This section of the Draft Environmental Impact Report (Draft EIR) presents an analysis of the proposed project's effect on the existing biological resources of the project area. To evaluate the biological resources found or potentially occurring on the approximately 83-acre project site, literature and database reviews were performed by Impact Sciences. Impact Sciences and independent biologists conducted field studies on the project site. A description of the literature and database review, as well as the field studies that were conducted, is provided in **Section 4.4.3.2** below.

4.4.1 ENVIRONMENTAL SETTING

The study area for the proposed project includes the Altamont Motorsports Project (AMP) project site, nearby adjacent properties, and the surrounding region.

4.4.1.1 Regional Setting

AMP is located in unincorporated Alameda County, approximately 5 miles northeast of the City of Livermore. The project site lies in northeastern Alameda County, in the Altamont Pass area. The Altamont Pass occurs where I-580 traverses the Altamont Hills portion of the Diablo Mountain Range. The Altamont Pass spans the Diablo Mountain Range from the Livermore Valley in the west to the San Joaquin Valley in the east. The elevation of the area is approximately 300 feet above mean sea level (msl). The region is characterized primarily by the grasslands and low shrubs of the Altamont Hills. Topography in the area ranges from gently rolling hills to steeply sloping ridges and drainages. The Altamont Pass is known for windy conditions, and approximately 5,000 wind turbines located to the north and south of the Altamont Pass make up the Altamont Pass Wind Resource Area.

4.4.1.2 Local

4.4.1.2.1 **Project Site Characteristics**

AMP is located on approximately 83 acres, of which approximately 35 acres are developed with the racetracks and related uses. The remainder of the project site is undeveloped. Approximately 40 acres of grassland in the northwestern portion of the property are available for parking during race events. Approximately 15 acres of this area are utilized for regular events, with an additional 25 acres utilized for larger events. The area most commonly used for parking is regularly mowed to prevent grass fires from hot exhaust systems. The remaining 25 acres is mowed or attended to as required for larger events, remaining as an unimproved open-space buffer zone. It is assumed that events associated with the raceway would occur up to seven days and nights a week.

A seasonal detention pond (approximately 200 feet by 75 feet in size) is located in the northern portion of the project site, adjacent to the 40-acre grassland parking area, and a small swale that conveys surface runoff from upslope areas to the detention pond is located to the southeast of the pond. Topography on the project site is characterized by gently rolling hills, with elevation ranging from approximately 300 to 400 feet msl. Soils on the project site are characterized as Linne clay loam with 3 to 15 percent slopes (Natural Resources Conservation Service 2007).

The project site is located immediately to the south of the I-205/I-580 interchange. The California Aqueduct is located to the northeast of the project site, north of I-205 and east of I-580. Land use surrounding the project site includes I-205/I-580 to the north, with open space interspersed with new development beyond; I-580 to the east, with open space beyond; and widely-spaced residential development to the south and west, interspersed with large expanses of undeveloped land. Land surrounding the project site is comprised of rolling hills vegetated with annual grasses, similar to the vegetation and topography on the project site.

4.4.1.2.2 Plant Communities

Three plant communities or land uses occur on the project site, including California annual grassland (Sawyer and Keeler-Wolf 1995), developed, and willow-cattail stand. The biological characteristics of these plant communities/land uses are described below, and their location is shown on **Figure 4.4-1**, **Plant Communities on the Altamont Motorsports Park Project Site**.

4.4.1.2.2.1 California Annual Grassland

The 83-acre project site is dominated by California annual grassland dominated by non-native species. The project site contains approximately 48 acres of this grassland (approximately 57 percent of the project site). The grassland contains the non-native soft chess (*Bromus hordeaceus*) and ripgut brome (*Bromus diandrus*) as dominant species. Shortpod mustard (*Hirschfeldia incana*) also occurs in varying densities throughout the grassland. The California annual grassland on the project site is low in botanical diversity, a common characteristic of disturbed habitats.

Approximately 40 acres of the on-site non-native grassland are currently utilized for parking during events. This 40-acre grassland parking area is located in the north and northwestern portion of the property. Vegetation within this portion of the site is more heavily disturbed than throughout the remainder of the site, and the grassland parking area is frequently mowed to prevent grass fires from hot, catalytic converter exhaust systems of parked vehicles. Therefore, vegetation is characterized by areas of bare dirt and sparse, low-growing annual grasses. Based on attendance at most events, guest parking is usually accommodated on approximately 15 acres of the 40-acre grassland parking area and this area is regularly mowed. The remaining 25 acres of available grassland parking can be utilized for additional parking for large events. These additional parking areas are mowed as required for larger events.



SOURCE: GlobeXplorer - 2006

FIGURE **4.4-1**



Plant Communities on the Altamont Motorsports Park Project Site

4.4 Biological Resources

4.4.1.2.2.2 Developed

Approximately 35 acres of the project site (approximately 42 percent of the site) have been developed with the raceway AMP and associated structures. These structures include the paved racetracks, a pit/paddock area, grandstands, and concessions stands. Parking areas associated with AMP include gravel and paved lots located in the western and northern portions of the site. The racetrack is illuminated for nighttime racing by pole-mounted lighting installed within the track's infield. The track is illuminated by 1500-watt metal halide fixtures mounted atop seven 50-foot metal poles within the track and four 50-foot metal poles flanking the grandstand. The grandstand and guest services area has localized path lighting, which continues on all the main pathways. The pit/paddock area has six existing light poles with a mix of 400- and 1000-watt metal halide fixtures mounted lights similar to those in the pit/paddock area. The raceway also has a sound system that is focused toward the grandstand area.

4.4.1.2.2.3 Seasonal Detention Pond and Swale

The project site contains a seasonal detention pond, the center of which is unvegetated. During both July 11, 2007 and September 11, 2007 site visits, the detention pond was completely dry and cracked soils were observed in this portion of the site during the September 11, 2007 field visit. In addition, a swale vegetated with California annual grassland occurs to the southeast of the detention pond. The swale drains waters from project site areas to the southeast into the detention pond. The seasonal detention pond and swale comprise 0.3 acre (0.36 percent) of the project site.

4.4.1.2.2.4 Willow-Cattail Stand

A small stand of trees, dominated by willows (*Salix* spp.), vegetates the eastern edge of the on-site detention pond. The stand of trees also contains a single cottonwood tree (*Populus fremontii*). The western portion of the detention pond contains a stand of cattails (*Typha latifolia*). The riparian vegetation at the detention pond makes up the willow-cattail stand, which covers 0.2 acre (0.25 percent) of the project site. During the September visit, the cattail stand was observed to be sparse, with thin, dry cattails resulting from disturbance.

4.4.1.2.3 Common Wildlife

The plant communities located in the undeveloped portions of the project site provide habitat for a variety of common wildlife species known to occur in the project area. A comprehensive assessment of wildlife species and populations on a particular project site can be difficult to obtain and confirm and, therefore, was not conducted, as some species only occur in a particular area for a short time, such as during migration or

dispersal from birthing grounds; some are inactive during one or more seasons; and some are nocturnal or reclusive in nature. Common species of wildlife discussed below were observed during field surveys conducted by Impact Sciences on September 11, 2007, or have the potential to occur on the site, based on the quality and extent of available on-site habitat and on the known habitat requirements and home ranges of species occurring in the region. Special-status wildlife species are discussed under the **Special-Status Resources** heading, below.

4.4.1.2.3.1 Invertebrates

The project site provides suitable habitat for a variety of common insect species. Praying mantis (*Stagmomantis californica*) was observed on site during the September 11, 2007, site visit. It is likely that a variety of common butterfly, moth, bee, and beetle species are also present on the project site.

Habitat for invertebrates that require vernal pools for survival, such as the various fairy shrimp (*Branchinecta* spp.) that are known to occur in the project region, does not occur on site, as is discussed in more detail later in **Table 4.4-2**, **Special-Status Wildlife Species Documented in Project Area**, below.

4.4.1.2.3.2 Amphibians

No amphibian species were observed during the field visit. The on-site seasonal detention pond holds water for part of the year and likely provides enough moisture to support the common amphibian species Pacific treefrog (*Pseudacris regilla*).

4.4.1.2.3.3 Reptiles

No reptile species were observed on the project site. However, the grasslands, willow-cattail stand, and developed portions of the property provide suitable habitat for a variety of common reptile species, and the high ground squirrel population on the project site provides a food source for several species of snakes. Common reptile species with the potential to occur on site include western rattlesnake (*Crotalus viridis*), southern alligator lizard (*Elgaria multicarinata*), common kingsnake (*Lampropeltis getulus*), gopher snake (*Pituophis melanoleucus*), western fence lizard (*Sceloporus occidentalis*), and common garter snake (*Thamnophis sirtalis*).

4.4.1.2.3.4 Birds

The grassland and willow-cattail stand habitats on the project site provide potentially suitable foraging and nesting habitat for a variety of common bird species. During the field visit two common bird species, vulture (*Cathartes aura*) and red-tailed hawk (*Buteo jamaicensis*), were observed. Other common bird species that could potentially utilize the site include the following: great horned owl (*Bubo virginianus*), house finch

(*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), western meadowlark (*Sturnella neglecta*), barn owl (*Tyto alba*), and mourning dove (*Zenaida macroura*).

4.4.1.2.3.5 Mammals

A sizeable population of California ground squirrel (*Spermophilus beecheyi*) is present on the site, and burrows of this species were observed in high density throughout the site. One black-tailed jackrabbit (*Lepus californicus*) individual was observed among the willows at the detention pond edge. Coyote (*Canis latrans*) scat was observed on the site.

Other common mammal species known to occur in the project area and likely to utilize the project site include opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), raccoon (*Procyon lotor*), and Botta's pocket gopher (*Thomomys bottae*).

4.4.1.2.4 Special-Status Biological Resources

For the purposes of analysis in this EIR, "special status" refers to those resources that meet one or more of the following criteria:

- Plant and animal species listed by the US Fish and Wildlife Service (USFWS) or California Department of Fish and Game (CDFG) as Threatened or Endangered, proposed for listing as Threatened or Endangered, or candidates for listing as Threatened or Endangered.
- Plant and animal species considered as "Endangered, Rare, or Threatened" as defined by Section 15380 of the *California Environmental Quality Act (CEQA) Guidelines*. Section 15380(b) states that a species of animal or plant is "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is "Rare" when either "(A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become Endangered if its environment worsens; or (B) the species is likely to become Endangered within the foreseeable future throughout all or a portion of its range and may be considered 'Threatened' as that term is used in the federal Endangered Species Act" (ESA).
- Plants included on Lists 1 or 2 of the California Native Plant Society (CNPS). These species are included because the CNPS is an authority recognized by the CDFG on the status of Rare plant species in California, and because the criteria for placement on List 1 or List 2 are similar to criteria that CDFG and USFWS use for species considered as candidates for listing or that are already listed as Threatened or Endangered.
- Animal species designated as "Species of Special Concern" or "Fully Protected" by the CDFG. Although these species have no legal status under the California Endangered Species Act (CESA), the CDFG

recommends protecting them, as populations of these species are generally declining and they could be listed as Threatened or Endangered (under the CESA) in the future.

- Birds designated by the USFWS as "Birds of Conservation Concern." Although these species have no legal status under the ESA, the USFWS recommends protecting them, as populations of these species are generally declining and they could be listed as Threatened or Endangered (under the ESA) in the future.
- Riparian habitat or other natural communities considered sensitive or otherwise regulated by the CDFG.
- Wetlands or other aquatic habitats under the jurisdiction of the Army Corps of Engineers (ACOE).
- Established resident or migratory wildlife movement corridors.
- Trees, habitats, or other resources protected by local policies and ordinances or otherwise considered of local concern.

4.4.1.2.4.1 Special-Status Plant Species

Review of the CDFG California Natural Diversity Database (CNDDB) and the CNPS databases for the Midway US Geological Service (USGS) 7.5-minute quadrangle (in which the project site is located) and the surrounding Byron Hot Springs, Clifton Court Forebay, Union Island, Tracy, Lone Tree Creek, Cedar Mountain, Mendenhall Springs, and Altamont quadrangles identified 40 special-status plant species that have been documented in the project region. These species are identified in **Table 4.4-1, Special-Status Plant Species Documented in the Project Area**, along with their regulatory status, habitat requirements, flowering period, and potential to occur on the site.

For the reasons discussed in **Table 4.4-1**, the following 32 special-status plant species that are known to occur in the project area are not expected to occur on the project site: Sharsmith's onion (*Allium sharsmithiae*), large-flowered fiddleneck (*Amsinckia grandiflora*), Suisun Marsh aster (*Aster lentus*), alkali milk-vetch (*Astragalus tener* var. *tener*), heartscale (*Atriplex cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*), chaparral harebell (*Campanula exigua*), Congdon's tarplant (*Centromadia parryi* spp. *congdonii*), Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*), hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus*), palmate-bracted bird's-beak (*Cordylanthus palmatus*), Mt. Hamilton coreopsis (*Coreopsis hamiltonii*), Livermore tarplant (*Delphinium recurvatum*), talus fritillaria (*Fritillaria falcata*), Napa western flax (*Hesperolinon serpentium*), rose-mallow (*Hibiscus lasiocarpus*), Contra Costa goldfields (*Lasthenia conjungens*), legenere (*Legenere limosa*), Mason's lilaeopsis (*Lilaeopsis masonii*), delta mudwort (*Limosella subulata*), Hall's bush mallow (*Malacothamnus hallii*), Mt. Diablo cottonweed (*Micropus amphibolus*), little mousetail (*Myosurus minimus* ssp.

apus), Mt. Diablo phacelia (*Phacelia phacelioides*), hairless popcorn-flower (*Plagiobothrys glaber*), Suisun Marsh aster (*Symphyotrichum lentum*), saline clover (*Trifolium depauperatum* var. *hydrophilum*), and caper-fruited tropidocarpum (*Tropidocarpum capparideum*).

Based upon documented occurrences near the site and the presence of suitable habitat on the site (as discussed in **Table 4.4-1**), eight special-status plant species have the potential to occur on the site. These include four CNPS List 1B.1 plant species, three CNPS List 1B.2 plant species, and one CNPS List 2.2 plant species.

The following CNPS List 1B.1 plant species that have potential to occur on the project site:

- big tarplant (Blepharizonia plumosa)
- round-leaved filaree (California macrophylla)
- diamond-petaled California poppy (Eschscholzia rhombipetala)
- showy madia (Madia radiata)

The following CNPS List 1B.2 plant species have potential to occur on the project site:

- bent-flowered fiddleneck (Amsinckia lunaris)
- Lemmon's jewelflower (Caulanthus coulteri var. lemmonii)
- Diablo helianthella (Helianthella castanea)

The following CNPS List 2.2 plant species has the potential to occur on the project site:

• rayless ragwort (*Senecio aphanactis*)

		Status			Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Sharsmith's onion Allium sharsmithiae			List 1B.3	Cismontane woodland with rock, serpentine slopes; elevation 400–1,200 meters.	Bulbiferous herb March–May	<i>Not Expected:</i> The project site does not contain suitable habitat or soils for this species. In addition, the project site occurs below the elevational range for this species.
Large-flowered fiddleneck Amsinckia grandiflora	FE	SE	List 1B.1	Various soils within cismontane woodland or valley and foothill grassland; elevation 275–550 meters.	Annual herb April–May	<i>Not Expected:</i> The project site is located below the recorded elevational range of this species.
Bent-flowered fiddleneck Amsinckia lunaris			List 1B.2	Cismontane woodland, valley and foothill grassland, or coastal bluff scrub; elevation 3–500 meters.	Annual herb March–June	<i>Potential:</i> The grassland habitat on the project site provides potentially suitable habitat.
Suisun Marsh aster Aster lentus			List 1B.2	Marshes and swamps (both brackish and freshwater). Most often seen along sloughs with hydrophilic plant species (such as reed (<i>Phragmites</i> spp.), sedge (<i>Scirpus</i> spp.), cattail (<i>Typha</i> spp.), and blackberry (<i>Rubus</i> <i>ursinus</i>); elevation 0–3 meters.	Rhizomatous herb May–Nov	<i>Not Expected:</i> Suitable marshy habitat does not occur on site although a seasonal pond is present. In addition, the project site occurs above the elevational range for this species.

 Table 4.4-1

 Special-Status Plant Species Documented in the Project Area

		Status			Life Form		
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence	
Alkali milk-vetch Astragalus tener var. tener			List 1B.2	Low ground, alkali flats, and flooded lands within valley and foothill annual grassland habitats or playas; also found in vernal pools. Elevation 1–170 meters.	Annual herb March–June	<i>Not Expected:</i> The project site does not contain suitable habitat for this species, as the on-site detention pond does not have the characteristics of an alkali flat or vernal pool, and no such areas occur within the grasslands on the project site.	
Heartscale Atriplex cordulata			List 1B.2	Chenopod scrub, valley and foothill grassland, and meadow habitats. Sandy, saline, alkaline soils with alkaline flats and scalds in the Central Valley. Elevation 1–375 meters, and 600 meters.	Annual herb April–Oct	<i>Not Expected:</i> The project site does not contain the alkaline soils required for this species.	
Brittlescale Atriplex depressa			List 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and sometimes vernal pools. Usually found in alkali scalds or alkali clay in meadows or annual grassland. Rarely associated with riparian marshes or vernal pools. Elevation 1–320 meters.	Annual herb May-Oct	<i>Not Expected:</i> The project site does not contain the alkaline soils required for this species.	

		Status			Life Form	
Common and				Habitat	and Flowering	Potential On-Site
Scientific Name	Federal	State	CNPS	Requirements	Period	Occurrence
San Joaquin spearscale Atriplex joaquiniana			List 1B.2	Chenopod scrub, alkali meadow, and valley and foothill grassland habitats with seasonal alkali wetlands or alkali sink scrub containing species such as saltgrass (<i>Distichlis</i> <i>spicata</i>) and heath (<i>Frankenia</i> sp.). Elevation 1–250 meters.	Annul herb April–October	<i>Not Expected:</i> The project site does not contain the alkaline soils required for this species.
Big-scale balsamroot <i>Balsamorhiza</i> <i>macrolepis</i> var. <i>macrolepis</i>			List 1B.2	Valley and foothill grassland, chaparral, and cismontane woodland; can be found on serpentine soils; elevation 35– 1,400 meters.	Perennial herb March–June	Not Expected: The site contains limited, disturbed potential habitat. This species has been reported to the CDFG from only one location in the project vicinity, approximately 10 miles to the southwest. The reported sighting is from a location with native vegetation and wildflowers. In addition, this is generally a species found at higher elevations than those on the project site.
Big tarplant Blepharizonia plumosa			List 1B.1	Valley and foothill grassland on dry hills and plains. Found on clay to clay-loam soils, usually on slopes and often in burned areas. Elevation 15–455 meters.	Annual herb July–October	<i>Potential:</i> The grassland habitat on the project site provides potentially suitable habitat. Site surveys were conducted during the recorded flowering period but this species was not observed.

		Status			Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Round-leaved filaree <i>California</i> macrophylla			List 1B.1	Clay soils within cismontane woodland, and valley and foothill grassland; elevation 15–1,200 meters.	Annual herb March–May	<i>Potential:</i> This species has been reported from eight locations in the project vicinity with similar habitat characteristics as those found on the project site (CDFG 2007). The grassland habitat on the project site provides potentially suitable habitat.
Chaparral harebell <i>Campanula</i> exigua			List 1B.2	Rocky sites within chaparral, usually on serpentine soils; elevation 300–1,250 meters.	Annual herb May–June	<i>Not Expected:</i> Suitable habitat does not occur on site; site lacks rocky substrates and serpentine soils. In addition, the project site occurs below the normal elevational range of this species.
Lemmon's jewelflower <i>Caulanthus</i> <i>coulteri var.</i> <i>lemmonii</i>			List 1B.2	Pinyon-juniper woodland, valley, and foothill grassland; elevation 80–1,220 meters.	Annual herb March–May	<i>Potential:</i> The grassland habitat on the project site provides potentially suitable habitat.
Congdon's tarplant <i>Centromadia</i> <i>parryi</i> spp. <i>congdonii</i>			List 1B.2	Valley and foothill grassland with alkaline soils, sometimes described as heavy, white clay; elevation 1–230 meters.	Annual herb May–Oct	<i>Not Expected:</i> The alkaline soils in which this plant species is normally found do not occur on the project site.
Mt. Hamilton thistle <i>Cirsium</i> <i>fontinale</i> var. <i>campylon</i>			List 1B.2	Cismontane woodland, chaparral, valley, and foothill grassland, in seasonal and perennial drainages on serpentine soils. Between elevation of 95–890 meters.	Perennial herb April–Oct	<i>Not Expected:</i> The serpentine soils in which this plant species is normally found do not occur on the project site.

		Status			Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Hispid bird's- beak <i>Cordylanthus</i> <i>mollis</i> ssp. <i>hispidus</i>			List 1B.1	Meadows, playas, valley and foothill grassland, in damp, alkaline soils, especially in alkaline meadows and alkali sinks with <i>Distichlis</i> . Elevation of 100–155 meters.	Annual herb (hemiparasitic- sitic) June–September	<i>Not Expected</i> : The alkaline habitat in which this species is normally found does not occur on the project site.
Palmate-bracted bird's-beak <i>Cordylanthus</i> <i>palmatus</i>	FE	SE	List 1B.1	Chenopod scrub and valley and foothill grassland, usually on pescadero silty clay (which is alkaline) with <i>Distichlis,</i> <i>Frankenia,</i> etc. Between elevation of 5–155 meters.	Annual herb (hemiparasitic- sitic) May–Oct	<i>Not Expected</i> : The alkaline habitat in which this species is normally found does not occur on the project site.
Mt. Hamilton coreopsis <i>Coreopsis</i> hamiltonii			List 1B.2	Cismontane woodland on steep, rocky shale talus with open southwestern exposure; elevation 530–1,300 meters.	Annual herb March–May	<i>Not Expected</i> : The high elevation, steep habitat in which this plant species is normally found does not occur on site. The project site occurs below the normal elevational range of this species.
Livermore tarplant Deinandra baciga lupii			List 1B.2	Meadows and seeps with alkaline soils; elevation 150–185 meters.	Annual herb June–Oct	<i>Not Expected:</i> Meadow and seep habitat with alkaline soils are not present on the project site. In addition, the project site occurs below the normal elevational range of this species.
Hospital Canyon larkspur Delphinium californicum ssp. interius			List 1B.2	Wet, boggy meadows, openings in cismontane woodland and chaparral, and in canyons; elevation 225–1,060 meters.	Perennial herb April–June	Not Expected: Wet, boggy habitat does not occur on site. In addition, the project site occurs below the normal elevational range of this species.

		Status			Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Recurved larkspur Delphinium recurvatum			List 1B.2	Chenopod scrub, valley and foothill grassland, and cismontane woodland with alkaline soils. Often in valley saltbush or valley chenopod scrub. Elevation 3–685 meters.	Perennial herb March–June	<i>Not Expected:</i> It is unlikely that this species would occur on site, given the lack of alkaline soils, and the fact that all observations of this species reported to the CDFG from the project vicinity have been found on alkaline soils, generally with alkaline plant species, such as <i>Distichlis spicata</i> (CDFG 2007).
Diamond-petaled California poppy Eschscholzia rhombipetala			List 1B.1	Alkaline, clay slopes and flats in valley and foothill grassland; elevation 0–975 meters.	Annual herb March–April	<i>Potential:</i> On-site grasslands with clay loam soils provide potentially suitable habitat.
Talus fritillary Fritillaria falcata			List 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest, on shale, granite, or serpentine talus. Between elevations of 300– 1,525 meters.	Bulbiferous herb March–May	<i>Not Expected:</i> This species occurs at a higher elevation and in higher elevation habitat types than occur on the project site. This species would not be expected on the project site.

		Status			Life Form			
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence		
Diablo helianthella <i>Helianthella</i> <i>castanea</i>			List 1B.2	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils. Often in partial shade. Between 25–1,300 meters.	Perennial herb March–June	Potential: Marginal habitat for this species occurs on site. Where this species is observed in grassland, it is generally observed at the interface of two habitat types, such as at the edge of chaparral and oak woodland (CDFG 2007), or in grassy openings in woodlands, chaparral, and coastal scrub (Contra Costa County 2002). Such grassy openings do not occur on site. However, due to the presence of grasslands on the project site, as well as the fact that two sightings of this species have been reported from within approximately 10 miles of the site (to the southwest), the presence of this species cannot be ruled out within a presence/absence survey.		
Napa western flax Hesperolinon serpentium			List 1B.1	Chaparral; mostly found in serpentine chaparral. Elevation 225–850 meters.	Annual herb May–July	<i>Not Expected</i> : Chaparral habitat and serpentine soils do not occur on the project site.		
Rose-mallow Hibiscus lasiocarpus			List 2.2	Freshwater marshes and swamps. Moist, freshwater-soaked river banks and low peat islands in sloughs. In California, known from the Delta watershed. Elevation 0–150 meters.	Rhizomatous herb emergent June–Sept	<i>Not Expected</i> : Marsh and swamp habitat does not occur on the project site.		

	Status				Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Contra Costa goldfields <i>Lasthenia</i> <i>conjungens</i>	FE		List 1B.1	Mesic sites within cismontane woodland, alkaline playa, valley and foothill grassland, and vernal pools; elevation 0–470 meters.	Annual herb March–June	<i>Not Expected:</i> On-site grassland does not contain vernal pools or suitable mesic habitat for this species.
Legenere <i>Legenere limosa</i>			List 1B.1	Found in beds of vernal pools. Many historical occurrences are extirpated. Elevation of 1–880 meters.	Annual herb April–June	<i>Not Expected</i> : Vernal pool habitat does not occur on the project site.
Mason's lilaeopsis Lilaeopsis masonii		SR	List 1B.1	Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion, in freshwater and brackish marshes, or riparian scrub; elevation 0–10 meters.	Rhizomatous herb April– November	<i>Not Expected</i> : Suitable habitat does not occur on the project site. In addition, project site occurs above expected elevational range of this species.
Delta mudwort <i>Limosella</i> subulata			List 2.1	Riparian scrub, freshwater or brackish marsh, usually on mud banks of the Delta in marshy or scrubby riparian associations, often with <i>Lilaeopsis masonii</i> . Probably the rarest of the suite of delta rare plants. Elevation 0–3 meters.	Stoloniferous herb May–August	<i>Not Expected:</i> Suitable habitat does not occur on the project site. In addition, project site occurs above expected elevational range of this species.
Showy madia Madia radiata			List 1B.1	Valley and foothill grassland, cismontane woodland, and chenopod scrub; mostly on adobe clay in grassland or among shrubs. Elevation 25– 1,125 meters.	Annual herb March–May	<i>Potential:</i> On-site grasslands with clay loam soils provide potentially suitable habitat.

		Status			Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Hall's bush mallow <i>Malacothamnus</i> <i>hallii</i>			List 1B.2	Chaparral; some populations on serpentine soil. Elevation 10–550 meters.	Evergreen shrub May–September	<i>Not Expected:</i> Suitable habitat is not present on the project site. In addition, this species is an evergreen shrub and, if present, could have been observed during field visits at the project site. Therefore, this species is not expected to occur.
Mt. Diablo cottonweed <i>Micropus</i> <i>amphibolus</i>			List 3.2	Broadleaf upland forest, chaparral, cismontane woodland, and valley and foothill grassland with rocky soils; elevation 45–825 meters.	Annual herb March–May	Potential: On-site grassland does not contain rocky soils. However, because this species is known to occur in grassland habitat in the project region, it is not possible to rule out presence of the species without a presence/absence survey. Therefore, the remote possibility of this species occurring on site exists.
Little mousetail Myosurus minimus ssp. apus			List 3.1	Alkaline vernal pools in valley and foothill grassland; elevation 20–640 meters.	Annual herb March–June	<i>Not Expected:</i> On-site grasslands do not contain vernal pool habitat and/or alkaline soils.
Mt. Diablo phacelia <i>Phacelia</i> phacelioides			List 1B.2	Chaparral, cismonatane woodland, on rock outcrops and talus slopes, sometimes on serpentine soils. Elevation 500–1,370 meters.	Annual herb April–May	<i>Not Expected:</i> Suitable habitat does not occur on site; in addition, the project site occurs below the normal elevational range for this species.

		Status			Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Hairless popcorn- flower Plagiobothrys glaber			List 1A	Alkaline meadows and seeps, as well as coastal salt marshes and swamps; elevation 5–180 meters.	Annual herb March–May	<i>Not Expected:</i> The last confirmed sighting of this species was recorded in 1954. This species is now presumed extinct in California (CNPS 2007). It is considered unlikely that this plant species would be found on the project site.
Rayless ragwort Senecio aphanactis			List 2.2	Chaparral, cismontane woodland, or coastal scrub; sometimes from drying alkaline flats. Elevation 15–800 meters.	Annual herb January–April	<i>Potential:</i> Although alkaline flats have not been observed on the project site, this species is known to occur in a variety of habitat types. In addition, the closest sighting of this species has been reported to the CDFG from barrens with non-native grassland species, such as <i>Plantago erecta</i> , <i>Bromus madritensis</i> ssp. <i>rubens, Erodium</i> spp., <i>Avena fatua</i> , etc (CDFG 2007). Therefore, the potential for this plant species to occur within on-site grasslands exists.
Suisun Marsh aster Symphyo- trichum lentum			List 1B.2	Brackish and freshwater marshes and swamps; elevation 0–3 meters.	Rhizomatous herb May–Nov	<i>Not Expected:</i> Suitable habitat does not occur on site.
Saline clover Trifolium depauperatum var. hydrophilum			List 1B.2	Mesic, alkaline sites, such as marshes and swamps, valley and foothill grassland, or vernal pools. Elevation 0–300 meters.	Annual herb April–June	<i>Not Expected:</i> Limited potential habitat: although the site contains grasslands, no evidence of vernal pools or alkaline soils was observed.

	Status				Life Form	
Common and Scientific Name	Federal	State	CNPS	Habitat Requirements	and Flowering Period	Potential On-Site Occurrence
Caper-fruited tropidocarpum <i>Tropidocarpum</i> <i>capparideum</i>			List 1B.1	Valley and foothill grassland (alkaline hills/alkaline clay soils); elevation 0–455 meters.	Annual herb March–April	<i>Not Expected:</i> Although the site contains grasslands, no evidence of alkaline, clay soils was observed. Where this species has been reported to the CDFG in the project vicinity, it has been reported primarily from alkaline soils (CDFG 2007). In addition, observations of this species reported to the CNPS from the project area are coded with "uncertainty or extirpation" (CNPS 2007). Therefore, it is considered unlikely that this species would occur on site.

STATUS KEY:	<u>CNPS</u>
Federal:	List 1A = Plants presumed extinct in California
FE = Federal Endangered	List 1B = Plants Rare, Threatened, or Endangered in California and elsewhere
State:	List 2 = Plants Rare, Threatened, or Endangered in California, but more common
SE = State Endangered	elsewhere
SR = State Rare	List 3 = Plants about which we need more information
	.1 = seriously Endangered in California
	.2 = fairly Endangered in California
	.3 = not very Endangered in California

4.4.1.2.4.2 Special-Status Wildlife Species

Review of the CDFG CNDDB for the Midway quadrangle and surrounding eight quadrangles resulted in the identification of 32 special-status wildlife species that are recorded as occurring in the project area. In addition, two special-status wildlife species not reported in the CNDDB search, but reported to occur in the project site region, based on personal knowledge of biological resources occurring in the project region, as well as review of texts (including the General Plan for the nearby City of Livermore), were included in the assessment for special-status wildlife species with the potential to occur on site. These 34 special-status wildlife species are identified in **Table 4.4-2**, **Special-Status Wildlife Species Documented in the Project Area**, along with their regulatory status, habitat requirements, and potential to occur on the site.

For the reasons discussed in **Table 4.4-2**, the following 12 special-status species that are known to occur in the project area are not expected to occur on the project site: longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), Midvalley fairy shrimp (*Branchinecta mesovallensis*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), curved-foot hygrotus diving beetle (*Hygrotus curvipes*), silvery legless lizard (*Anniella pulchra pulchra*), western pond turtle (*Emys (=Clemmys) marmorata*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), foothill yellow-legged frog (*Rana boylii*), tri-colored blackbird (*Agelaius tricolor*), bald eagle (*Haliaeetus leucocephalus*), and Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*).

One special-status wildlife species, burrowing owl (*Athene cunicularia*), a California Species of Concern (CSC) and a Bird of Conservation Concern (BCC), has been observed on the site and is known to actively use the site for nesting. Based upon documented occurrences near the site and the on-site presence of suitable habitat (as discussed in **Table 4.4-2**), the following 12 special-status wildlife species have the potential to reside within or significantly utilize the site:

- The federally-listed as Endangered and California-listed as Threatened San Joaquin kit fox (*Vulpes macrotis mutica*);
- Two species federally listed as Threatened and considered CSC, California tiger salamander (*Ambystoma californiense*) and California red-legged frog (*Rana aurora draytonii*);
- Three bird species considered CSC and BCC, ferruginous hawk (*Buteo regalis*), California horned lark (*Eremophila alpestris actia*), and loggerhead shrike (*Lanius ludovicianus*);
- Four species considered CSC, San Joaquin whipsnake (*Masticophis flagellum ruddocki*), coast (California) horned lizard (*Phrynosoma coronatum (frontale* population)), western spadefoot toad (*Spea (=Scaphiopus) hammondii*), and American badger (*Taxidea taxus*);
- One CFP species, white-tailed kite (*Elanus leucurus*); and
- One CNDDB Special Animal, San Joaquin pocket mouse (*Perognathus inornatus inornatus*).

The following nine special-status wildlife species may forage on the site, but would not be expected to nest or roost there:

- One species that is California listed as Threatened and considered a BCC, Swainson's hawk (*Buteo swainsoni*);
- Two bird species considered CSC and BCC, golden eagle (*Aquila chrysaetos*) and prairie falcon (*Falco mexicanus*);
- Five species considered CSC, Cooper's hawk (*Accipiter cooperii*), northern harrier (*Circus cyaneus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), and western mastiff bat (*Eumops perotis*); and
- One CNDDB Special Animal, fringed myotis (*Myotis thysanodes*).

Common and	Status		Habitat	Potential On-Site
Scientific Name	Federal	State	Requirements	Occurrence
Invertebrates				
Longhorn fairy shrimp Branchinecta longiantenna	FE		Endemic to the eastern margin of the central coast mountains in seasonally astatic grassland vernal pools. Found in small, clear-water depressions in sandstone and clear to turbid clay/grass-bottomed pools in shallow swales.	<i>Not Expected:</i> The project site does not contain suitable habitat for this species. The detention pond on the project site does not provide the vernal pool habitat this species requires.
Vernal pool fairy shrimp Branchinecta lynchi	FT		Endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains, in astatic rain-filled pools. Inhabits small, clear-water sandstone depression pools and grassed swales, earth slumps, and basalt-flow depression pools.	<i>Not Expected:</i> The project site does not contain suitable habitat for this species. The detention pond on the project site does not provide the vernal pool habitat this species requires.
Midvalley fairy shrimp Branchinecta mesovallensis		CNDDB Special Animal	Vernal pools in the Central Valley.	<i>Not Expected:</i> The project site does not contain suitable habitat for this species. The detention pond on the project site does not provide the vernal pool habitat this species requires.
Valley elderberry longhorn beetle Desmocerus californicus dimorphus	FT		Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>). Prefers to lay eggs in elderberries 2– 8 inches in diameter, and some preference is shown for "stressed" elderberries.	<i>Not Expected:</i> The project site does not contain the elderberry habitat required for this species; no elderberry occurs on site.
Curved-foot hygrotus diving beetle <i>Hygrotus</i> <i>curvipes</i>		CNDDB Special Animal	Aquatic; known only from Alameda and Contra Costa counties.	<i>Not Expected:</i> The detention pond on the project site is seasonal and does not contain the aquatic habitat necessary to sustain this species.

 Table 4.4-2

 Special-Status Wildlife Species Documented in the Project Area

Common and	Status		Habitat	Potential On-Site
Scientific Name	Federal	State	Requirements	Occurrence
Amphibians				
California tiger salamander Ambystoma californiense	FT	CSC	Requires both terrestrial and aquatic habitats for complete lifecycle, as adult utilizes terrestrial habitat, including grassland and oak woodland or oak savannah, and it breeds in ponds, where larvae begin lifecycle. In upland habitat, needs underground refuges, especially ground squirrel burrows. Vernal pools or other seasonal water sources required for breeding. Central Valley distinct population unit (DPS) listed as federally Threatened; Santa Barbara and Sonoma County DPS listed as federally Endangered. The project site is within the range of the Central Valley population, within the East Bay Region	Potential: The project site occurs within the range of California tiger salamander (CTS). This species has been reported from many locations in the project site vicinity, the nearest of which is reported from approximately 1.7 miles to the northwest (CNDDB). Other near-by occurrences include reported sightings from 2.3 miles to the west and 3 miles to the southwest. The on-site seasonal detention pond could provide suitable breeding habitat, with surrounding on-site grassland habitat with small mammal burrows providing suitable over- summering habitat

Common and	Status		Habitat	Potential On-Site	
Scientific Name	Federal	State	Requirements	Occurrence	
Amphibians (conti	nued)		·		
California red- legged frog <i>Rana aurora</i> <i>draytonii</i>	FT	CSC	Lowlands and foothills in or near permanent sources of deep (greater than 2 1/3-foot deep), still or slow moving water. Larval development requires 11–20 weeks of permanent water. Found in water sources such as ponds, lakes, reservoirs, streams and adjacent riparian woodlands. Adults require dense, shrubby, or emergent riparian vegetation for estivation habitat.	Potential: Although the on-site detention pond is seasonal and does not provide year-round water, it is possible that in some years the pond could provide water for sufficient periods of time to support larval development. In addition, the stand of willows at the pond's edge provides potential estivation habitat for adults of the species. This species has been reported from many locations in the project vicinity, the nearest of which is approximately 0.4 mile north of the project site. Based on aerial photography, this documented occurrence appears to have a hydrologic connection to the on-site seasonal pond. It is noted that either an aqueduct or freeway separates the project site from each of the nearest reported California red-legged frog observations, reducing the likelihood of this species utilizing the project site. However, due to the possibility for hydrologic connectivity or overland travel by the species, without surveys, it cannot be ruled out from potentially utilizing the site.	
Foothill yellow- legged frog <i>Rana boylii</i>		CSC	Partiy shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Cobble sized substrate required for egg laying. Needs at least 15 weeks to attain	<i>Not Expected:</i> Suitable habitat for this species is not present on site.	
			metamorphosis.		

Common and	Status Federal State		Habitat	Potential On-Site
Scientific Name			Requirements	Occurrence
Amphibians (conti	nued)			
Western spadefoot toad Spea (=Scaphiopus) hammondii		CSC	Occurs primarily in grassland habitats, but can be found in valley- foothill hardwood woodlands. Breeds in temporary pools; aestivates in self-constructed burrows and occasionally in small mammal burrows. Vernal pools are essential for breeding and egg- laying.	<i>Potential</i> : This species has been reported to the CDFG from many locations in the project vicinity, the nearest of which is located approximately 7 miles south of the project site (CNDDB). The detention pond and various other indentations (such as tire ruts) within grassland habitat on the project site could provide potentially suitable breeding habitat. Grasslands with small mammal burrows provide suitable aestivation habitat.
Reptiles	1	1	1	
Silvery legless lizard Anniella pulchra pulchra		CSC	Sandy or loose loamy soil under sparse vegetation. Soil moisture is essential; prefer soils with a high moisture content.	Not Expected: This species has been reported from a location approximately 5 miles to the south of the project site (CNDDB). However, the disturbed nature of the project site, including use of large portions of the site for parking, resulting in compacted soils, makes it unlikely that this species would occur. In addition, the dry conditions throughout the majority of the site result in the site lacking the high moisture content necessary for this species.
Western pond turtle <i>Emys</i> (=Clemmys) marmorata		CSC	Aquatic habitats including ponds, streams, and irrigation ditches. Requires basking sites such as partially submerged logs, vegetation mats, or open mud banks.	<i>Not Expected:</i> The on-site detention pond is seasonal and is dry during the summer; therefore, suitable aquatic habitat does not occur on the project site.
San Joaquin whipsnake Masticophis flagellum ruddocki		CSC	Inhabits open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub. Needs mammal burrows for refuge and oviposition sites.	<i>Potential</i> : This species is known to occur in the project region, and has been reported to the CDFG from several locations in the project area, the nearest of which is from approximately 1 mile to the south of the project site (CNDDB). Grasslands with mammal burrows on the project site provide suitable habitat.

Common and	Status		Habitat	Potential On-Site
Scientific Name	Federal	State	Requirements	Occurrence
Reptiles (continued	l)			
Alameda whipsnake <i>Masticophis</i> <i>lateralis</i> <i>euryxanthus</i>	FT	ST	Restricted to valley-foothill hardwood habitat of the coast ranges between the vicinity of Monterey and northern San Francisco Bay. Inhabits south-facing slopes and ravines where shrubs form a vegetative mosaic with oak trees and grasses.	<i>Not Expected:</i> The project site lacks the slopes and vegetation required for this species. In addition, the project site occurs outside the expected range for this species.
Coast (California) horned lizard <i>Phrynosoma</i> <i>coronatum</i> (<i>frontale</i> population)		CSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	<i>Potential</i> : The preferred habitats for this species (washes or other sandy soils) are not present, but on-site grasslands provide potentially suitable habitat. This species has been observed at many locations in the project vicinity, several of which are from sites with similar, non-native grassland habitat. The closest reported sighting of this species is from a site approximately 0.5 mile to the north.
Birds				
Cooper's hawk (nesting) Accipiter cooperii		CSC	Inhabits primarily open, interrupted or marginal woodlands. Nests mainly in riparian groves of deciduous trees in canyon bottoms on river floodplains. Also nests in coast live oak.	Potential (but not for nesting): This species is expected to winter in the area (Sibley 2000) and has the potential to forage on the project site. However, the lack of sizable tree habitat on the project site and adjacent areas makes it unlikely that this species would heavily utilize the site for foraging, and it would not be expected to nest on the site. In addition, this species would be expected only to winter, and not to breed, in the project site vicinity (Sibley 2000).
Tricolored blackbird (nesting colony) Agelaius tricolor	BCC	CSC	Nests in freshwater marshes and riparian scrub.	<i>Not Expected:</i> The willow-cattail stand found in the on-site detention basin is sparse and does not provide suitable foraging habitat or nesting substrate for this species.

Common and	Status		Habitat	Potential On-Site
Scientific Name	Federal	State	Requirements	Occurrence
Birds (continued)				
Burrowing owl (burrow sites) <i>Athene</i> <i>cunicularia</i>	BCC	CSC	Forages and nests in open, dry annual or perennial grasslands, deserts, and open scrub characterized by low-growing vegetation with small mammal burrows. Subterranean nesting, dependent upon burrowing mammals, especially, California ground squirrel.	<i>Observed/Present:</i> Numerous (72) observations of this species have been reported to the CDFG from within the project USGS quadrangle (Midway) and the surrounding eight quadrangles (CNDDB). Burrowing owl has been observed on the project site: a total of 8 active burrowing owl burrows (containing both adults and juveniles) were observed on the site by Pacific Biology during the July 2007 site visit. Suitable habitat is present throughout all undeveloped portions of the site, including grasslands and on-site berms with ground squirrel burrows. During the September 11, 2007, field visit by Impact Sciences, several ground squirrel burrows with burrowing owl sign (feathers, white wash, pellets, and scattered small mammal bones) were observed.
Golden eagle (nesting and wintering) Aquila chrysaetos	BCC	CSC	Rolling foothills, mountain areas, sage-juniper flats, and desert habitats. Nesting habitat consists of cliff-walled canyons throughout most of range; also nests in large trees in open areas.	<i>Potential (but not for nesting):</i> This species is known in the project area (CNDDB) and may forage on site. However, suitable nesting and winter roosting habitat for this species does not occur on the site.
Ferruginous hawk (wintering) <i>Buteo regalis</i>	BCC	CSC	Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. In some areas, population trends may follow lagomorph population cycles.	<i>Potential</i> : This species is known to inhabit the project region during wintering months (CNDDB). On- site grasslands (especially those with light post or telephone post perches) could be utilized by this species for foraging. This species could utilize the site for winter roosting, as it is known to roost in/on a variety of structures, including utility structures and the ground (Bechard and Schmutz 1995).

Common and	Sta	tus	Habitat	Potential On-Site	
Scientific Name	Federal	State	Requirements	Occurrence	
Birds (continued)			·		
Swainson's hawk (nesting) Buteo swainsoni	BCC	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch areas. Requires adjacent suitable foraging areas such as grasslands, or alfalfa/grain fields, supporting rodent populations.	Potential (but not for nesting): This species is known from many (78) locations in the project USGS quadrangle (Midway) and the surrounding eight quadrangles. The closest documented nest site has been reported to the CDFG from approximately 2.7 miles to the northeast (CNDDB). This species may forage on the project site, but it would be unlikely to nest on the site, as nesting habitat is highly marginal due to lack of large trees.	
Northern harrier (nesting) <i>Circus cyaneus</i>		CSC	Inhabits coastal salt and freshwater marshes. Nests and forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge. Nests are large mounds of sticks in wet areas.	Potential (but not for nesting): This species is known from the project area (CNDDB) and could forage on the project site. However, this species would be unlikely to nest on site, as the cattails and other shrubby vegetation at debris basin edge are not substantial enough to support a nest of this species.	
White-tailed kite (nesting) <i>Elanus</i> <i>leucurus</i>		CFP	This species utilizes open grasslands, meadows, or marshes for foraging, and dense-topped trees for nesting and perching. Often found within rolling foothills and valley margins, where scattered oaks and river bottomlands occur, or where marshes are found next to deciduous woodland. Will nest in large bushes or trees, often in isolated stand, surrounded by open foraging habitat.	<i>Potential:</i> This species has been observed in grassland habitat in the project site vicinity (CNDDB) and may forage on the project site. In addition, the small willow stand associated with the seasonal detention pond provides potentially suitable nesting habitat.	

Common and	Status		Habitat	Potential On-Site	
Scientific Name	Federal	State	Requirements	Occurrence	
Birds (continued)	-				
California horned lark Eremophila alpestris actia		CSC	Coastal regions, chiefly from Sonoma County to San Diego County; also found in the San Joaquin Valley and east to the foothills of the Sierra Nevada. Occurs within short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	<i>Potential:</i> This species is known from the project region and has been reported to the CDFG from several locations in the project vicinity, the nearest of which is approximately 1.3 miles north of the project site (CNDDB). On-site grasslands provide potentially suitable habitat.	
Prairie falcon (nesting) Falco mexicanus	BCC	CSC	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, including marshlands and ocean shores.	<i>Potential (but not for nesting):</i> This species, which is known to occur in the project region (CNDDB) may forage on site; however, no suitable nesting habitat is present.	
Bald eagle (nesting and wintering) Haliaeetus leucocephalus		CSC	Ocean shore, lake margins, and rivers for both nesting and wintering. Nests in large, old-growth or dominant live tree with open branches, especially ponderosa pine. Most nests occur within 1 mile of water. Roosts communally in winter.	<i>Not Expected:</i> Suitable nesting and wintering habitat is not present on the project site.	
Loggerhead shrike (nesting) <i>Lanius</i> <i>ludovicianus</i>	BCC	CSC	Nests in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	<i>Potential</i> : This species is known to occur in the region, and a nesting site for this species has been reported to the CDFG from a location approximately 2.7 miles to the north of the project site (CNDDB). On-site grasslands provide foraging habitat, and the stand of willow and cottonwood trees around the detention pond on the project site provide potentially suitable nesting habitat.	

Common and	Status		Habitat	Potential On-Site
Scientific Name	Federal	State	Requirements	Occurrence
Mammals				
Pallid bat Antrozous pallidus		CSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites. Preferred roost sites include rocky outcrops, cliffs, crevices and oak trees, but may also use buildings and bridges as roost sites.	Potential (but not for roosting): This species has been reported to the CDFG from the project vicinity (CNDDB) and may forage over the project site. However, suitable roosting structures do not occur on site, as on-site buildings and structures are utilized on at least a weekly basis, and this species is highly sensitive to human disturbance.
Townsend's big- eared bat <i>Corynorhinus</i> <i>townsendii</i> <i>townsendii</i>		CSC	Inhabits humid coastal regions of northern and central California. Roosts in limestone caves, lava tubes, mines, buildings etc. Will only roost in the open, hanging from walls and ceilings. Roosting sites are limiting.	Potential (but not for roosting): This species has been reported to the CDFG from the project vicinity (CNDDB) and may forage over the project site. However, suitable roosting structures do not occur on site, as on-site buildings and structures are utilized on at least a weekly basis, and this species is highly sensitive to human disturbance.
Berkeley kangaroo rat Dipodomys heermanni berkeleyensis		CNDDB Special Animal	Open grassy hilltops and open spaces in chaparral and blue oak or digger pine woodlands. Requires fine, deep, well-drained soil for burrowing.	<i>Not Expected:</i> The project site does not contain chaparral or woodland habitat and is located outside the species' expected range. The expected range extends through the hills and valleys east of San Francisco Bay, in Alameda and Contra Costa Counties (Wilson and Ruff 1999), specifically, within the Mount Diablo mountain range and adjacent hills (Anthony 2005), which occur to the northwest of the project site.
Western mastiff bat <i>Eumops</i> <i>perotis</i>		CSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Ranges from Monterey Co. southward through southern California, from the coast eastward to the Colorado Desert.	<i>Potential (but not for roosting):</i> This species has been reported to the CDFG from the project region (CNDDB) and may forage over the project site. However, suitable roosting habitat does not occur on site.

Common and	Status		Habitat	Potential On-Site	
Scientific Name	Federal	State	Requirements	Occurrence	
Mammals (continu	ed)				
Fringed myotis Myotis thysanodes		CNDDB Special Animal	Occurs in a wide variety of habitats from desert scrub to fir-pine associations. Oak, pinyon-juniper, valley foothill hardwood, and hardwood-conifer woodlands appear to be the most commonly used vegetative associations. Forms maternity colonies and roosts in caves, mines, buildings, and crevices.	Potential (but not for roosting): This species is known to occur in the project region (Graham 1994) and may forage over the project site. However, suitable roosting habitat does not occur on site.	
San Joaquin pocket mouse <i>Perognathus</i> <i>inornatus</i> <i>inornatus</i>		CNDDB Special Animal	Typically found in grasslands and blue oak savannas. Needs friable soils.	<i>Potential:</i> This species is known from the project area, including from a site located approximately 0.25 mile southeast of the project site (CNDDB). On-site grasslands provide suitable habitat for this species.	
American badger <i>Taxidea taxus</i>		CSC	Most abundant in dry, open stages of most shrub, forest, and herbaceous habitats with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Excavates its own burrows.	Potential: The grassland portion of the site (which contains friable soils) provides suitable habitat for this species. Several large burrows were observed on the project site during the July 11, 2007, site visit by Pacific Biology and the September 11, 2007, site visit by Impact Sciences. In addition, the large ground squirrel population on the project site provides a food source for this species. This species has been documented from multiple (15) locations within the project USGS quadrangle (Midway) and the surrounding eight quadrangles (CNDDB).	

Common and	Sta	tus	Ha	abitat	Potential On-Site
Scientific Name	Federal	State	Requi	irements	Occurrence
Mammals (continu	ed)				
San Joaquin kit fox <i>Vulpes</i> <i>macrotis</i> <i>mutica</i> STATUS KEY:	FE	CT	Inhabits annual g open stages with vegetation. Need sandy soils for bu suitable prey base	grasslands or grassy scattered shrubby s loose-textured irrowing, and a e.	<i>Potential:</i> This species is known to occur throughout the project vicinity and has been reported to CDFG from numerous (44) locations within the project USGS quadrangle (Midway) and the surrounding eight quadrangles (CNDDB). The nearest reported sighting was located approximately 0.3 mile south of the project site. The grasslands on the project site provide suitable denning and foraging habitat. Several large burrows were observed on the project site during the July 11, 2007, site visit by Pacific Biology and the September 11, 2007, site visit by Impact Sciences. In addition, the large ground squirrel population on the project site provides a food source for this species.
Federal			<u>State</u>		
FE: Federally Endangered CT: California Threater		California Threatened			
FT: Federally Threatened		CSC: California Species of Concern		Concern	
BCC: Bird of Con	BCC: Bird of Conservation Concern CFP: California Fully Protected			cted	
Other: CNDDB Special Animal: Species that do not have formal designation by any resource agency, but that are considered sensitive resources by the CDFG due to known declines in population					

The following presents additional information about those "listed" special-status wildlife species that occur or have the potential to occur on the project site. Although the burrowing owl is not a listed special-status wildlife species, it has been directly observed on the site, so is discussed further below.

4.4.1.2.4.2.1 Burrowing owl - California Species of Concern

Burrowing owl was observed on the AMP project site during the field survey conducted by Pacific Biology and Vollmar Consulting on July 11, 2007. A total of eight burrowing owls were observed, including both adult and juvenile owls, indicating that the species successfully nests at the site. In addition, evidence of nesting was observed during the July 11, 2007, at three separate burrows, indicating that at least three nesting pairs inhabit the site. As a focused burrowing owl census was not conducted, and given the size of the site, additional nesting pairs may occur. During the September 11, 2007, site visit conducted by Impact Sciences, old burrowing owl sign (pellets, whitewash, and small mammal bones) was observed at four burrows. The CNDDB contains a record of the species nesting on the project site, as well as numerous other documented occurrences of the species nesting in immediately surrounding areas.

4.4.1.2.4.2.2 San Joaquin kit fox- Federally Endangered; State Threatened

San Joaquin kit fox occurs in a variety of habitat types, including grasslands, which compose the majority (approximately 60 percent) of the project site. The species uses dens for temperature regulation, shelter, reproduction, and escape from predators. Kit fox may dig their own dens, but often modify and use dens constructed by other animals, such as ground squirrel, badger, and coyote. The species will also use human-made structures, such as culverts or abandoned pipe, as dens. Kit fox often change dens, and numerous dens may be used throughout the year. Actively used dens may not always show sign of use.

The project site is located in the northern range of the San Joaquin kit fox. Critical habitat for the species has not been designated by the USFWS. Based on the CNDDB, the closest documented occurrence of San Joaquin kit fox is located approximately 0.3 mile south of the project site. Numerous other documented occurrences of the species occur in the area surrounding the project site, including to the north of the site (CDFG 2007).

The project site contains potential den sites and suitable foraging habitat for San Joaquin kit fox. During the July 11, 2007 site visit conducted by Pacific Biology and Vollmar Consulting, numerous potential dens of adequate size for San Joaquin kit fox (i.e., den entrances of 8 to 10 inches) were observed to occur on the project site. Several of these potential dens are of the characteristic shape (i.e., higher than wide) as those often used by the species. Some of these potential dens appear to have been originally excavated by ground squirrels, but enlarged by a larger mammal. Ground squirrels are abundant on the project site, providing a suitable prey base for the species. Therefore, San Joaquin kit fox has the potential to occur on the project site.

4.4.1.2.4.2.3 California Tiger Salamander – Federal Threatened; California Species of Concern

California tiger salamander occurs in a variety of habitats, including grasslands containing a pond. The species breeds and develops in seasonal pools and ponds, but spends the majority of its post-metamorphic life in upland habitat containing widely dispersed underground retreats, such as small mammal burrows. Following the onset of fall or winter rains, California tiger salamander emerges from upland sites on rainy nights to migrate to breeding ponds. Breeding migrations have been recorded at distances of up to 1.3 miles between upland habitat and breeding ponds (Sweet 1998). The species requires relatively long-lasting pools for completing metamorphosis, and studies have shown that larvae metamorphosed and left the breeding pond 60 to 94 days after the eggs had been laid (Feaver 1971).

The project site is located within the range of the Central Population of California tiger salamander, within the East Bay Region, but is not located within a designated Critical Habitat unit (USFWS 2005a). Based on the CNDDB, the closest documented occurrence of individuals of the species to the project site is located approximately 1.5 miles to the northwest. The on-site seasonal pond provides potentially suitable breeding habitat for California tiger salamander, and the adjacent grasslands contain abundant ground squirrel burrows and provide suitable upland habitat. Given the known occurrences of individuals of the species near the project site, as well as the presence of suitable breeding habitat and upland habitat on the project site, California tiger salamander has the potential to occupy on-site habitat.

4.4.1.2.3.2.4 California Red-Legged Frog – Federal Threatened; California Species of Concern

California red-legged frog breeds in a variety of aquatic habitats, including ponds. Breeding adults are generally associated with deep (greater than 0.7 meters [2 feet]), still, or slow moving water and dense, shrubby riparian or emergent vegetation (Hayes and Jennings 1988). However, the species has been observed in shallow sections of streams and ponds that are devoid of vegetative cover. California red-legged frog breeds in aquatic habitat during the rainy season (generally November through March), and larvae undergo metamorphosis 3.5 to 7 months after hatching (Jennings and Hayes 1990), at which point individuals of the species may move to upland areas. California red-legged frog utilizes non-aquatic habitats for refuge and dispersal. Post-metamorphic sheltering habitat for the species includes potentially all aquatic, riparian, and upland habitats within the range of the species, and includes any landscape features that provide cover, such as existing animal burrows, boulders or rocks, organic debris, and industrial debris (USFWS 2002a). The species has also been documented dispersing through areas with sparse vegetative cover, and dispersal patterns are considered to be dependent on habitat availability and environmental conditions (Scott and Rathbun 1998). In addition, adults of the species can survive in moist upland areas after breeding habitat has dried (USFWS 2006).

The project site is located within the range of the California red-legged frog, but is not located within a designated Critical Habitat unit (USFWS 2006). Based on the CNDDB, the closest documented occurrence of individuals of the species is located approximately 0.4 mile to the north of the project site; the location of this reported sighting appears to have a hydrologic connection to the on-site seasonal pond. In addition, other occurrences of individuals of the species have been reported within 1 mile of the project site (CDFG 2007).

The on-site seasonal pond provides suitable aquatic habitat for California red-legged frog. During summer months when the pond is dry, individuals of the species could shelter within the associated willows, within cracks in the pond bottom, within small mammal burrows in the surrounding grasslands, or could potentially disperse to other, nearby aquatic habitats. Given the known occurrence of individuals of the species near the project site, the presence of suitable aquatic habitat, and the presence of suitable summer/refuge habitat, California red-legged frog has the potential to occur on the project site.

4.4.1.2.4.3 Jurisdictional Wetland and Drainages

Wetlands and permanent and intermittent drainages, creeks, and streams are generally subject to the jurisdiction of the ACOE under Section 404 of the Federal Clean Water Act and to the jurisdiction of the Regional Water Quality Control Board (RWQCB) under the Porter Cologne Act. Streambeds and other aquatic resources are also potentially subject to regulation by the CDFG under Section 1602 of the California Fish and Game Code. Please see heading **4.4.2, Regulatory Environment**, for a more detailed definition of the jurisdiction of the ACOE, RWQCB, and CDFG.

A formal jurisdictional wetland delineation has not been conducted on the project site. However, potential wetlands and waters of the US were identified during field surveys at the project site. The seasonal pond and associated swale contained some wetland-associated vegetation and could be considered wetlands and/or other waters of the US, in which case these areas would fall under ACOE jurisdiction. The location of these features is shown on **Figure 4.4-1**. The pond drains to the north into a culvert under I-205. Should the pond have a hydrologic connection to Waters of the US, the pond and associated swale would likely be jurisdictional under Section 404 of the Clean Water Act. The seasonal pond and associated cottonwood and willows may fall under the jurisdiction of the CDFG, which asserts jurisdiction to the edge of any riparian-associated vegetation. Therefore, if impacts were to occur within the bed and bank of on-site waters or to on-site riparian vegetation, permits would potentially be required from the appropriate agencies, including the ACOE (and as a result the RWQCB) and the CDFG. No additional wetlands, vernal pools, or jurisdictional features were identified with the Specific Plan Area.

4.4.1.2.4.4 Sensitive and Riparian Plant Communities

The CDFG Wildlife and Habitat Data Analysis Branch have developed a plant communities list derived from the CNDDB and titled *List of California Terrestrial Natural Communities* (CDFG 2003). It is based on the detailed classification put forth in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). It is also structured to be compatible with previous plant communities lists (e.g., Holland 1986). The primary purpose of the CNDDB classification is to assist in the characterization and identification of rarity of various vegetation types. For the purposes of this analysis, plant communities denoted on the list as "high priority for inventory in CNDDB" in the 2003 version of the list are considered to be "sensitive."

None of the plant communities on the project site are considered to be a "high priority for inventory in CNDDB." The on-site willow and cattail plant community found in the seasonal detention pond is too small and disturbed to fall under the category of either southern willow scrub (which is considered a sensitive

plant community in the *List of California Terrestrial Natural Communities*) or cattail wetland (which, when in brackish water, is considered sensitive). The stand on the project site does not contain the typical vegetation characteristics or perform the functions typically associated with either southern willow scrub or cattail wetland plant communities. Therefore, the on-site willow and cattail vegetation has been characterized as a disturbed willow-cattail stand, and it is not considered a sensitive vegetation community, pursuant to the *List of California Terrestrial Natural Communities*. However, the willow and cattail vegetation is associated with the seasonal detention pond, and is therefore considered a riparian plant community, which is considered sensitive by the CDFG.

4.4.1.2.4.5 Wildlife Movement Corridors

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or human induced factors, such as urbanization, providing for movement of animals between surrounding lands (Forman and Godron 1986). The project site provides for local wildlife movement on the site and nearby properties. The site is partially developed with the raceway and associated facilities, which makes up approximately 37 percent of the property. The remaining approximately 63 percent of the property is composed of undeveloped open space, which provides opportunity for animal movement. Human presence and activity on the site, including parking in some undeveloped areas, as well as night-time lighting, does impact open space portions of the project site, likely decreasing the value of the property as a wildlife movement area. The site is currently used for events associated with the raceway up to seven days a week, which would tend to diminish the site's use as a wildlife movement corridor due to heavy human activity that would frighten away wildlife species.

Wildlife movement corridors are considered especially valuable when they provide regional movement opportunities for wildlife species. The project site is located in an area characterized by sparse, scattered development and large expanses of open space. It is connected with properties to the west and south that contain scattered tracts of open space, which allows wildlife movement between the project site and land in those directions. The presence of I-205 and I-580, located to the north and east of the project site, creates a barrier to wildlife movement in those directions. However, culverts running under I-205 and I-580 provide wildlife access underneath the roadways. In addition, traffic levels on those roadways are lighter at night, when most wildlife movement occurs. Therefore, the project site is likely to provide some regional wildlife movement opportunities, especially for smaller animals that can easily fit through the culverts under the freeways.

Significant regional wildlife movement corridors typically occur where wildlife is restricted from adjacent areas, resulting in a situation where the corridor provides the only real connectivity between two patches of

open space, and where the corridor allows passage between large areas of land. Such a situation does not occur on the project site, where land in the areas nearby the site contain large expanses of open space. Nearby areas do not exclude animal life or force animal movement onto the project site. Additionally, there are no regional or migratory wildlife corridors that have been identified by Alameda County or state resource agencies as occurring on the project site. Consequently, the project site is not considered to be part of an established or significant regional wildlife movement corridor.

4.4.2 REGULATORY ENVIRONMENT

The following policies and regulations potentially apply to the biological resources associated with the project site. Impacts that would conflict with these policies and regulations would conflict with state or federal law and/or could be considered significant under CEQA.

4.4.2.1 Federal

4.4.2.1.1 Federal Endangered Species Act

Section 9 of the ESA prohibits the "take" of federally listed Threatened and Endangered species. The ESA defines "take" as any action that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any Threatened or Endangered species. If it is determined that a project may result in the "take" of a federally listed species, an Incidental Take Permit from the USFWS would be required under Section 7 or Section 10 of the federal Endangered Species Act. Section 7 applies if there is a federal nexus (e.g., the project is on federal land, the lead agency is a federal entity, a permit is required from a federal agency, or federal funds are being used). Section 10 applies if there is no federal nexus. Under Section 10(a)(1)(B), a Habitat Conservation Plan (HCP) must accompany the Incidental Take Permit application.

4.4.2.1.2 Federal Clean Water Act

Wetlands and permanent and intermittent drainages, creeks, and streams are generally subject to jurisdiction of the ACOE under Section 404 of the Federal Clean Water Act. The ACOE has jurisdiction up to the "ordinary high water mark" of rivers, creeks, and streams that are considered "waters of the US" as defined by the Clean Water Act. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by ACOE as "those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (ACOE 1987). The presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The ACOE definition of wetlands requires that all three wetland identification parameters be met. Any deposit of fill into "waters of the US," including

wetlands, requires the acquisition of a permit from the ACOE pursuant to Section 404 of the Federal Clean Water Act.

4.4.2.1.3 Migratory Bird Treaty Act

The proposed project would also be subject to the requirements of the Migratory Bird Treaty Act (MBTA). This regulation protects all migratory birds and their nests and makes it unlawful to "take" (e.g., pursue, kill, harm, harass) any migratory bird and their active nests.

4.4.2.2 State

4.4.2.2.1 California Endangered Species Act

Section 2080 of the CESA prohibits the "take" of state-listed Threatened and Endangered species. The CESA defines "take" as any action that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any Threatened or Endangered species. If a proposed project may result in "take" of a listed species, a permit pursuant to Section 2080 of CESA is required from the CDFG.

4.4.2.2.2 California Fish and Game Code (Sections 3503 and 3513)

The proposed project would also be subject to the requirements of Sections 3503 and 3513 of the California Fish and Game Code. These regulations protect all native birds and their nests and make it unlawful to "take" (e.g., pursue, kill, harm, harass) any migratory bird and their active nests.

4.4.2.2.3 California Fish and Game Code (Sections 1602)

Streambeds are potentially subject to regulation by the CDFG under Section 1602 of the CDFG Code. A stream is defined under this statute as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFG generally asserts its jurisdiction to the edge of the riparian vegetation canopy associated with any stream. Any work within a streambed or the removal of associated riparian vegetation requires the acquisition of a Streambed Alteration Agreement from the CDFG.

4.4.2.3 County

4.4.2.3.1 Alameda County East County Area Plan

The Alameda County East County Area Plan (ECAP), which is the governing general plan for the project area, contains goals, policies, and implementation programs that are intended to provide for the protection

and preservation of natural resources in eastern Alameda County. The primary goal for biological resources protection in the eastern portion of Alameda County, as described by the ECAP, is "to preserve a variety of plant communities and wildlife habitat." Several policies are identified in the plan to achieve this goal:

Policy 122: The County shall encourage that wetland mitigation be consolidated in areas that are relatively large and adjacent to or otherwise connected to open space. To the extent possible, these areas should be included in, adjacent to, or linked through open space corridors with lands designated as "Resource Management" that are managed specifically for the preservation and enhancement of biological resources.

Policy 123: Where site-specific impacts on a biological resource resulting from a proposed land use outside the Urban Growth Boundary are identified, the County shall encourage that mitigation is complementary to the goals and objectives of the ECAP. To that end, the County shall recommend that mitigation efforts occur in areas designated as "Resource Management" or on lands adjacent to or otherwise contiguous with these lands in order to establish a continuous open space system in East County and to provide for long term protection of biological resources.

Policy 125: The County shall encourage preservation of areas known to support special-status species.

Policy 126: The County shall encourage no net loss of riparian and seasonal wetlands.

4.4.3 ENVIRONMENTAL ANALYSIS

4.4.3.1 Thresholds of Significance

Criteria used to evaluate the significance of project impacts to biological resources are derived from the legal requirements to protect sensitive species and sensitive habitats, the *State CEQA Guidelines* (State of California 1970). The following thresholds for determining the significance of impacts related to biological resources are contained in the environmental checklist form contained in Appendix G of the most recent update of the *State CEQA Guidelines*, or in Section 15065(a), Mandatory Findings of Significance, of the *State CEQA Guidelines*.

The proposed project would result in a significant impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG and Game or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP.
- Substantially reduce the habitat of a fish or wildlife species.
- Cause a fish or wildlife population to drop below self-sustaining levels.
- Threaten to eliminate a plant or animal community.
- Reduce the number or restrict the range of a rare or endangered plant or animal.

Direct impacts typically represent the physical alteration (i.e., loss of individuals or habitat degradation) of biological conditions that occur on a project site as a result of project implementation. Indirect impacts are those reasonably foreseeable effects on remaining or adjacent biological resources that are caused by the project subsequent to project implementation.

The physical alteration of habitat is not in itself a "significant" impact under CEQA. Significance is measured when the physical alteration of habitat is compared against each of the significance threshold criteria defined above. For example, should the alteration of habitat result in the direct or indirect loss of, or an otherwise substantial adverse effect on, a species identified as a "candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFG or USFWS," impacts would be considered significant, assuming appropriate compensatory or other mitigation is not available or feasible.

An evaluation of whether an impact on biological resources would be "substantial," and therefore a significant impact, must consider both the resource itself and the significance threshold criteria being evaluated. For example, because of the dependence of most plant and animal species on native habitats to satisfy various life cycle requirements, a habitat-based approach that addresses the overall biological value of a particular vegetation community or habitat area is appropriate when determining whether or not alteration of that habitat will "substantially" affect special-status species, sensitive habitats, wetlands, or movement corridors. The relative biological value of a particular habitat area – its functions and values – can be determined by such factors as disturbance history, biological diversity, its importance to particular

plant and wildlife species, its uniqueness or sensitivity status, the surrounding environment, and the presence or absence of special-status resources.

However, direct impacts with respect to specific plant and wildlife resources, such as active nests and individual plants and animals, are also evaluated and discussed when impacts on those resources, in and of themselves, could be considered significant or conflict with local, state, and federal statutes or regulations. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and from a regional perspective, and the sensitivity status if the species is considered of special status by resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions.

4.4.3.2 Methodology

To evaluate the biological resources found or potentially occurring on the approximately 80-acre project site, literature and database reviews were performed by Impact Sciences. Impact Sciences and independent biologists conducted field studies on the project site. A description of the literature and database review, as well as the field studies that were conducted, is provided below.

4.4.3.2.1 Literature Review

The following biological studies, previously prepared for the AMP project site and project sites in the vicinity, were reviewed:

- AMP Biological Evaluation Report, prepared by Pacific Biology, August 3, 2007
- AMP California Tiger Salamander Site Assessment Report, prepared by Pacific Biology, September 25, 2007
- AMP California Red-Legged Frog Site Assessment Report, prepared by Pacific Biology, September 26, 2007
- AMP San Joaquin Kit Fox Early Evaluation Report, prepared by Pacific Biology, October 2, 2007

As appropriate, information from the above biological studies, which are attached in **Appendix 4.4** to this Draft EIR, has been incorporated into this section. Additional literature sources specific to descriptions of the common plants and animals, plant communities, and special-status species occurring in the project area were also reviewed (see **Section 10.0, References**).

4.4 Biological Resources

4.4.3.2.2 Database Review

The most recent versions of the CNDDB (CDFG 2007a) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2007) were reviewed for the USGS 7.5-minute quadrangle on which the AMP site is located, the Midway quadrangle, and the surrounding eight quadrangles: Byron Hot Springs, Clifton Court Forebay, Union Island, Tracy, Lone Tree Creek, Cedar Mountain, Mendenhall Springs, and Altamont.

4.4.3.2.3 Field Investigations

Reconnaissance-level field surveys were conducted on the AMP project site to characterize the existing conditions of the site and to determine if special-status and wildlife species have the potential to occur. Reconnaissance-level field surveys were carried out by Impact Sciences and by independent biologists, including those from Pacific Biology. A Pacific Biology biologist and a Vollmar Consulting biologist conducted a reconnaissance-level field survey on July 11, 2007. The purpose of the survey was to identify and characterize on-site biological resources and evaluate the potential of the project site to support sensitive biological resources, including special-status plant or wildlife species. An Impact Sciences biologist conducted a reconnaissance-level survey on September 11, 2007. The intent of the survey was to confirm the description of biological resources as described in previous biological documentation and to evaluate the need to conduct additional biological surveys, if any.

4.4.3.3 Impacts and Mitigation Measures

Potential Impact 4.4-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS?

4.4.3.4 Proposed Habitat Modifications

Implementation of the proposed project would result in removal of grassland associated with installation of two caretaker residences and the installation of freeway signage. The two caretaker residences would be installed along the site's western property boundary, and would have a maximum size of 2,800 square feet each. The impact area associated with installation of the two caretaker residences would be up to 5,600 square feet, plus grading associated with the construction for a total of about 0.2 acres. The impact area associated with installation of the group signs would be approximately 2,000 square feet. In addition, the proposed project could result in the increased intensity of approximately 25 acres of on-site grasslands for parking, as well as use of the parking area for overnight parking of recreational vehicles (RVs), which would allow visitors at the AMP to spend the night on site. Finally, the proposed project would allow

incrementally more intensive use of the site (i.e., increased attendance), resulting in incrementally increased indirect impacts (noise and lighting impacts) to grassland areas and the wildlife species associated with this habitat since the number of vehicles and visitors will be greater than the current usage.

4.4.3.5 Potential Impacts to Special-Status Plant Species

Based upon documented occurrences near the site and the presence of suitable habitat on the site, eight special-status plant species have the potential to occur on site. These include four CNPS List 1B.1 plant species, big tarplant, round-leaved filaree, diamond-petaled California poppy, and showy madia; three CNPS List 1B.2 plant species, bent-flowered fiddleneck, Lemmon's jewelflower, and Diablo helianthella; and one CNPS List 2.2 plant species, rayless ragwort. The eight special-status plant species with the potential to occur on site would be found in on-site grasslands. Installation of the two caretaker residences and freeway signage, increased parking intensity, and increased AMP usage would disturb ground area where there is a potential for the latter special-status plants to occur. Therefore, if individuals of these species do occur on site, impacts to grasslands associated with the proposed installation of two caretaker residences, installation of freeway signage, increased parking intensity, and increased AMP usage could result in impacts to these species. This would be a potentially significant impact for the loss of special-status plant species.

4.4.3.6 Potential Impacts to Special-Status Wildlife Species

4.4.3.6.1 Species that Occur on the Site Temporarily

Nine of the special-status wildlife species that have the potential to occur on site are considered to be special-status only during specific phases of their lifecycle. For example, several bird species are considered special-status only during their nesting phase. For some of these species, individuals may utilize the project site for some activities (such as foraging), but the sensitive portion of their lifecycle would not be expected to take place on the project site. This is the case for the following special-status wildlife species, which may utilize the project site for foraging activities, but would not be expected to nest, roost, or winter on the site: Cooper's hawk, golden eagle, northern harrier, prairie falcon, pallid bat, Townsend's big-eared bat, western mastiff bat, and fringed myotis. The high mobility of these species makes it unlikely that they would be directly impacted by project activities. In addition, the widespread nature of these special-status wildlife species, as well as the abundance of similar foraging habitat in the vicinity of the project site, makes it unlikely that implementation of the proposed project would have a significant indirect impact on these species. Therefore, these wildlife species are not further discussed in this document.

Swainson's hawk, a wildlife species that is California listed as Threatened and considered a BCC, is also likely to utilize the project site only for foraging. The project site is not suitable for nesting. However,

because of the rarity of this hawk species, the CDFG has determined that Swainson's hawk foraging habitat within a 10-mile radius of an active nest (i.e., a nest used during one or more of the last five years) should be protected (CDFG 1994). Based on a review of the CNDDB, the closest documented "active" Swainson's hawk nest (documented in 2003) is located 2.7 miles northeast of the project site. Implementation of the proposed project would result in the loss of grassland (as discussed below), which provides foraging habitat for Swainson's hawk. This would be a potentially significant impact.

4.4.3.6.2 Species with Potential to Highly Utilize the Site

As discussed in **Table 4.4-2**, the following 13 special-status wildlife are known to occur on the site or have the potential to highly utilize the project site:

- The burrowing owl (*Athene cunicularia*), CSC and BCC, has been observed on the site and is known to actively use the site for nesting.
- The federally-listed as Endangered and California-listed as Threatened San Joaquin kit fox (*Vulpes macrotis mutica*);
- Two species federally listed as Threatened and considered CSC, California tiger salamander (*Ambystoma californiense*) and California red-legged frog (*Rana aurora draytonii*);
- Three bird species considered CSC and BCC, ferruginous hawk (*Buteo regalis*), California horned lark (*Eremophila alpestris actia*), and loggerhead shrike (*Lanius ludovicianus*);
- Four species considered CSC, San Joaquin whipsnake (*Masticophis flagellum ruddocki*), coast (California) horned lizard (*Phrynosoma coronatum (frontale* population)), western spadefoot toad (*Spea (=Scaphiopus) hammondii*), and American badger (*Taxidea taxus*);
- One CFP species, white-tailed kite (*Elanus leucurus*); and
- One CNDDB Special Animal, San Joaquin pocket mouse (*Perognathus inornatus inornatus*).

One special-status wildlife species, burrowing owl, a CSC and a BCC, is known to occur on site. In addition, 12 special-status wildlife species have the potential to occur on site. These include three "listed" species: the federally listed as Endangered and California listed as Threatened San Joaquin kit fox, and two species that are federally listed as Threatened and considered CSC, the California tiger salamander and the California red-legged frog. Three bird species that are considered CSC and BCC have the potential to occur on site: ferruginous hawk, California horned lark, and loggerhead shrike. Four wildlife species that are considered CSC have the potential to occur: San Joaquin whipsnake, Coast horned lizard, western spadefoot toad, and American badger. One species that is considered to be CFP, the white-tailed kite, and one species that is considered to be a CNDDB Special Animal, the San Joaquin pocket mouse, also have the potential to occur on site.

4.4.3.6.3 Impacts to Special-Status Wildlife Species in Grassland

Several of the special-status wildlife species with the potential to occur on the project site would be found in grassland habitat. On-site grasslands are known to provide habitat for burrowing owl, and active burrowing owl burrows have been observed in this habitat type. In addition, on-site grasslands provide potentially suitable habitat for San Joaquin kit fox, California tiger salamander (during the aestivating stage of its life cycle), California red-legged frog (during the adult stages of its life cycle), California horned lark (including while nesting), loggerhead shrike (including while nesting), San Joaquin whipsnake, Coast horned lizard, western spadefoot toad, and San Joaquin pocket mouse. Ferruginous hawk could also utilize on-site grasslands, and/or could occur on lighting structures within the grasslands, while roosting.

Construction related to installation of the two caretaker residences and freeway signage could impact grassland and result in direct impacts to burrowing owl. If the other special-status species with the potential to occur on site are found there, construction-related activities could result in the direct loss of individuals of those species as well. This includes potential loss of an occupied San Joaquin kit fox den and associated animals and/or the loss of kit fox habitat, as well as the potential loss of California tiger salamander or California red-legged frog individuals occupying upland habitat. Direct impacts could also result from more frequent use of the full 40-acre parking area which would increase the chances that special-status wildlife species, such as burrowing owls and individuals of other species with the potential to occur within on-site grasslands, could be struck by vehicles. In addition, the chance of a vehicle parking over an active burrow of a burrowing owl or the active den of a kit fox, thus disrupting the feeding or care for young, would be increased. The loss of individuals of the burrowing owl, San Joaquin kit fox, California tiger salamander and California red-legged frog would be a potentially significant impact.

Indirect impacts to burrowing owl and to individuals of those special-status species with the potential to occur within on-site grasslands would likely result from more frequent use of on-site lighting, more frequent generation of noise from racing activities, and from more frequent and intensified human presence associated with the proposed project. Lighting and noise are shown to be disruptive to wildlife behavior in several ways. Nighttime light can disturb breeding and foraging behavior and can alter breeding cycles of birds, mammals, reptiles, amphibians, and nocturnal invertebrates. For example, most terrestrial mammals that move at night will avoid areas with artificial lighting (Rich and Longcore 2006). Noise and human presence can scare away animals that may not be directly impacted by project activities, but that want to avoid interaction with humans. Currently, lighting, noise, and human presence associated with AMP events affect grasslands adjacent to the park approximately up to seven nights a week. With a projected increase in spectator attendance, special-status wildlife species located in grasslands adjacent to the raceway would receive an incremental increased span of disruption, with only rare occurrences each week of a day/night without lighting, noise, and human presence. Specifically, due to the high mobility of the species, San

Joaquin kit fox individuals could be expected to move onto the northeastern portion of the project site because it contains burrows that appear most suitable for kit fox dens. Implementation of the proposed project could increase the disturbance to individuals in these dens.

The increase in disruption to the activities of burrowing owl and the other special-status wildlife species with the potential to occur on the project site (including San Joaquin kit fox, California tiger salamander, California red-legged frog, California horned lark, loggerhead shrike, San Joaquin whipsnake, Coast horned lizard, western spadefoot toad, San Joaquin pocket mouse and ferruginous hawk) would be a potentially significant impact.

Trees and grassland on the project site provide suitable nesting habitat for a variety of bird species. Therefore, in addition to the above special-status wildlife species, project implementation could result in impacts to common nesting birds, which are regulated under the Fish and Game Code of California and the MBTA. Disturbance associated with implementation of the proposed project could result in nest abandonment for bird species, which would be a potentially significant impact.

4.4.3.6.4 Impacts to Special-Status Wildlife Species in Willow-Cattail Stand and Detention Pond

Implementation of the proposed project would not result in the removal or direct impacts to the approximately 0.2 acre on-site willow-cattail stand or the 0.3 acre detention pond and swale, as these areas are not part of the proposed project's impact area. However, implementation of the project would result in the indirect impacts from incremental increases in lighting, noise, and human presence on the willow-cattail stand and detention pond. This plant community and pond provide potentially suitable habitat for California tiger salamander (during the breeding stage of its life cycle) and California red-legged frog. The willow and cottonwood trees could also be utilized by white-tailed kite as nesting habitat.

The incremental increase in indirect impacts to the willow-cattail stand and the seasonal detention pond could affect those species with the potential to occur in this habitat. As described above, light, noise, and human presence are known to have a negative effect on the breeding and foraging behavior of a variety of species. If California tiger salamander, California red-legged frog, or western spadefoot toad occur on site, they would be likely to spend at least part of their life cycle in the seasonal detention pond and willow-cattail stand. If these species were to occur in this area, the incremental increase in indirect effects of AMP could disrupt foraging or breeding of these species. In addition, the incremental increased number of vehicles on the project site could result in decreased water quality in the seasonal detention pond. Because amphibians have moist, absorbent skin (CDFG 2007b), a high level of pollutants entering the detention pond could negatively impact California tiger salamander, California red-legged frog, and western spadefoot toad individuals, if they occur there. Additionally, if white-tailed kite were to utilize the willow and cottonwood

trees growing at the detention pond edge for nesting, the incremental increase in light, noise, and human presence could disrupt nesting activities. Species utilizing the detention pond and associated vegetation could be especially exposed to human disturbances resulting from the siting of overnight RV parking adjacent to the pond to the west. This incremental increase in disruption to the activities of special-status species with the potential to occur in the willow-cattail stand and the seasonal detention pond (including California tiger salamander, California red-legged frog, western spadefoot, white-tailed kite) would be a potentially significant impact.

Conclusion: Potentially significant

4.4.3.6.5 Habitat Modifications Mitigation Measure

BIO-1: The project applicant shall commission the preparation of a Habitat Management Plan (HMP) designed to maintain the current level of special-status species use of the project site. The HMP shall be completed and implemented prior to implementing any increase in site activity or construction of the caretaker residences or freeway signage. The HMP shall be prepared by a qualified biologist (with selection to be reviewed and approved by the Alameda County Planning Department (ACPD)).

The HMP shall include baseline surveys to determine the full extent of existing use, if any, of special status plants and animals, including but not limited to the following: Swainson's hawk foraging habitat, ferruginous hawk, burrowing owls, San Joaquin kit fox, California tiger salamander, California red-legged frog, California horned lark, loggerhead shrike, white-tailed kite, Joaquin whipsnake, coast horned lizard, western spadefoot toad, American badger, and San Joaquin pocket mouse. The HMP shall incorporate management of the same species listed above.

The HMP shall indicate the methods and funding available to implement **Mitigation Measures BIO-2** to **BIO-13** and shall detail procedures to guide the land uses authorized at the AMP site. The HMP will recognize current ongoing and decades past land uses and will provide safeguards for avoiding impacts to sensitive-species documented as occurring on site (and in the future). This HMP may be development in conjunction with any Section 10 consultation with USFWS that may be required under the federal ESA.

The HMP shall be completed prior to construction of the caretaker residences and signs.

4.4.3.6.6 Special-Status Plant Species Mitigation Measure

BIO-2: Prior to implementing any increase in site activity or construction of the caretaker residences or freeway signage, the project applicant shall retain a qualified botanist (with selection to be reviewed and approved by the ACPD) to conduct special-status plant species presence/absence surveys within areas proposed for grading or modification. The survey shall be conducted by a qualified botanist, at the appropriate time of year to ensure that all special-status plants with the potential to occur on site are evident and identifiable. Surveys shall be conducted pursuant to guidelines provided by the CNPS (2001), CDFG (2000), and the USFWS (1996). Survey results shall be submitted to the ACPD.

If any sensitive plant species are observed during the presence/absence surveys, and it is determined that such plants would be impacted by project activities, the ACPD, the CDFG, and the USFWS (if the species is on the federal list of sensitive species) should be consulted to determine appropriate measures to ensure the protection of the species and its habitat. Such mitigation should include avoidance or, if avoidance is not possible, relocation of affected plants to a mitigation site located in similar habitat within the project site, in an area where no impacts are expected to occur. The relocation site should be in an area that is protected from impacts through human disturbance by fencing.

4.4.3.6.7 Swainson's Hawk Mitigation Measure

BIO-3: The project applicant shall provide for the on-site protection of suitable Swainson's hawk foraging habitat through use of fee title or conservation easement. A qualified biologist shall determine the area of habitat to be preserved. Mitigation shall provide for the maintenance of any current usage of the project site. The fee title or conservation easement shall be in place prior to implementing any increase in site activity or construction of the caretaker residences or freeway signage.

4.4.3.6.8 Burrowing Owl Mitigation Measure

BIO-4: A qualified biologist retained by the project applicant (with selection to be reviewed and approved by the ACPD) shall conduct an assessment of the wintering population of burrowing owls. Winter surveys shall be conducted before the period when wintering owls are most likely to be present (between October 1 and January 31) as well as during the nesting season (generally between February 1 to August 31). All owl sightings, occupied burrows, and burrows with owl sign shall be counted and mapped to determine the wintering or breeding owl population. The surveys shall be conducted pursuant to the

CDFG burrowing owl survey protocol and mitigation guidelines (CDFG 1993). Surveys shall be conducted prior to construction of mobile homes and signage.

If ground disturbing activities associated with mobile home and signage installation are planned to commence during the burrowing owl breeding season (February 1 – August 31), and nesting burrowing owl burrows are found in project impact areas or within 500 feet, ground disturbing activities within 500 feet shall be delayed until the burrow is vacated, juveniles have fledged, and it is determined by the biologist that there is no evidence of a second attempt at nesting. Limits of ground disturbing activities to avoid the active nest shall be established in the field with flagging/stakes, construction fencing, or other appropriate barriers. Personnel working on installation of the caretaker residences and signage shall be instructed on the sensitivity of the nest area. A biological monitor shall serve as construction monitor during those periods that construction activities would occur near active nest areas, to ensure that no inadvertent impacts on these nests occur. The applicant shall record the results of the protective measures taken, to document compliance with applicable state and federal laws pertaining to the protection of native birds. Documentation of compliance shall be submitted to the ACPD.

If ground disturbing activities associated with mobile home and signage installation are planned to commence during the non-breeding season for burrowing owl (September 1 - January 31), and non-breeding, active burrowing owl burrows are found in project impact areas or within 500 feet of the site, ground disturbing activities within 160 feet of occupied burrows shall be delayed until the burrow is vacated. The burrow may be vacated through evacuation of owls from the active burrow by a qualified biologist (with selection to be reviewed and approved by the ACPD), using evacuation and burrow closure procedures approved by the CDFG (CDFG 1995). Specifically, exclusion devices, utilizing on-way doors, shall be installed in the entrances of active burrows. The devices shall be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows shall then be excavated by hand and refilled to prevent reoccupation. Exclusion shall continue until the owls have been successfully excluded from impacted burrows, as determined by a qualified biologist. The management plan will determine the extent of any project site fencing of the 45-acre parking area.

4.4.3.6.9 San Joaquin Kit Fox Mitigation Measure

BIO-5: San Joaquin kit fox site protocol surveys shall be conducted, if concluded to be necessary by the USFWS, between May 1 and November 1, and must include 10 nights of spotlight

surveys and the use of scent stations in accordance with the USFWS San Joaquin Kit Fox Protocol for the Northern Ranch (USFWS 1999). Surveys shall be conducted prior to construction of mobile homes and signage.

If the USFWS protocol surveys determine that San Joaquin kit fox does occupy the project site and potential den sites occur within project impact areas or within the vicinity (200 feet) of ground disturbing activities, to avoid the direct loss of any individuals of the species, pre-ground disturbance clearance surveys shall be conducted during mobile home and sign installation. Pre-ground disturbance surveys shall be conducted by a qualified biologist (approved by the ACPD) and shall take place no less than 14 days and no more than 30 days prior to any ground disturbing activities. If an active kit fox den is detected in or within 200 feet of the proposed work area, the USFWS and the CDFG shall be contacted immediately. If kit fox is observed utilizing areas to be disturbed through mobile home or sign installation for breeding and denning with young, all ground disturbing work within 200 feet of the active burrow(s) shall be temporarily postponed until direction from the USFWS and the CDFG provides guidance regarding how to proceed. If non-breeding kit fox dens occur within ground disturbance zones, the following measures (from the USFWS Sacramento office Procedures for Protecting San Joaquin Kit Fox Before or During Ground Disturbance) shall be taken to safely exclude individuals from the mobile home and sign installation work area:

Through the exclusion of San Joaquin kit fox individuals from impact areas associated with mobile home and sign installation, direct impacts associated with this portion of project activities could be avoided. Due to their high mobility of the species, individuals could be expected to move onto the project site, which is currently the portion of the site that receives the least frequent human disturbance and is likely to remain so after proposed project implementation. The northeastern portion of the site contains burrows that appear most suitable for kit fox dens, making it the likely portion of the site to leave relatively undisturbed for possible kit fox usage.

To avoid impacts to kit fox associated with intensified usage of the northwestern portion of the project site for parking, the project applicant shall develop and implement a management plan that includes kit fox. The management plan shall include, but not be limited to, the following measures:

• Vehicles entering the project site for AMP events should observe a 20 mph speed limit.

- Stored materials (car parts, pipes, etc.) on the project site should be inspected before they are moved, and if kit fox are found inside, materials can be moved to permit escape once the USFWS has been contacted and the contact biologist is supervising.
- No firearms allowed on site.
- Rodenticides and pesticides shall be restricted as much as possible and used as directed, and zine phosphide shall be used for rodent control, if needed.
- An employee education program for all AMP employees should be provided by a qualified biologist, covering: a description of kit fox and its habitat, occurrence in the area, status and protection under the ESA, measures to reduce impacts during usage of the project site for AMP, and a fact sheet with this information for distribution to those working on the AMP project site.

4.4.3.6.10 California Tiger Salamander Mitigation Measure

BIO-6: California Tiger Salamander protocol surveys shall be conducted, if concluded to be necessary by the USFWS, to determine presence/absence of the species on site. Surveys will follow the USFWS guidance ("Interim Guidance on Site Assessments and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander," USFWS 2003) requiring that two breeding season aquatic larval sampling surveys be conducted, with an intervening winter survey of upland habitat conducted through a drift fence study. Surveys shall be conducted prior to construction of mobile homes and signage. Results of the survey shall be submitted to the USFWS and Alameda County.

If the species is found to be present on the site, impacts associated with mobile home and sign installation to individuals of the species that may occupy upland and grassland habitat for the aestivation portion of its lifecycle shall be minimized and mitigated by erecting temporary silt fencing with the bottom edge buried into the ground, or fencing with comparable exclusion properties, around work areas. Prior to ground-disturbing activities, during the species active/breeding season (starting October 15 or when rain occurs), surveys shall be conducted by a qualified biologist. If any individuals are observed during surveys, the USFWS, the CDFG, and the Alameda County shall be notified. A qualified biologist (approved by the USFWS and CDFG) shall relocate California tiger salamander individuals from within work areas to the on-site detention pond.

The implementation of a management plan that includes California tiger salamander shall include annual surveys for the species within any exclusionary fenced area within the 45-acre parking area during the beginning of the breeding season.

Instead of conducting the two-year protocol survey, and with the approval of the USFWS, the presence of California tiger salamander on the project site shall be assumed. This assumes that the species breeds in the seasonal pond on the project site when water is present, and that it occupies all surrounding grassland area as upland habitat during the post-metamorphic stages of its lifecycle. Assuming this, and that surveys conducted determined the species to be present, compensatory lands would be purchased at a minimum of a 3:1 basis (or at a ratio determined to be suitable by the USFWS), in order to mitigate for the loss of a portion of the on-site grassland habitat through project activities. This mitigation could be achieved through the purchase of credits at a USFWS-approved mitigation bank, or through the placement of a conservation easement over occupied California tiger salamander habitat. The Natural Resources Conservation District, through the Alameda County Conservation Partnership, provides opportunities for in-lieu fee payments to fund restoration/preservation of California tiger salamander habitat in Alameda County.

4.4.3.6.11 California Red-Legged Frog Mitigation Measure

BIO-7: California Red-Legged Frog protocol surveys shall be conducted, if concluded to be necessary by the USFWS, to determine presence/absence of the species, in accordance with the USFWS guidance (USFWS Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog, USFWS 2005b). USFWS guidance requires that up to eight individual surveys be conducted within potential habitat, including six surveys within the breeding season (October 1 – June 30) and two surveys during the non-breeding season (July 1 – September 30). California Red-Legged Frog protocol surveys shall be completed prior to construction of mobile homes and signage.

If the species is found through surveys to be present on the site, impacts associated with mobile home and sign installation to individuals of the species that may occupy upland and grassland habitat for a portion of its lifecycle shall be minimized and mitigated by erecting temporary silt fencing with the bottom edge buried into the ground, or fencing with comparable exclusion properties, around work areas. Prior to ground-disturbing activities, during the species active/breeding season (October 1 – June 30), surveys shall be conducted by a qualified biologist. If any individuals are observed during surveys, the USFWS, the CDFG, and Alameda County shall be notified. A qualified biologist (approved by the USFWS and CDFG) shall relocate California red-legged frog individuals from within work areas to the on-site detention pond.

If the California red-legged frog is found to occur on the project site, a management plan shall be developed and implemented and shall include annual surveys for California redlegged frog within any exclusionary fencing of the parking area during the beginning of the breeding season and the beginning of the non-breeding season.

4.4.3.6.12 Special-Status Bird Species Mitigation Measure

BIO-8: To avoid impacts to those special-status bird species with the potential to nest on the project site, which include California horned lark, loggerhead shrike, and white-tailed kite, the project applicant shall retain a biologist who will include a reconnaissance for these special-status species in the general nesting bird surveys, described below in **Mitigation Measure BIO-14**.

4.4.3.6.13 San Joaquin Whipsnake and Coast Horned Lizard Mitigation Measure

BIO-9: San Joaquin whipsnake and coast horned lizard shall be excluded from construction areas using temporary fencing (designed to prevent entry of San Joaquin whipsnake and coast horned lizard) installed around the perimeter of all areas proposed for construction. Silt fencing with the bottom edge buried into the ground or a fence providing comparable exclusion properties, shall be erected. Once temporary fencing is installed, a qualified biologist shall conduct a pre-ground disturbing activities survey to locate any San Joaquin whipsnake or coast horned lizard individuals within the enclosed area. Capture and translocation of any such animals shall be relocated to suitable habitat on the project site, in an area that will not be impacted by project activities. Construction of temporary fencing and capture and translocation of any animals shall be conducted prior to construction activities associated with the caretaker residences and signs.

4.4.3.6.14 Western Spadefoot Toad Mitigation Measure

BIO-10: A qualified biologist (reviewed and approved by the ACPD) shall survey areas of suitable habitat for western spadefoot toad on the project site, including ruts or small pools within on-site grassland, as well as the seasonal detention pond. The survey shall be conducted during the active season of western spadefoot toad (which corresponds with the rainy season). The survey results shall be submitted to the ACPD and CDFG prior to construction of the two caretaker residences and signage.

If surveys result in the observation of western spadefoot toad within project impact areas in on-site grassland, observed individuals and/or eggs shall be removed from project impact areas (with the prior approval of the CDFG) and be relocated to pre-determined suitable habitat in an appropriate area that will not be impacted. If advisable, the individuals and/or eggs shall be relocated to the shallow edges of the on-site seasonal detention pond or the swale located to the southeast of the pond.

4.4.3.6.15 American Badger Mitigation Measure

BIO-11: A qualified biologist (with selection reviewed and approved by the ACPD) shall conduct pre-ground disturbing clearance surveys within on-site suitable habitat for American badger (burrows within grasslands). Surveys shall be conducted prior to any ground disturbing activities, including grading, construction, or site preparation activities. Specifically, within no more than three days of ground disturbing activities associated with mobile home and sign installation, the qualified biologist shall conduct a survey to see if American badger occurs on the property.

If surveys result in the observation of American badger within project impact areas in onsite grassland or within 200 feet, observed individuals shall be captured, removed from project impact areas through humane exclusion from burrows (with the prior approval of the CDFG), and relocated to suitable habitat in an appropriate area that will not be impacted. This relocation area may be land in the northeastern portion of the project site, which is currently the portion of the site that receives the least frequent human disturbance and is likely to remain so after proposed project implementation. This relocation area may also include off-site lands, such as, if approved by Wildlands Environmental Solutions, Inc., Haera Wildlife Conservation Bank, a 299-acre preserve located in Alameda County, that contains grassland habitat suitable for American badger. If American badger is observed utilizing the site for breeding and denning with young, all ground-disturbing work within 200 feet of the active burrow(s) shall be temporarily postponed until direction from CDFG provides guidance regarding how to proceed.

4.4.3.6.16 San Joaquin Pocket Mouse Mitigation Measure

BIO-12: Surveys for San Joaquin pocket mouse shall be conducted prior to installation of two caretaker residences and signage. Where necessary, temporary fencing (designed to prevent entry of San Joaquin pocket mouse into the work area from surrounding grassland) shall be installed around the perimeter of all areas proposed for construction. Silt fencing with the

bottom edge buried into the ground or a fence providing comparable exclusion properties, shall be erected. Once temporary fencing is installed, a qualified biologist shall conduct a pre-ground disturbing trapping survey to locate any San Joaquin pocket mouse individuals within the enclosed area. Small mammal trapping shall follow the protocol established for the Pacific pocket mouse (Perognathus longimembris pacificus) and currently accepted for other pocket mice, such as Los Angeles pocket mouse (Perognathus longimembris brevinasus). Such protocol calls for five consecutive nights of trapping, unless the target species is captured in less than five nights, conducted when the animal is active above ground at night, and preferably during a new moon phase. Capture and translocation of any such animals shall be conducted by a qualified biologist. All animals removed from the construction zone shall be relocated to suitable habitat in an area that will not be impacted by project activities. The translocation process shall be conducted until it is determined that all special-status animal species have been removed from the disturbance area boundary.

To minimize impacts to San Joaquin pocket mouse associated with potential intensified usage of the northwestern portion of the project site for parking, a qualified biologist shall conduct a trapping survey for San Joaquin pocket mouse individuals at the beginning of the species' active period (the active period is generally from February–September). If individuals of this species are found within parking areas, they shall be captured and relocated to the northeastern portion of the project site, the least disturbed on-site location. Small mammal trapping studies for this species shall continue annually within the unpaved parking area.

4.4.3.6.17 Ferruginous Hawks Mitigation Measure

BIO-13: A qualified biologist (with selection to be reviewed and approved by the ACPD) to conduct roosting ferruginous hawk surveys within suitable habitat (lighting poles and grasslands) throughout the project site. Surveys shall be conducted prior to any ground disturbing activities. Specifically, within no more than three days of ground disturbing activities, the qualified biologist shall conduct a survey to see if ferruginous hawk appears to be utilizing the site for winter roosting.

If a roosting ferruginous hawk individual is observed during surveys, communications with the CDFG shall occur to determine how best to avoid impacts to the species. Because ferruginous hawk is a highly mobile species, direct impacts to fledged individuals of the species would be unlikely to occur. Potential impacts to nesting or non-fledged individuals of this species are addressed under Mitigation Measure BIO-14, below. If the roost appears

to be prominent (several individual ferruginous hawks are using the roost, or the same individual has been utilizing the roost for a period of several days), and project activities would disturb the roost through indirect impacts, the applicant shall provide for the protection of suitable ferruginous hawk winter roosting habitat through fee title or a conservation easement. Communications with the CDFG shall be carried out to determine a suitable location for such mitigation.

4.4.3.6.18 Nesting Birds Mitigation Measure

BIO-14: To avoid impacts to nesting birds associated with installation of the caretaker residences and freeway signage, the applicant shall retain a qualified biologist (with selection to be reviewed and approved by the ACPD) to conduct nesting bird surveys within suitable habitat (willow-cattail stand and grasslands) throughout the project site. Surveys shall be conducted prior to ground disturbing activities. Specifically, within 30 days of initiation of ground disturbing activities, the qualified biologist shall conduct weekly surveys to determine if active nests of bird species protected by the MBTA and/or the CDFG Code are present in the impact area or within 300 feet (500 feet for raptors). Because several birds known to occur in the project area (including raptors, such as Cooper's hawk, and several species of hummingbird) may nest during the late winter, nesting bird surveys shall be carried out both during the typical nesting bird season (mid-March through September) and during late winter (February and early March). The surveys shall continue on a weekly basis, with the last survey being conducted no more than three days prior to initiation of commencement of ground disturbing activities. If ground disturbing activities are delayed, then additional pre-construction surveys will be conducted such that no more than three days have elapsed between the last survey and the commencement of such activities. Surveys shall include examination of trees and the ground with grassland areas for nesting birds, as several bird species known to the area are ground nesters, including mourning dove.

If an active nest is located, clearing and construction within 300 feet of the nest (500 feet for raptor nests) or as designated appropriate by a biological monitor, shall be postponed until the nest is vacated and juveniles have fledged, and there is no evidence of a second attempt at nesting, as determined by a qualified biologist. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described

above to document compliance with applicable state and federal laws pertaining to the protection of native birds.

To avoid impacts to nesting birds associated with intensified usage of the northwestern portion of the project site for parking, during the on-going spring surveys conducted for burrowing owl, as described in Mitigation Measure BIO-4, above, the biologist shall include reconnaissance for nesting birds. If nesting birds are found within parking areas, a buffer shall be established around the nest and the buffer area shall be avoided, as described above, until juveniles have fledged and no attempt at further nesting is observed by the biologist.

Significance After Mitigation: Less than significant

Potential Impact 4.4-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG and Game or USFWS?

The project site does not contain a sensitive natural community as discussed in **Section 4.4.1**, **Environmental Setting**, under the **Local**, **Special-Status Biological Resources**, **Sensitive and Riparian Plant Communities** sub-headings, above. However, the project site does contain 0.2 acre of willow-cattail stand, which is associated with the on-site seasonal detention pond. This plant grouping is considered riparian and falls under the jurisdiction of the CDFG. Construction of the proposed caretaker residences and freeway signage would not result in direct impacts to the pond or any vegetation associated with the pond. However, usage of the project site for continued and increased parking, especially overnight RV parking adjacent to the pond to the west, could have a direct impact on the riparian habitat. Visitors to the site would be expected to spend the night in RVs parked close to the basin, which could result in increased noise and light within close proximity to the riparian habitat, and increase the potential for guests to walk through the riparian area and trample flora and fauna. Although the on-site willow-cattail stand is currently disturbed and makes up only a small area, increases in human-related disturbances could result in further degradation of the quality of the riparian area, which would be a potentially significant impact.

Conclusion: Potentially significant

BIO-15: To mitigate for indirect impacts to riparian habitat, the project applicant shall install wildlife permeable fencing around the on-site drainage areas associated with the seasonal detention pond prior to construction of the caretaker facilities and signage proposed by the project. The fencing may be composed of standard fencing material (wood, vinyl, wrought iron, chain link, or aluminum) and may be post and rail design, or any other design that would

discourage human entry into the pond and riparian area but would allow animal movement in and out of the pond. Signage stating that entry into the seasonal detention pond and riparian area is prohibited due to the presence of sensitive biological resources shall be posted near the fencing. To avoid impacting the seasonal detention pond and associated riparian habitat during fencing and sign installation, a biological monitor shall delineate and approve work areas around the pond, and construction shall take place during the dry season or when no rain is forecast for a week. Biological resources associated with the detention pond will be included in the habitat management plan.

Significance After Mitigation: Less than significant

Potential Impact 4.4-3: Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potential wetlands and waters of the US occur on the project site where the seasonal detention pond and associated swale occur, as discussed above in Section 4.4.1, Environmental Setting, under the Local, Special-Status Biological Resources, Jurisdictional Wetlands and Drainages sub-heading. A formal jurisdictional wetland delineation has not been conducted at the project site. The location of these features is shown on Figure 4.4-1. Impact areas associated with the proposed project do not include the pond or swale; therefore, the project is not expected to result in a direct substantial adverse effect on federally protected wetlands. However, indirect impacts to federally protected waters may occur through increased human presence on the site, associated with increased parking and the presence of RV parking adjacent to, and to the west of, the seasonal detention pond. Impacts could include decreased water quality through contaminants in surface water runoff associated with parked vehicles, as well as the potential for guests staying overnight in the RV parking to walk through and disturb waters of the US. Such activities would be a potentially significant impact.

Conclusion: Potentially significant

BIO-16: To mitigate for indirect impacts to waters of the US associated with runoff contamination from vehicles, prior to allowing an increased number of visitors, including RV parking, on the project site through approval the rezoning approval, the project applicant shall comply with all existing water quality control regulations and shall install fencing around the onsite seasonal detention pond. Fencing shall be installed as described in **Mitigation Measure BIO-4**. It is noted that, since the swale associated with the seasonal detention pond is located on the opposite side of the pond from where the increased parking and over-night RV parking would occur (the swale lies to the east of the pond), this area is unlikely to be impacted by increased usage of the site for parking, and fencing around the swale is unlikely to be necessary. A qualified biologist shall determine if fencing around the swale is necessary.

Significance After Mitigation: Less than significant

Potential Impact 4.4-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project site is not part of an established regional wildlife movement/migration corridor as discussed in **Section 4.4.1, Environmental Setting**, under the **Local, Special-Status Biological Resources, Wildlife Movement Corridors** sub-heading above. Therefore, while implementation of the proposed project would likely decrease local wildlife movement on and across the project site, it would not have a significant impact on wildlife movement in the area. Potential impacts to native wildlife nursery sites exist, if kit fox or American badger is determined to utilize burrows on the site for breeding and denning with young. This is evaluated above through **Mitigation Measures BIO-5** and **BIO-11**, respectively.

Conclusion: Potentially significant

Mitigation Measure: Implementation of **Mitigation Measures BIO-5** and **BIO-11** would reduce this impact to a less than significant level.

Potential Impact 4.4-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The AMP site contains trees only in the willow-cattail stand associated with the seasonal detention pond. This area will not be directly impacted by project activities; as such, no trees will be directly impacted. The proposed project would not conflict with any local policies or ordinances protecting biological resources; therefore no impact is expected.

Conclusion: Less than significant

Mitigation Measure: None required

Potential Impact 4.4-6: Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP?

The AMP site is not located within an area that has adopted a HCP, NCCP, or other approved local, regional, or state HCP. Therefore, there would be no impact.

Conclusion: Less than significant

Mitigation Measure: None required

Potential Impact 4.4-7: Would the project substantially reduce the habitat of a fish or wildlife species?

Implementation of the proposed project could increase frequency of parking and human usage of the project site, and it would result in the removal of 0.2 acres of grassland associated with installation of caretaker residences and freeway signage. Due to the abundance of grassland habitat in the project vicinity, wildlife species utilizing on-site grasslands for habitat would be able to make use of nearby grassland areas, if necessary. Therefore, the proposed project's reduction of the habitat of a fish or wildlife species would be relatively low, and impacts would be less than significant.

Conclusion: Less than significant

Mitigation Measure: None required

Potential Impact 4.4-8: Would the project cause a fish or wildlife population to drop below selfsustaining levels?

Implementation of the proposed project would result in direct and indirect impacts to a variety of common wildlife species. Where construction of the two caretaker residences and installation of the freeway signage would occur, site preparation, grading, and construction/installation would likely eliminate some individuals of slow mobility (e.g., small mammals and reptiles). In addition, indirect impacts to wildlife would likely result from increased human activity, noise, and lighting on the project site. However, given the general abundance of individuals of these common wildlife species in the project area, it is not expected that the development of the proposed project would cause the regional population of any common animal species to drop below self-sustaining levels. Project impacts to the populations of special-status wildlife species are addressed under **Potential Impact 4.4-1** and associated mitigation measures. Therefore, impacts to fish and wildlife populations, both of common and of special-status wildlife species, would be less than significant.

Conclusion: Less than significant

4.4 Biological Resources

Mitigation Measure: None required

Potential Impact 4.4-9: Would the project threaten to eliminate a plant or animal community?

Implementation of the proposed project would result in conversion of 0.2 acres of non-native grassland. The removal of this plant community would impact both the grassland community and the wildlife that depends on it. However, given the fact that the plant and wildlife communities located on the project site also occur on near-by lands, implementation of the proposed project would not threaten to eliminate a plant community or an animal community. Therefore, impacts would be less than significant.

Conclusion: Less than significant

Mitigation Measure: None required

Potential Impact 4.4-10: Would the project reduce the number or restrict the range of a rare or endangered plant or animal?

Several special-status plant and wildlife species either are known to occur on the project site (burrowing owl) or have the potential to occur on site, as discussed under **Potential Impact 4.4-1**, above. **Mitigation Measures BIO-1** through **BIO-14** address impacts to individuals of these species. Through the proposed mitigation measures, direct impacts to individuals are either completely avoided or reduced to a less than significant level. Therefore, the proposed project would not significantly reduce the number of a rare or endangered plant or animal.

Implementation of the proposed project would result in the removal of 0.2 acres of grassland, which either is known to support or has the potential to support several special-status plant and wildlife species. However, the project site is not known to be the range-edge of any of these species. Nor would project impacts be expected to result in such a drastic reduction of habitat of any species that the range of that species is altered. Therefore, project impacts are considered less than significant.

Conclusion: Less than significant

Mitigation Measure: None required