3.8 Biological Resources

Environmental Setting

PHYSICAL SETTING

The Planning Area is located in the center of California's San Joaquin Valley in the western part of Tulare County. Several rivers and creeks flowing from the Sierra Nevada Mountains have created a watershed landscape within the City. The City was historically dominated by oak forest and emergent and riparian wetlands. Today, much of the original forest is gone, but scattered valley oaks still exist in and around the City and along watercourses creating riparian corridors with other riparian trees (see valley oak woodland and valley oak riparian woodland in **Figure 3.8-1**). Areas of pristine valley oak woodland and valley oak riparian woodland still exist in the county, including Kaweah Oaks Preserve, located approximately 3 miles east of the plan area. This preserve also supports special-status species. In addition, Tulare County is one of the most productive agricultural counties in the nation, and these agricultural lands form a perimeter around the City.

The dominant land use within the Planning Area is developed urban. The natural communities, or undeveloped habitat types, associated with the area include annual grassland, valley oak woodland, wetlands (valley oak riparian woodland, freshwater marsh, seasonal wetland, and vernal pool), open water, drainages, and agriculture. Of these types, valley oak woodland, wetlands, open water, and drainages are considered sensitive natural communities (**Figure 3.8-1**). A description of each of these habitats, with associated plant and wildlife species, and potential of special-status species to occur within them is provided below.

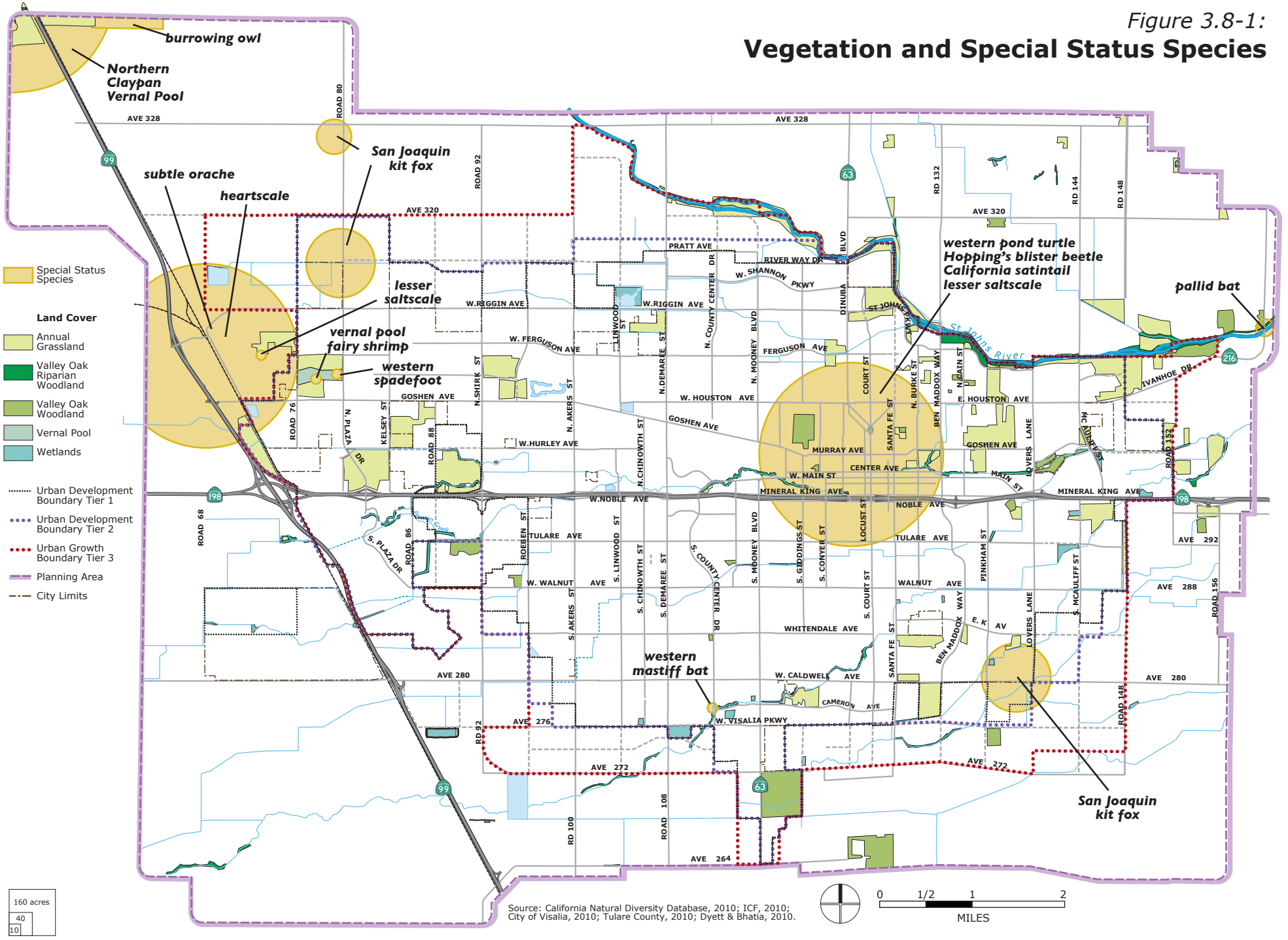
Vegetation Communities

Annual Grassland

Annual grassland is the most common natural community in the City of Visalia. In urban areas such as the City, this community type is often called *ruderal*, or disturbed. This community is composed almost entirely of annual grasses and other herbaceous species. Plants typical of this community include several species of brome (*Bromus* spp.), wild oats (*Avena* spp.), filarees (*Erodium* spp.), schismus (*Schismus* spp.), fescues (*Festuca* spp.), and a variety of native wildflowers such as California poppy (*Eschscholtzia californica*) and phacelia (*Phacelia* spp.), along with other non-native species.

Figure 3.8-1:

Vegetation and Special Status Species



Annual grassland within the Planning Area provides suitable habitat for special-status plant species, such as California jewel-flower and San Joaquin adobe sunburst. However, the annual grassland within the Planning Area is dominated by mostly non-native and weedy species, and the two special-status plants have a low potential to occur.

Annual grasslands are used by a large variety of wildlife species. Reptiles that occur in annual grassland habitats include western fence lizard (*Sceloperous occidentalis*), western skink (*Eumeces skiltonianus*), gopher snake (*Pituophis catenifer*), and western rattlesnake (*Crotalus viridis*). Mammals typically found in this habitat include California vole (*Microtus californicus*), western harvest mouse (*Reithrodontomys megalotis*), California ground squirrel (*Spermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), and coyote (*Canis latrans*). Savannah sparrow (*Passerculus sandwichensis*), western meadowlark (*Sturnella meglecta*), and horned lark (*Eremophila alpestris*) are common birds that breed in annual grasslands. Annual grasslands provide foraging habitat for red-tailed hawk (*Buteo jamaicensis*) and Swainson's hawk (*Buteo swainsoni*), whereas other species occupy annual grassland only when special habitat features such as cliffs, caves, ponds, or woody plants are available for breeding, resting, or as escape cover. In addition, many species that nest or roost in adjacent woodlands may forage in grasslands, including western bluebird (*Sialia mexicana*), western kingbird (*Tyrannus verticalis*), lark sparrow (*Chondestes grammacus*), and some species of bats. Amphibians such as western toad (*Bufo boreas*), Pacific tree frog (*Hyla regilla*), and western spadefoot (*Spea hammondii*) can be found in annual grassland habitat adjacent to suitable aquatic breeding habitat.

Annual grassland is a common habitat locally and regionally and is not considered by the California Department of Fish and Wildlife (DFW) to be a sensitive natural community.

Valley Oak Woodland

Valley oak woodland can vary from savannas of annual grasslands with few trees to dense stands of trees. This woodland is dominated by valley oak (*Quercus lobata*) but can have associates of western sycamore (*Platanus racemosa*), California black walnut (*Juglans californica* var. *hindsii*), interior live oak (*Quercus wislizenii*), box elder (*Acer negundo* var. *californica*), and blue oak (*Quercus douglasii*). Shrub species include California coffeeberry (*Rhamnus californica*), poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and blackberry (*Rubus* sp.). Annual grasses and forbs dominate the herbaceous layer.

Oak woodlands are important habitats because of their high value to wildlife in the form of nesting sites, cover, and food. Cavities in oak trees are important nesting sites for many bird species. Birds associated with oak woodlands include acorn woodpeckers (*Melanerpes formicivorus*), Nuttall's woodpeckers (*Picoides nuttallii)*, western scrub jay (*Aphelocoma californica)*, tree swallow (*Tachycineta bicolor*), oak titmouse (*Baeolophus inornatus*), western bluebird (*Sialia mexicana*), and yellow-rumped warbler (*Dendroica coronata*). Tree cavities also provide important roosting habitat for some species of bats. Oak woodlands provide nesting sites for raptors, such as red-tailed hawks, and great horned owls (*Bubo virginianus*). Mammals associated with woodlands include western gray squirrel (*Sciurus griseus*), bobcat (*Lynx rufus*), black-tailed deer (*Odocoileus hemionus*), and gray fox (*Urocyon cinereoagenteus*).

Oak woodland is a common habitat locally and regionally and is not considered by the DFW to be a sensitive natural community; however, native oak trees and woodland habitats are declining

statewide because of development and land management practices. The City has made efforts to restore oak woodland by creating an urban forestry program that has planted over 5,000 trees. In addition, the City of Visalia's Valley Oak Ordinance regulates pruning and removal of valley oak trees within the city limits. For these reasons, oak woodlands should be considered sensitive because they provide important habitat for local resident wildlife and are limited in extent compared with their historical distribution.

Valley Oak Riparian Woodland

The Planning Area has several major waterways that flow through the City. Valley oak riparian woodland occurs along the St. Johns River, Mill Creek, Packwood Creek, Cameron Creek, and along the numerous smaller perennial and ephemeral drainages (ditches). Valley oak riparian woodlands in the Planning Area are typically dominated by a mixture of trees and shrubs, including valley oak, California sycamore, Fremont cottonwood (*Populus fremontii*), Oregon ash (*Fraxinus latifolia*), wild grape (*Vitis californica*), and a variety of willows (*Salix* sp.).

Because the vegetation is diverse and well developed, riparian forest provides high-value habitat for wildlife, including several special-status species. Riparian forest habitat provides food, water, and migration and dispersal corridors, as well as escape, nesting, and thermal cover for many wildlife species. Invertebrates, amphibians, and aquatic reptiles live in aquatic and adjacent upland habitats. Raptors, such as red-tailed hawks, Cooper's hawk (*Accipiter cooperi*), and red-shouldered hawks (*Buteo lineatus*), great blue herons (*Ardea herodias*), black-crowned night herons (*Nycticorax nycticoraz*), great egrets (*Ardea alba*), belted kingfishers (*Ceryle alcyon*) and many other birds species nest in Valley oak riparian woodland. Various songbirds use the shrub canopy, and cavity-nesting birds, such as Nuttall's woodpecker, oak titmouse, and American kestrels, occupy dying trees and snags. Several mammals, including raccoons (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunks (*Mephitis mephitis*) are common in riparian habitats.

Valley oak riparian habitats are considered sensitive natural communities by the DFW and should be given special consideration in the Planning Area because they provide several important ecological functions, including streambank stabilization, water quality maintenance, and essential habitat for wildlife and fisheries resources.

Wetlands

Wetlands are considered sensitive natural communities by several resource agencies and should be given special consideration in the Planning Area because they provide a variety of important ecological functions and essential habitat for wildlife resources. Natural wetland habitats are steadily declining compared to their historical distribution, as a result of land management practices and development activities. The U.S. Army Corps of Engineers (USACE), the DFW, and the U.S. Fish and Wildlife Service (USFWS) have policies and regulations that protect wetland habitats.

Three main categories of wetlands occur within the Planning Area: freshwater marsh, seasonal wetland, and vernal pool. These wetland types are described below.

Freshwater Marsh

Freshwater marsh occurs along the margins of drainages and open water habitats in the Planning Area. Some agricultural areas within the Planning Area also support patches of freshwater marsh. Characteristic vegetation within freshwater marsh includes cattails (*Typha* sp.), rushes (*Juncus* sp.), and sedges (*Carex* sp.).

Freshwater marsh is among the most productive wildlife habitats in the state. Vegetation associated with freshwater marsh provides foraging, nesting, and refuge habitat for numerous wildlife species that also occur in the adjacent open water. Common wildlife that is expected to occur in freshwater marsh habitats within the Planning Area include Pacific tree frog, bull frog, (*Rana catesbeiana*) common garter snake (*Thamnophis sirtalis*), great blue heron, great egret, red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), and marsh wren (*Cistothorus palustris*), and many species of waterfowl.

Seasonal Wetland

Seasonal wetlands typically occur in topographically low-lying areas along the edges of freshwater wetlands and along seasonal drainages. The primary distinction between these two types of wetlands is the length of time each is inundated with water. Freshwater marsh wetlands typically retain water for extended periods into the growing season, while seasonal wetlands usually flood or are saturated for short periods and do not remain inundated for very long into the growing season. Dominant species found in seasonal wetlands include Italian ryegrass (*Lolium multiflorum*), pale spikerush *(Eleocharis macrostachya*), bird's-foot trefoil (*Lotus corniculatus*), Baltic rush (*Juncus balticus*), and curly dock (*Rumex crispus*).

Seasonal wetlands provide habitat for many aquatic invertebrates whose eggs are able to survive the dry period and then hatch shortly after the wetlands are inundated. Seasonal wetlands also provide suitable aquatic breeding habitat for California tiger salamander, Pacific tree frog, western toad, and western spadefoot as long as they remain inundated long enough for the larvae to metamorph. Many species of birds, including ducks and songbirds utilize seasonal wetlands for foraging habitat. The short inundation period precludes the establishment of non-native bullfrogs and fish.

Vernal Pool

Vernal pools are depressions in the landscape that pond water intermittently during the rainy season and are completely dry during late spring and summer. Vernal pools pond because they contain an impervious soil layer that prevents water from infiltrating into the lower soil layers. Because of their unique hydrologic regime, they support a highly specialized flora adapted to prolonged inundation and subsequent dry periods. Vernal pools were historically widespread throughout the region, but their extent is now limited due to development and agricultural conversion over the last 150 years.

Vernal pools could occur within areas that contain annual grassland within the Planning Area; including rural residential and pasture lands. One vernal pool is known to occur in the far western portion of the Planning Area. It is located on a parcel at the corner of Goshen Ave and Plaza Drive, and is currently zoned as Heavy Industry on the City of Visalia General Plan/ Land Use and Circulation Element (dated 03-15-10). This vernal pool occurs within annual grassland

and was reported as having native topography intact but vegetation was disked (CNDDB 2010). Typical plants within disturbed vernal pools in the region include pale spike rush, annual rabbitsfoot grass *(Polypogon monspeliensis)*, coyote thistle (*Eryngium* sp.), and navarretia (*Navarretia* sp).

Vernal pools provide habitat for many aquatic invertebrates, including federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp, that have evolved for their eggs to survive desiccation when the pools dry in the spring and remain dry until the next rains, generally in late October or November. Vernal pools also provide aquatic breeding habitat for Pacific tree frog and western spadefoot.

Open Water

Open water communities in the Planning Area include agricultural ponds (lacustrine) and areas within the high water mark of perennial and ephemeral drainages (riverine). These communities are generally unvegetated. Most of these areas are regulated under the jurisdiction of the USACE and the Regional Water Quality Control Board (RWQCB).

Lacustrine habitats provide aquatic and breeding habitat for amphibians such as Pacific tree frog and western toad. Reptile species that utilize aquatic habitats include common garter snake and western pond turtle (*Actinemys marmorata*). Introduced species that utilize aquatic habitats include bullfrogs, red-eared slider (*Trachemys scripta*), and many species of fish.

Drainages

Perennial and ephemeral drainages occur throughout the Planning Area originating from the Sierra Nevada Mountain Range from the east and flowing west into the valley. These drainages typically are associated with riparian habitat described above and may support areas of freshwater marsh. Primary drainages within the Planning Area include the St. Johns River, Mill Creek, Packwood Creek, and Cameron Creek. Smaller drainages within the Planning Area include the Modoc, Persian, Mill Creek, Evans, Oakes, Tulare, and Watson Ditches.

Open water and riverine habitat provide habitat for a variety of wildlife. Western pond turtles and red-eared sliders utilize riverine habitats. Birds such as great blue herons, great egrets, and belted kingfishers (*Ceryle alcyon*) forage in these communities, primarily along the water's edge. Many species of insectivorous birds (e.g., swallows, swifts, and flycatchers) catch their prey over open water. River otter, muskrat, beaver, and raccoons are common mammals that can be found in and along riverine habitat include.

Drainages are considered *other waters of the United States* by the USACE and are regulated by the USACE, the DFW, and the USFWS.

Agricultural Land

Agriculture forms the backbone of the City of Visalia and surrounding land. An abundance of crops are exported from this area including grains, fruits and nuts, vegetables, wine grapes, and most notably cotton and milk.

Agricultural lands are established on fertile soils that historically supported abundant wildlife. The quality of habitat for wildlife is greatly diminished when the land is converted to agricultural uses and is intensively managed. Many species of rodents and birds have adapted to agricultural lands, but they are often controlled by fencing, trapping, and poisoning to prevent excessive crop losses. However, depending on the crop pattern and the proximity to native habitats, row crops can provide relatively high-value habitat for wildlife, particularly as foraging habitat.

Raptor species use row- and grain-crop agricultural lands for foraging because several species of common rodents are found in agricultural fields. Fallow agricultural fields provide important foraging and resting habitat for migrating and wintering waterfowl and shorebirds.

Wildlife species associated with agricultural lands include mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), various raptor species, egrets, and many species of rodents.

For a detailed description of the agricultural lands within the Plan area, please refer to Chapter 3.5, Agriculture and Soils.

Urban Areas

Biological communities in these areas are relatively limited and support a predominance of horticultural plant species rather than native species. However, the City has preserved many valley oaks in urban areas.

Urban areas generally have a lower value for wildlife because of human disturbance and a lack of vegetation. Wildlife species that use these areas are typically adapted to human disturbance. However, more densely vegetated "urban forests" can provide habitat for songbirds and some raptor species.

Wildlife species associated with urban residential and suburban areas include western scrub jay, northern mockingbird (*Mimus polyglottos*), yellow-billed magpie (*Pica nuttalli*), house finch (*Carpodacus mexicanus*), rock dove (*Columba livia*), raccoon, Virginia opossum, and striped skunk.

Special-Status Species

Special-status species are plants and animals that are legally protected under state and federal Endangered Species Acts or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status plants and animals are species in the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [proposed species];
- Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (73 FR 75176, December 10, 2008);

- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered species Act (14 CCR 670.5);
- Species that meet the definitions of rare or endangered under California Environmental Quality Act (CEQA) (State CEQA Guidelines, Section 15380);
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2 in California Native Plant Society 2009);
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in California Native 2009), which may be included as special-status species on the basis of local significance or recent biological information;
- Animal species of special concern to the California Department of Fish and Game (California Department of Fish and Game 2011); and
- Animals fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles]).

Special-Status Plant Species

Table 3.8-1 is a current list of special-status plant species that have a moderate to high potential to occur in or near the Planning area of the City of Visalia, based on a review of CNPS, CNDDB, and USFWS sources.

A table providing a list of all special status plants that occur within a five-mile radius of the Planning area is provided in Appendix C. **Figure 3.8-1** shows the location of the California Natural Diversity Database (CNDDB) occurrence locations within the Planning Area and within a five-mile buffer of the Planning Area.

These species should be addressed, where appropriate, during environmental review of individual projects during implementation of the proposed General Plan.

Table 3.8-1: Special-Status Plant Species with a Moderate to High Potential to Occur within the Planning Area

Scientific and Common Name	*Federal Status*	*State Stats*	*CNPS Stats*	*Habitat*	*Potential to Occur in General Plan Area*
Atriplex cordulata var. *cordulata* Heartscale	—	—	1B.2	Saline or alkaline area in chenopod scrub, meadows and seeps, sandy soils in valley and foothill grassland; below 375 meters	Moderate. Known occurrence is within Planning Area boundary, however CNDDB update (from 2011) reported 2009 surveys did not find population or suitable microhabitat.

Atriplex cordulata var. *erecticaulis* Earlimart orache	—	—	1B.2	Valley and foothill grassland; 40-100 meters	Moderate. Known occurrence is approximately 3 miles north of Planning Area and is on alkali soils associated with Cottonwood Creek.
Atriplex depressa Brittlescale	—	—	1B.2	Alkaline clay soils in chenopod scrub, playas, valley and foothill grasslands; below 320 meters	Moderate. Not recorded on CNDDB as occurring within area, but species is closely related to *A. minuscula* which has an occurrence within the Planning Area boundary.
Atriplex minuscula Lesser saltscale	—	—	1B.1	Sandy alkaline soils in chenopod scrub, playas, valley and foothill grassland; 15-200 meters	High. Known occurrence is within the Planning Area within alkali grassland in Goshen. CNDDB update from 2011 reports 25 plants observed in 2002.
Atriplex subtilis Subtle orache	—	—	1B.2	Alkali scalds and alkali grasslands, often near vernal pools; 40-100 meters	Moderate. Known occurrence is within Planning Area boundary. CNDDB update (from 2011) reported 2009 surveys did not find population or suitable microhabitat.
Imperata brevifolia California satintail	—	—	2.1	Mesic sites in chaparral, coastal scrub, Mojave desert scrub, meadows often alkali, riparian scrub; 0-500 meters	Moderate. Known occurrence is within the Planning Area. However, this occurrence is dated from1895 and exact location is unknown.

Status Definitions:

U.S. Fish and Wildlife Service

Federal

E = listed as endangered under the federal Endangered Species Act.

T = listed as threatened under the federal Endangered Species Act.

– = No status definition.

State

E = listed as endangered under the California Endangered Species Act.

R = listed as rare under the California Native Plant Protection Act and California Endangered Species Act.

– = No status definition.

California Native Plant Society (CNPS)

1A= List 1A species: presumed extinct in California

1B= List 1B species: rare, threatened, or endangered in California and elsewhere

2 = List 2 species: rare, threatened, or endangered in California, but more common elsewhere

3 = List 3 species: plants about which we need more information—a review list

4 = List 4 species: plants of limited distribution—a watch list

CNPS Code Extensions:

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat

0.2 = fairly endangered in California (20- 80% of occurrences threatened)

0.3 = not very endangered in California (<20% of occurrences threatened or not current threats known)

Definitions of levels of occurrence likelihood:

High: Known occurrence of plant within 5 miles of the project from Natural Diversity Data Base, California Native Plant Society Inventory, or other documents. Suitable habitat and microhabitat conditions present.

Moderate: Known occurrence of plant in Tulare County, but more than 5 miles from the Planning Area, from Natural Diversity Data Base, California Native Plant Society Inventory, or other documents. Suitable habitat conditions present, but suitable microhabitat conditions unlikely to be present or of poor quality.

Low: Plant not known to occur in the region from the Natural Diversity Data Base, California Native Plant Society Inventory, or other documents in the vicinity of the project, or plant is known only historically from the region. Habitat conditions of poor quality.

None: Plant not known to occur in the region from the Natural Diversity Data Base, and California Native Plant Society Inventory. Suitable habitat not present in any condition.

Source: CNDDB Dated 9/4/2012 Information Expires 3/4/2013, CNPS Accessed 9/25/2012, USFWS Accessed 9/25/2012

Special-Status Wildlife Species

Table 3.8-2 is a current list of special-status wildlife species that were identified by a review of the CNDDB and a list obtained from the USFWS that have been known to occur or have a potential to occur within the Plan Area. These species should be addressed where appropriate during environmental review of project during implementation of the proposed General Plan Update.

A table providing a list of all special-status wildlife species that occur within a five-mile radius of the Planning area is provided in Appendix C.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
INVERTEBRATES				
Branchinecta conservario CONSERVANCY FAIRY SHRIMP	FE	--	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties. Large, deep vernal pools in annual grasslands.	No known occurrences within Plan area. Plan area is outside of species distribution.
Branchinecta lynchi VERNAL POOL FAIRY SHRIMP	FT	--	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County. Found in vernal pools, particularly small, clear-water sandstone depression pools and grassy swale, earth slump, or basalt-flow depression pools.	Known occurrence in the Plan area on a parcel of undeveloped parcel NE of Rd 76 and W. Goshen Ave. near town of Goshen. Potential to occur in parcels containing vernal pools and in ponded areas in the Plan area.
Desmocerus californicus dimorphus VALLEY ELDERBERRY LONGHORN BEETLE	FT	--	Streamside habitats below 3,000 feet throughout the Central Valley. Elderberry shrubs with stem diameters of at least 1 inch. Species always found close to host plant. Larvae may remain in stems for up to 2 years.	No known occurrences within Plan area. There is potential for this species to occur in the Plan area in riparian woodlands along streams where elderberry shrubs are present.
Lepidurus packardi VERNAL POOL TADPOLE SHRIMP	FE	--	Throughout the Central Valley from Shasta County south to Tulare County. Vernal pools, seasonal wetlands, and ephemeral stock ponds.	No known occurrences within Plan area. There is potential for this species to occur in parcels containing vernal pools and in ponded areas
AMPHIBIANS				
Ambystoma californiense CALIFORNIA TIGER SALAMANDER	FT	ST	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	No known occurrences within Plan area. Known occurrences and federal Critical Habitat occurs northwest of Plan area. Plan area does not contain seasonal pools

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			Annual grasslands and grassy understory of valley-foothill hardwood habitats (i.e., oak-savannah). Require vernal pools or other seasonal water sources for breeding. Require mammal burrows or other underground refuges.	that inundate for suitable duration.
Rana draytonii CALIFORNIA RED-LEGGED FROG	FT	--	Found along coast and coastal mountain ranges of California from Marin County to San Diego County and in Sierra Nevada from Tehama County to Fresno County Permanent and semipermanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods	No known occurrences within Plan area. Plan area is outside of species distribution.
Spea hammondii WESTERN SPADEFOOT	--	CSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California. Grassland and valley-foothill hardwood woodlands, vernal pools or seasonal wetlands are essential for egg laying.	Known occurrence in the Plan area on a parcel of undeveloped parcel NE of Rd 76 and W. Goshen Ave. near town of Goshen. There is potential for this species to occur in parcels containing vernal pools and in ponded areas in the Plan area.
REPTILES				
Actinemys marmorata WESTERN POND TURTLE	--	CSC	Occurs from the Oregon border of Del Norte and Siskiyou Counties south along coast to San Francisco Bay, inland through Sacramento Valley, and on western slope of Sierra Nevada. Ponds, marshes, rivers, streams, irrigation ditches, vernal pools. Needs basking	One occurrence in the Plan area from the 1870s. No recent occurrences in Plan area. There is potential for this species to occur in streams and ponded areas in the Plan area.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			sites such as partially submerged logs or rocks, and suitable upland habit (sandy banks or grassy open fields) for egg laying.	
Gambelia sila BLUNT-NOSED LEOPARD LIZARD	FE	SE/FP	Occurs in scattered parcels of undeveloped and fallow lands on the Central Valley floor, Carrizo Plain, Cuyama Valley, and in the foothills of the Coast Range. Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seek cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	No known occurrences within Plan area. Plan area is outside of species distribution.
Phrynosoma coronatum frontale COAST (CALIFORNIA) HORNED LIZARD	--	CSC	Sacramento Valley, including foothills, south to southern California. Coast Ranges south of Sonoma County. Below 4,000 feet in northern California. Sandy loam areas and on alkali flats. Dietary specialists dependent on ants, as well as beetles and other seasonally abundant insects. Forage on the ground in open areas, usually between shrubs and often near an ant nest. Utilize small mammal burrows or burrow under surface objects during periods of extended inactivity or hibernation.	No known occurrences within Plan area. There is potential for this species to occur in annual grassland habitats within the Plan area.
Thamnophis gigas GIANT GARTER SNAKE	FT	ST	Central Valley from vicinity of Burrel in Fresno County north to near Chico in Butte County. Has been extirpated from areas south of Fresno. Sloughs, canals, low-gradient streams, and freshwater marsh habitats where there is a prey base of small fish and	No known occurrences within Plan area. Plan area is outside of species distribution.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			amphibians. Also found in irrigation ditches and rice fields. Requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter	
BIRDS				
Agelaius tricolor TRICOLORED BLACKBIRD	--	CSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County and at scattered locations in Lake, Sonoma, and Solano Counties. Almost endemic to California; permanent resident and migrant. Highly colonial species, most numerous in Central Valley and vicinity. Nests next to open water typically in freshwater marsh habitat where there is extensive emergent or riparian vegetation. Increasing percentage of breeding colonies has been reported in grain fields. Forages in grasslands, wetland habitats, and some agricultural areas.	No known occurrences within Plan area. There is potential for this species to nest in ponded areas and parcels containing grain fields within the Plan area.
Ammodramus savannarum GRASSHOPPER SPARROW	--	CSC	Summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest. Occurs in California primarily as a summer (breeding) resident. At least partly migratory. Ecological requirements vary substantially from region to region within its wide range. In general, prefer short to middle-height, moderately open grasslands with	No known occurrences within Plan area. There is potential for this species to occur in areas containing annual grassland habitat.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			scattered shrubs. Ground nester.	
Aquila chrysaetos GOLDEN EAGLE	--	CSC, FP	Foothills and mountains throughout California. Uncommon non-breeding visitor to lowlands such as the Central Valley. Nests on cliff edges or large trees in open areas. Needs open terrain for hunting: grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats.	No known occurrences within Plan area. No potential to nest in the Plan area but may forage in areas that contain annual grasslands.
Athene cunicularia WESTERN BURROWING OWL	--	CSC	Lowlands throughout California, including Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Year round resident throughout much of California range. Migrants from other parts of western North America may augment resident populations in winter. Found in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Uses small burrows for nesting and roosting.	No known occurrences within Plan area. There is potential for this species to nest within the Plan area where ground squirrel burrows and other man-made burrows are present.
Buteo swainsoni SWAINSON'S HAWK	--	ST	Lower Sacramento and San Joaquin Valleys, Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland in Yolo County. Breeds in California, few residents remain in winter. Found in open country such as grassland, shrubland, and agricultural areas. Nests in riparian areas and oak woodlands as well as isolated and roadside trees close to grassland or agricultural	No known occurrences within Plan area. There is potential for this species to nest in large trees in the Plan area and forage in grassland and agricultural fields within the Plan area.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			foraging habitat.	
Cirus cyaneus NORTHERN HARRIER	--	CSC	Occurs throughout lowland California. Has been recorded in fall at high elevations. Occurs year round within breeding range in California and may potentially winter in areas statewide. Breeds and forages in variety of open (treeless) habitats such as marshes, meadows, pastures, prairies, weedy borders of lakes, rivers, and streams, grasslands, some croplands, sagebrush flats, and desert sinks. Constructs nests on ground in open field or meadow in shrubby vegetation, usually near wet areas.	No known occurrences within Plan area. There is potential for this species to nest in grasslands and wetlands within the Plan area and forage in grassland and agricultural fields within the Plan area.
Elanus leucurus WHITE TAILED KITE	--	FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at Mexico border. Found year round within California range in grasslands, agricultural fields, oak woodlands, savannah, and riparian habitats in rural and urban areas. They are often found along tree-lined river valleys with adjacent open areas. Nests in trees.	No known occurrences within Plan area. There is potential for this species to nest in large trees in the Plan area and forage in grassland and agricultural fields within the Plan area.
Gymnogyps californianus CALIFORNIA CONDOR	FE	SE/FP	Permanent resident of the semi-arid, rugged mountain ranges surrounding southern San Joaquin Valley. Nests in caves, crevices, behind rock slabs, or on large ledges on high sandstone cliffs.	No known occurrences within Plan area. No potential to nest in the Plan area and unlikely to forage in the Plan area because of the rarity of the species.
Haliaeetus leucocephalus BALD EAGLE	Delisted	SE/FP	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake,	No known occurrences within Plan area. No large lakes or reservoirs

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			and Mendocino Counties and in Lake Tahoe Basin. Reintroduced into central coast. Winter range includes rest of California, except southeastern deserts, very high altitudes in Sierra Nevada, and east of Sierra Nevada south of Mono County. Mainly found in mountainous habitats near reservoirs, lakes and rivers and builds nests in the upper canopy of large coniferous trees. Most nest within 1 mile of water.	in Plan area that would attract species.
Lanius ludovicianus LOGGERHEAD SHRIKE	--	CSC	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter. Year round throughout most of California range; some breeding populations may be migratory. Wintering individuals augment resident populations and occupy areas where none breed. Breeds and forages in open habitats interspersed with shrubs and small trees, including disturbed habitats. Nests placed in trees.	No known occurrences within Plan area. There is potential for this species to occur in grassland habitats in the Plan area.
MAMMALS				
Antrozous pallidus PALLID BAT	--	CSC	Occurs throughout California except the high Sierra Nevada from Shasta County to Kern County and the northwest coast; primarily at lower and mid-elevations. Occurs throughout California; species forages in open areas of grasslands, shrublands, woodlands, and forests from sea level up through 6,560	No known occurrences within Plan area. There is potential for this species to occur in riparian woodland habitat in the Plan area.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			feet; roosts in caves, rock crevices, mines, hollow trees, buildings, and bridges.	
Dipodomys nitratoides exilis FRESNO KANGAROO RAT	FE	SE	Historically occurred in Merced, Madera, and Fresno Counties. Last known occurrence was at Alkali Sink Ecological Reserve in western Fresno County. Occupies sandy alkaline soils in chenopod scrub and annual grassland communities on the Valley floor.	No known occurrences within Plan area. Species is thought to be extinct.
Dipodomys nitratoides nitratoides TIPTON KANGAROO RAT	FE	SE	Occurs in the Tulare Lake basin of the southern San Joaquin Valley. Inhabits saltbush scrub and alkali sink scrub communities in the San Joaquin Valley. This species needs soft friable soils which escape seasonal flooding. Digs burrows in elevated soil mounds at bases of shrubs.	No known occurrences within Plan area. Unlikely to occur within the Plan area because of the lack of alkali scrub habitat
Eumops perotis californicus WESTERN MASTIFF BAT	--	CSC	Occurs in southeastern San Joaquin Valley and Coastal Range south of Monterey County and throughout southern California. Roosts in crevices in cliff faces, high buildings, and tunnels; forages in arid, semi arid habitat-coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral.	Known occurrence along Packwood Creek in southern portion of Plan area. There is potential for this species to occur in riparian woodland habitat in the Plan area.
Taxidea taxus AMERICAN BADGER	--	CSC	Found throughout most of California except in the northern North Coast area. Suitable habitat is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils. Occurs throughout California	No known occurrences within Plan area. There is potential for this species to occur in grassland habitats in the Plan area.

Table 3.8-2: Special-Status Wildlife Species with the Potential to occur within the City of Visalia General Plan Area

Scientific and Common Name	*Federal Status*	*State Status*	*Geographic Distribution and Habitat requirements*	*Potential to Occur within the General Plan Area*
			in grasslands, savannas, and mountain meadows near timberline; require friable soils, and relatively open, uncultivated ground; requires suitable prey base of burrowing rodents such as gophers, ground squirrels, marmots, and kangaroo rats.	
Vulpes macrotis mutica SAN JOAQUIN KIT FOX	FE	ST	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County. Occurs in the San Joaquin Valley in annual grassland or grassy open stages with scattered shrubby vegetation; requires loose-textured sandy soils for burrowing; requires suitable prey base of small rodents, including kangaroo rats or California ground squirrels.	2 Known occurrences from the 1970's in Plan area. Several occurrences, mainly from 1970s and 1980s but one from 2003 in areas surrounding Plan area. Because of the amount of development and agriculture that occurs within the Plan Area, San Joaquin kit foxes are not likely to persist in the Plan Area but may occasionally move through the Plan Area between more suitable habitat to the north and south.

Status definitions

Federal Status

FE = Listed as endangered under the Federal Endangered Species Act.

FT = Listed as threatened under the Federal Endangered Species Act.

Delisted = Species that has been removed from listing under the Federal Endangered Species Act.

State Status

SE = Listed as endangered under the California Endangered Species Act.

ST = Listed as threatened under the California Endangered Species Act.

CSC = California Species of Special Concern designated by the California Department of Fish and Game

FP = Fully Protected Species designated by the California Department of Fish and Game

Source: CNDDB Dated 9/4/2012 Information Expires 3/4/2013, and U.S. Fish and Wildlife Service 2012 (Obtained from the U.S. fish and Wildlife Service, Sacramento Office website http://www.fws.gov/sacramento/ - accessed September 25, 2012

Invertebrates

Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) is listed as threatened under ESA. Federal critical habitat for this species was originally designated in August 6, 2003, and the critical habitat designation was revised on August 11, 2005. The shrimp is found at scattered locations throughout California's Central Valley, ranging from the Millville Plains and Stillwater Plains in Shasta County south through most of the length of the Central Valley, and to the eastern margins of the Coast Ranges, from San Benito County south to Ventura County (U.S. Fish and Wildlife Service 2007).

Vernal pool fairy shrimp inhabits clear to turbid water in earth sumps and grass- or mud-bottom vernal pools and swales in unplowed grasslands and basalt-flow vernal pools. The species also has been observed in rock outcrop pools, roadside ditches, road ruts, bulldozer scrapes, and backhoe pits. Fairy shrimp produce cysts (eggs) that lie dormant in the soil over summer and hatch during the winter rainy season, when favorable environmental conditions prevail: when pools are inundated, the water temperature is cool, and high oxygen concentration is present (Eriksen and Belk 1999).

Vernal Pool Tadpole Shrimp

Vernal pool tadpole shrimp (*Lepidurs packardi*) is listed as endangered under ESA. Federal critical habitat for this species was originally designated in August 6, 2003, and the critical habitat designation was revised on August 11, 2005. The species is found in scattered locations throughout the Sacramento and San Joaquin Valleys and also has been reported from the Sacramento–San Joaquin River Delta (Delta) to the east side of San Francisco Bay (U.S. Fish and Wildlife Service 2005).

Vernal pool tadpole shrimp have been found in grassland pools with clear to highly turbid water, low conductivity, low alkalinity, and low total dissolved solids. It has also been observed in stock ponds, pools in old alluvial soil, grass bottom swales, and other seasonal wetlands. The life history of the vernal pool tadpole shrimp is similar to that of fairy shrimp described above, except the tadpole shrimp are longer-lived, usually persisting well into the early spring. These crustaceans hatch when the rains first inundate the habitat, maturing to adult in 20 to 30 days, mating, shedding their cysts (eggs), and dying. The resting cysts lie in the soil crust through the summer, hatching with the next season's rains. The cysts may lie dormant for decades before hatching (U.S. Fish and Wildlife Service 2005).

Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is listed as threatened under the ESA. Federal critical habitat for this species was formally designated on August 8, 1980. Its range extends throughout the Central Valley and associated foothills, from the 3,000-foot contour in the Sierra Nevada foothills, across the valley floor, to the Central Valley watershed in the foothills of the Coast Ranges (U.S. Fish and Wildlife Service 2006). Valley elderberry longhorn beetle's life cycle is entirely dependent on its host plants—elderberry shrubs (*Sambucus* spp.) (Collinge et al. 2001). Red and blue elderberry both occur commonly in riparian forest patches along the rivers, creeks, and other drainages in the Central Valley and surrounding foothills.

Elderberry shrubs also can be found as isolated bushes or clumps of bushes in elderberry savannas adjacent to riparian vegetation (Collinge et al. 2001). Elderberry shrubs usually co-occur with other woody riparian plants, including Fremont cottonwood, California sycamore, various willows, wild grape, blackberry, and poison-oak (Collinge et al. 2001).

Amphibians

Western Spadefoot

The western spadefoot is a California species of special concern. The western spadefoot is distributed among the Sierra Nevada foothills, Central Valley, Coast Ranges, and coastal counties in southern California (Jennings and Hayes 1994). The western spadefoot can be found in dry grassland habitat close to seasonal wetlands such as vernal pool complexes, typically near extensive areas of friable (but usually not sandy) soil. They require seasonal wetlands for reproduction and metamorphosis. Adult western spadefoots spend most of the year in self-excavated underground retreats and possibly in mammal burrows (Stebbins 2003). They emerge from underground retreats during heavy rains in autumn and winter, and spawn in seasonal wetlands (e.g., vernal pools) in late winter or early spring (Jennings and Hayes 1994).

Reptiles

Western Pond Turtle

The western pond turtle is a California species of special concern. The western pond turtle is the only turtle native to California. It was found historically in most Pacific slope drainages between the Oregon and Mexican borders. It still is found in suitable habitats west of the Sierra-Cascade crest (Jennings and Hayes 1994). Western pond turtles require some slow-water aquatic habitat and are uncommon in high-gradient streams (Jennings and Hayes 1994). The banks of inhabited waters usually have thick vegetation, but basking sites such as logs, rocks, or open banks also must be present. Depending on the latitude, elevation, and habitat type, the western pond turtle may become inactive over winter or remain active year-round. Nest sites typically are found on slopes that are unshaded, with high clay or silt composition. Eggs are laid from March to August, depending on local conditions, and incubation lasts from 73 to 80 days (Jennings and Hayes 1994).

Coast Horned Lizard

The California horned lizard (*Phrynosoma coronatum frontale*) is a California species of special concern. This species occurs throughout the Central Valley and Coast Ranges from Shasta County south to Los Angeles, Ventura, and Santa Barbara Counties (Stebbins 2003). California horned lizards occur in a variety of habitats, including clearings in riparian woodlands, chamise chaparral, and grasslands with loose, friable soils. During periods of inactivity, California horned lizards use small mammal burrows or burrow into loose soils under surface objects (Jennings and Hayes 1994).

Birds

Swainson's Hawk

Swainson's hawk (*Buteo swainsonii*) is listed as threatened under CESA. Swainson's hawks inhabit grasslands, sage-steppe plains, and agricultural regions of western North America during the

breeding season, and winter in grassland and agricultural regions from central Mexico to southern South America (England et al. 2010). In California, the nesting distribution includes the Sacramento and San Joaquin Valleys, the Great Basin sage-steppe communities and associated agricultural valleys in extreme northeastern California, isolated valleys in the Sierra Nevada in Mono and Inyo Counties, and limited areas of the Mojave Desert region (California Department of Fish and Game 2005).

In California, Swainson's hawk habitat generally consists of large, flat, open, undeveloped landscapes that include suitable grassland or agricultural foraging habitat and sparsely distributed trees for nesting (England et al. 2010). Foraging habitat includes open fields and pastures. Preferred foraging habitats for Swainson's hawk include alfalfa fields, fallow fields, low-growing row or field crops, rice fields during the nonflooded period, and cereal grain crops (California Department of Fish and Game 2005). Prey species include ground squirrels, California voles, pocket gophers, deer mice, reptiles, and insects (California Department of Fish and Game 2005; England et al. 2010). Swainson's hawks usually nest in large native trees such as valley oak (*Quercus lobata*), Fremont cottonwood, and willows, although nonnative trees such as eucalyptus (*Eucalyptus* spp.) occasionally are used. Nests occur in riparian woodlands, roadside trees, trees along field borders, isolated trees and small groves, trees in windbreaks, and edges of remnant oak woodlands. In some locales, urban nest sites have been recorded. The breeding season is typically March to August (England et al. 2010).

White-Tailed Kite

The white-tailed kite (*Elanus leucurus*) is a fully protected species under FGC 3511. The species has a restricted distribution in the United States, occurring only in California and western Oregon and along the Texas coast. The species is common in California's Central Valley lowlands. Since the 1980s, many white-tailed kite populations have been declining, apparently because of loss of habitat and increased disturbance of nests (Dunk 1995).

The breeding season generally extends from early February through early August. White-tailed kites usually nest in large native trees, although nonnative trees also are used occasionally. Nest trees are generally at the edge of wooded habitat next to open fields. Large trees in developed areas also may be used, although the trees need to be close to open fields for foraging (Dunk 1995). White-tailed kites feed primarily on small mammals (Dunk 1995).

Western Burrowing Owl

The western burrowing owl is a California species of special concern. Western burrowing owls are year-round residents throughout much of California, especially in the Central Valley, San Francisco Bay region, Carrizo Plain, and Imperial Valley. Migrants from other parts of western North America can augment local populations in lowland areas in the winter (Shuford and Gardali 2008). The breeding season in California is February 1 to August 31 (California Department of Fish and Game 1995). Western burrowing owls prefer open, dry, short grassland habitats with few trees and often are associated with burrowing mammals such as California ground squirrels. They occupy burrows, typically abandoned by ground squirrels or other burrowing mammals, but also use artificial burrows such as abandoned pipes, culverts, and debris piles. Burrowing owls have adapted to landscapes that have been highly altered by human activity.

Prey includes arthropods, amphibians, small reptiles, and small mammals (Shuford and Gardali 2008).

Northern Harrier

The northern harrier (*Circus cyaneus*) is a California species of special concern. The northern harrier is a medium-sized hawk raptor of upland grasslands and fresh- and saltwater marshes. In California, northern harriers are permanent year-round residents of the San Joaquin Valley and in the area of the Pajaro River (Shuford and Gardali 2008). Northern harrier frequents meadows, grasslands, desert sinks, open rangelands, and fresh- and saltwater emergent wetlands; this species is seldom found associated with wooded habitats. Harriers feed mostly on voles and other small mammals, as well as birds, frogs, small reptiles, crustaceans, and insects; they occasionally feed on fish. This species mostly nests in emergent wetland or along rivers or lakes but may also nest in grasslands and grain fields several miles from water. Its nest is built of a large mound of sticks on wet areas and a smaller cup of grasses on dry sites. The breeding season extends from March through August (Shuford and Gardali 2008).

Tricolored Blackbird

The tricolored blackbird (*Agelaitus tricolor*) is a California species of special concern. Tricolored blackbirds are largely endemic to California, with more than 99% of the global population occurring in the state. In any given year, most of the largest colonies can be found in the Central Valley. Tricolored blackbird colonies require open, accessible water; a suitable nesting substrate; and open-range foraging habitat of natural grassland, woodland, or agricultural cropland (Beedy and Hamilton 1999). Tricolored blackbirds often nest in dense cattails or tules and in willow thickets, blackberry, California wild rose, and tall herbs. Nests usually are located a few feet above the water. Generally, nesting habitat is large enough to support a minimum of about 50 breeding pairs (Shuford and Gardali 2008).

Grasshopper Sparrow

The grasshopper sparrow (*Ammodramus savannarum*) is a California species of special concern. In California, grasshopper sparrows are summer residents from March to September. Grasshopper sparrows have been documented breeders at the Los Banos Wildlife Area and the species' nesting range includes the Coast Range in eastern Santa Clara County and western Merced County (Shuford and Gardali 2008). Grasshopper sparrow occurs in dry grasslands, especially those with a variety of grasses and forbs, and this species prefers moderately open grasslands with patchy bare ground and shrubs. Nests are built of grasses and forbs in a slight depression in the ground and often are concealed with overhanging grasses. Grasshopper sparrows feed primarily on the ground, where a large proportion of its diet includes grasshoppers, although its diet also includes seeds. Nests are built of grasses and forbs in a slight depression in the ground and often are concealed with overhanging grasses (Shuford and Gardali 2008).

Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is a California species of special concern. Loggerhead shrikes are a common year-round resident throughout the lowlands and foothills of California. Loggerhead shrikes prefer open habitats with shrubs, fences, utility poles and lines, or other perches. Breeding occurs in shrublands and open woodlands. Nests usually are hidden in dense-foliaged shrubs or trees. The breeding season is from March through August. While populations

in the Central Valley remain relatively high, populations have declined in the San Francisco Bay region, especially in the south bay where oak savanna habitat in the foothills has been lost (Schuford and Gardali 2008).

Mammals

San Joaquin Kit Fox

The San Joaquin kit fox (*Vulpes macrotis mutica*) is federally listed as endangered under ESA and is state-listed as threatened. Federal critical habitat for this species has not been designated. The historical range of San Joaquin kit fox included most of the San Joaquin Valley as well as low-elevation basins and ranges along the eastern side of the central Coast Ranges. By 1930, this range had been reduced by more than half, with the largest populations occurring in the southern and western portions of the San Joaquin Valley. Today, the San Joaquin kit fox occurs in the remaining native valley and foothill grasslands and chenopod scrub communities of the valley floor and surrounding foothills, from southern Kern County north to Los Banos, Merced County. Smaller, less dense populations may be found farther north and in the narrow corridor between I-5 and the Interior Coast Ranges from Los Banos to Contra Costa County. The San Joaquin kit fox's range also includes portions of Monterey, Santa Clara, and San Benito Counties (U.S. Fish and Wildlife Service 1998).

The San Joaquin kit fox inhabits a variety of habitats, including grasslands; scrublands; vernal pool areas; alkali meadows and playas; and agricultural irrigated pastures, orchards, and vineyards. They prefer habitats with loose-textured soils and are found primarily in arid grasslands and open scrublands that are suitable for digging, but they occur on virtually every soil type (U.S. Fish and Wildlife Service 1998). Dens generally are located in open areas with grass or grass and scattered brush, and seldom occur in areas with thick brush. Preferred sites are relatively flat, well-drained terrain. They are seldom found in areas with shallow soils resulting from high water tables or impenetrable bedrock or hardpan layers. However, kit fox may occupy soils with high clay content where they can modify burrows dug by other animals, such as ground squirrels (U.S. Fish and Wildlife Service 1998).

American Badger

The American badger (*Taxidea taxus*) is a California species of special concern. The species is found throughout the state except in the north coast region. Badgers are most abundant in drier areas with friable soils and sparse vegetation. Other fossorial (burrowing) animals often use burrows made by badgers. Badgers are carnivorous and prey on fossorial rodents, especially ground squirrels and pocket gophers, as well as reptiles, insects, earthworms, eggs, and carrion (White and Ahlborn 2010).

Pallid Bat

The pallid bat (*Antrozous pallidus*) is a California species of special concern. Pallid bats are found in a variety of habitats below elevations of 6,000 feet throughout California but have been recorded up to 10,000 feet in the Sierra Nevada. Pallid bats are associated with oak woodlands, ponderosa pine, mixed conifer, rock crevices, and giant sequoia habitats. Roosting has been documented in large conifer snags (e.g., ponderosa pine) inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks (Sherwin 1998). Pallid bats commonly roost under

bridges at night. Day roosts are more varied and include rock outcrops, tree hollows, buildings, bridges, caves, and mines. Roost temperatures are important and must be below 100°F. The pallid bat forages close to the ground, preying on large, ground-dwelling arthropods such as beetles, scorpions, and Jerusalem crickets.

Greater Mastiff Bat

The greater mastiff bat (*Eumops perotis*) is a California species of special concern. Western mastiff bats occur mostly in southern California but range as far north as Butte County. Distribution is tied to availability of suitable roosting habitat and sometimes can be predicated on the presence of significant rock features such as large granite or basalt formations (Jameson and Peeters 2004). Western mastiff bats are found in a variety of habitats, from desert scrub, to chaparral, to coniferous forests. Their day roosts are primarily on cliff faces, cracks in boulders, and occasionally buildings and trees. Western mastiff bats need vertical faces to drop from to take flight (Brown and Pierson 1996).

REGULATORY SETTING

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) protects fish and wildlife species and their habitats that have been identified by the USFWS as threatened or endangered. *Endangered* refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range. *Threatened* refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

The ESA is administered by the USFWS. Provisions of ESA Sections 7 and 9 are relevant to the general plan update and are summarized below.

Endangered Species Act Authorization Process for Federal Actions (Section 7)

Section 7 of the ESA provides a means for authorizing *take* of threatened and endangered species by federal agencies. Under Section 7, the federal agency conducting, funding, or permitting an action (the lead federal agency, such as the U.S. Army Corps of Engineers [USACE]) must consult with USFWS to ensure that the proposed action will not jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat. If a proposed project "may affect" a listed species or designated critical habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the expected effect. In response, USFWS issues a biological opinion, with a determination that the proposed action either:

- May jeopardize the continued existence of one or more listed species (*jeopardy finding*) or result in the destruction or adverse modification of critical habitat (*adverse modification finding*), or
- Will not jeopardize the continued existence of any listed species (*no jeopardy finding*) or result in adverse modification of critical habitat (*no adverse modification finding*).

The biological opinion issued by the USFWS may stipulate discretionary "reasonable and prudent" conservation measures. If the project would not jeopardize a listed species, the USFWS issues an incidental take statement to authorize the proposed activity.

Endangered Species Act Prohibitions (Section 9)

Section 9 of the ESA prohibits the take of any fish or wildlife species listed under the ESA as endangered. Take of threatened species also is prohibited under Section 9, unless otherwise authorized by federal regulations. In some cases, exceptions may be made for threatened species under ESA Section 4[d]; in such cases, the USFWS issues a "4[d] rule" describing protections for the threatened species and specifying the circumstances under which take is allowed. *Take*, as defined by ESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct". *Harm* is defined as "any act that kills or injures the species, including significant habitat modification". In addition, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction.

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

The CWA empowers the Environmental Protection Agency (EPA) to set national water quality standards and effluent limitations and includes programs addressing both point-source and nonpoint-source pollution. Point-source pollution is pollution that originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Nonpoint-source pollution originates over a broader area and includes urban contaminants in stormwater runoff and sediment loading from upstream areas. The CWA operates on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit; permit review is the CWA's primary regulatory tool. The following sections provide additional details on specific sections of the CWA.

Permits for Fill Placement in Waters and Wetlands (Section 404)

CWA 404 regulates the discharge of dredged and fill materials into waters of the United States. Waters of the United States refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands, including:

- Areas within ordinary high-water mark (OHWM) of a stream, including nonperennial streams with a defined bed and bank and any stream channel that conveys natural runoff, even if it has been realigned; and
- Seasonal and perennial wetlands, including coastal wetlands.

On January 9, 2001, the U.S. Supreme Court made a decision in Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers (SWANCC), 121 S.CT. 675, 2001, that affected USACE jurisdiction in isolated waters. Based on SWANCC, the USACE no longer has

jurisdiction or regulates isolated wetlands (i.e., wetlands that have no hydrologic connection with a water of the United States).

A June 19, 2006 federal ruling on two consolidated cases (Rapanos v. United States and Carabell v. U.S. Army Corps of Engineers), often referred to as the Rapanos decision, affects whether adjacent waters or wetlands are considered jurisdictional under the CWA. The directive of the court follows the opinion by Justice Anthony Kennedy, which states that the test for waters of the United States should be determined on a case-by-case basis by USACE on the basis of whether a particular water body has "significant nexus" to navigable waters.

In response to the issues of this court ruling, the USACE and the U.S. EPA issued a joint regulatory guidance memorandum (Rapanos Guidance) (U.S. Environmental Protection Agency and Department of the Army 2007). The USACE also created a jurisdictional determination form and guidebook (JD Guidebook) (U.S. Army Corps of Engineers 2007) that provides guidance on determining significant nexus of a wetland or water.

Applicants must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States, including adjacent wetlands, before proceeding with a proposed activity. The USACE may issue either an individual permit evaluated on a case-by-case basis or a general permit evaluated at a program level for a series of related activities. General permits are preauthorized and are issued to cover multiple instances of similar activities expected to cause only minimal adverse environmental effects. Nationwide permits (NWPs) are a type of general permit issued to cover particular fill activities. Each NWP specifies particular conditions that must be met for the NWP to apply to a particular project. Potential waters of the United States in the project area would be under the jurisdiction of the Sacramento District of the USACE.

Compliance with CWA 404 requires compliance with several other environmental laws and regulations. The USACE cannot issue an individual permit or verify the use of a general permit until the requirements of the National Environmental Policy Act (NEPA), ESA, and NHPA have been met. In addition, the USACE cannot issue or verify any permit until a water quality certification or a waiver of certification has been issued pursuant to CWA 401.

Permits for Stormwater Discharge (Section 402)

CWA 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the EPA. In California, the State Water Resources Control Board is authorized by the EPA to oversee the NPDES program through the Regional Water Quality Control Boards (RWQCBs) (see the related discussion under "Porter-Cologne Water Quality Control Act" below). The project corridor and vicinity are under the jurisdiction of the Central Valley RWQCB.

NPDES permits are required for projects that disturb more than 1 acre of land. The NPDES permitting process requires the applicant to file a public notice of intent (NOI) to discharge stormwater and prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities. In addition, it describes the best management practices (BMPs) that will be implemented to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, and cement) that could contaminate nearby water resources. Permittees are required to conduct

annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

Water Quality Certification (Section 401)

Under CWA 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a CWA 404 permit) also must comply with CWA Section 401.

Executive Order 13186 (Federal Migratory Bird Treaty Act)

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code 703–711) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the act, take is defined as the action of or attempt to "pursue, hunt, shoot, capture, collect, or kill". This act applies to all persons and agencies in the United States, including federal agencies.

Executive Order 13186 for conservation of migratory birds (January 11, 2001) requires any project with federal involvement to address the impacts of federal actions on migratory birds. The order is designed to assist federal agencies in their efforts to comply with the MBTA and does not constitute any legal authorization to take migratory birds. The order also requires federal agencies to work with the USFWS to develop a memorandum of understanding (MOU). Protocols developed under the MOU must promote the conservation of migratory bird populations through:

- Avoiding and minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- Restoring and enhancing the habitat of migratory birds, as practicable; and
- Preventing or abating the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

Executive Order 11990: Protection of Wetlands

Executive Order (EO) 11990, signed May 24, 1977, directs all Federal agencies to refrain from assisting in or giving financial support to projects that encroach on publicly or privately owned wetlands. It further requires that Federal agencies support a policy to minimize the destruction, loss, or degradation of wetlands.

Executive Order 13112: Invasive Species

EO 13112, signed February 3, 1999, directs all Federal agencies to prevent and control the introduction of invasive species in a cost-effective and environmentally sound manner. The EO requires consideration of invasive species in NEPA analyses, including their identification and distribution, their potential effects, and measures to prevent or eradicate them.

State Regulations

California Environmental Quality Act

CEQA is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. A project normally is considered to result in a significant environmental impact on biological resources if it substantially affects a rare or endangered species or the habitat of that species, substantially interferes with the movement of resident or migratory fish or wildlife, or substantially diminishes habitat for fish, wildlife, or plants. The State CEQA Guidelines define rare, threatened, or endangered species as those listed under the California Endangered Species Act (CESA) and ESA, as well as any other species that meets the criteria of the resource agencies or local agencies (e.g., the DFW-designated "species of special concern" and CNPS-listed species). The effects of a proposed project on these resources are important in determining whether the project has significant environmental impacts under CEQA.

California Endangered Species Act

California implemented CESA in 1984. The act prohibits the take of endangered and threatened species; however, habitat destruction is not included in the state's definition of take. Under CESA, take is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include harm or harassment. Section 2090 of CESA requires state agencies to comply with endangered-species protection and recovery and promote conservation of these species. The DFW administers the act and authorizes take through Section 2081 agreements (except for species designated as fully protected). Regarding rare plant species, CESA defers to the California Native Plant Protection Act of 1977, which prohibits importing rare and endangered plants into California, taking rare and endangered plants, and selling rare and endangered plants. State-listed plants are protected mainly in cases where state agencies are involved in projects under CEQA. In these cases, plants listed as rare under the California Native Plant Protection Act are not protected under CESA but can be protected under CEQA.

Porter-Cologne Water Quality Control Act

Water Code Section 13260 requires "any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)". Under the Porter-Cologne definition, the term waters of the state is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state". The SWANCC ruling and Rapanos decision, described above, have no bearing on the Porter-Cologne definition. Although all waters of the United States that are within the borders of California are also waters of the state, the converse is not true (i.e., in California, waters of the United States represent a subset of waters of the state). Thus, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether the USACE has concurrent jurisdiction under CWA 404.

If the USACE determines a wetland is not subject to regulation under CWA 404, CWA 401 water quality certification is not required. However, the RWQCB may impose waste discharge requirements (WDRs) if fill material is placed into waters of the state.

California Fish and Game Code

Section 1602

Under Section 1602 of the California Fish and Game Code, public agencies are required to notify the DFW before undertaking any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review occur generally during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, the DFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a streambed-alteration agreement that becomes part of the plans, specifications, and bid documents for the project.

Sections 3503 and 3503.5

Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests.

Section 3511 (Fully Protected Birds)

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 3511 lists fully protected birds and prohibits take of these species. The California Fish and Game Code defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". Except for take related to scientific research, all take of fully protected species is prohibited.

California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was enacted in 2001 to protect oak woodland habitats that were being diminished due to development, firewood harvesting, and agricultural conversions. The Oak Woodlands Conservation Program was established as a result of the act and is intended to provide project funding opportunities for private landowners, conservation organizations, and cities and counties to conserve and restore oak woodlands. The program authorizes the Wildlife Conservation Board to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts. The Planning Area contains a large stand of California Valley Oak Woodland and also contains scattered oak woodland stands that have been preserved throughout the City.

Local Regulations

City of Visalia Oak Tree Ordinance

The City of Visalia has an oak tree ordinance that protects valley oak trees with a diameter at breast height (dbh) of 2 inches or greater. Under this ordinance, removal or encroachment within the drip-line of or damage to valley oak trees is prohibited. Removal requires a permit from the city manager and mitigation either by replacement in-kind or payment of an in-lieu fee to be used for oak tree planting.

Impact Analysis

SIGNIFICANCE CRITERIA

The following significance criteria are based on Appendix G of the State CEQA Guidelines. Implementation of the proposed General Plan would have a potentially significant impact if it could:

Criterion 1: 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 Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Criterion 2: 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 Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Criterion 3: 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.

Criterion 4: 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.

Criterion 5: Conflict with the provisions of any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Criterion 6: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

METHODOLOGY AND ASSUMPTIONS

Impacts related to biological resources were evaluated qualitatively based on available information. Impact analysis relied on published biological resources information. Potential impacts resulting from implementation of the proposed Visalia General Plan were evaluated based on a review of the following data sources:

Existing resource information and aerial photographs of the Planning Area.

Data presented in the CNDDB, CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California, and USFWS species list (2012) for the Cairns Corner, Tulare, Paige, Ivanhoe, Exeter, Monson, Traver, Goshen, and Visalia USGS 7.5-minute topographic quadrangles, which include the Planning Area and vicinity.

Available literature regarding the natural resources of the area.

No new field studies or other research were conducted for the preparation of this EIR. Based on a review of relevant maps and biological resources documentation for the City of Visalia, this EIR presents a list of special-status species that had the potential to occur in the Planning Area, due to the presence of the basic habitat types that they inhabit. There are no applicable adopted habitat conservation plans in the Planning Area; therefore, this impact is not discussed further.

IMPACT SUMMARY

Potential Project Impact	*Mitigation Measure*	*Significance after Mitigation*
Impact 3.8-1: Implementation of the Visalia General Plan could result in negative effects, either directly or through habitat modifications on special-status species.	None required	Less than significant
Impact 3.8-2: Implementation of the Visalia General Plan could adversely affect riparian habitat and/or other sensitive natural communities in the Plan Area.	None required	Less than significant
Impact 3.8-3: Implementation of the Visalia General Plan could adversely affect protected wetlands and other waters.	None required	Less than significant
Impact 3.8-4: Implementation of the Visalia General Plan could interfere with the movement of wildlife species.	None required	Less than significant
Impact 3.8-5: Implementation of the Visalia General Plan could have the potential to conflict with local policies or ordinances protecting biological resources.	None required	Beneficial
Impact 3.8-6: Implementation of the Visalia General Plan in conjunction with other past, present, pending and reasonably foreseeable development could result in cumulative adverse impacts on special-status species, or Other Waters of the United States, including wetlands.	None required	Less than significant

IMPACTS AND MITIGATION MEASURES

Impact

3.8-1 Implementation of the Visalia General Plan could result in negative effects, either directly or through habitat modifications, on special-status species. (*Less than Significant*)

Future development with the Plan Area has potential to affect special-status species or their habitats. A number of special-status plant and wildlife species have moderate to high potential to occur in the Plan Area (see Appendix C). Five special-status plants have moderate to high potential to occur in natural communities in the Plan Area--California satintail (*Imperata brevifolia*) in riparian scrub communities and heartscale (*Atriplex cordulata* var. *cordulata*), Earlimart orache (*A. cordulata* var. *erecticaulis*), brittlescale (*A. depressa*), and subtle orache (*A. subtilis*) in alkaline annual grassland communities. One plant species, lesser saltscale (*A. minuscula*), is known to occur in alkali grassland in Goshen.

Vernal pools and seasonal wetlands that occur within the Plan Area provide suitable habitat for a number of special-status wildlife species, including vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot, and waterways have potential to support western pond turtle.

Some nesting birds have adapted to urbanized areas and can be found utilizing trees, shrubs, or even buildings for nesting habitat. Other species of birds are more sensitive and tend to utilize less disturbed areas. The forested riparian corridors associated with St. Johns River and other drainages are ideal habitat for nesting birds and raptors. Most migratory birds, their nests, and their eggs are protected under the Migratory Bird Treaty Act and California Fish and Wildlife Code Section 3503 prohibits the destruction of nests or eggs of most bird species, including all raptors. Destruction of active nests or overt interference with nesting activities is prohibited.

San Joaquin kit fox and American badger could utilize the grassland areas within the Plan Area. But because of the amount of development and agriculture and the small sizes of the grasslands within the Plan Area, Kit foxes and badgers would likely be unable to persist in the Plan Area but would move through the Plan Area between more suitable areas to the north and south of the Plan Area.

Development under the Visalia General Plan could have direct and indirect effects on special-status species through removal of or disturbance to habitat. These effects would be considered significant.

Proposed General Plan Policies that Reduce Impact

The City has proposed the following General Plan goals and policies to reduce the potential for impacts on the special-status species considered most likely to occur in the Plan Area.

OSC-O-1 Create and protect open space for the preservation of natural resources.

OSC-O-10 Protect and enhance natural vegetation throughout the Planning Area, especially types that are considered sensitive natural communities by the Department of Fish and Wildlife.

OSC-P-8 Protect, restore and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. Johns River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.

OSC-P-9 Protect and enhance plant and wildlife habitat at the designated Conservation/Open Space area around the confluence of Mill Creek and Evans Ditch, and promote use of this area as an interpretive center for education and research.

OSC-P-21 Place special emphasis on the protection and enhancement of the St. Johns River Corridor by establishing extensive open space land along both sides.

OSC-P-26 *Establish Best Management Practices (BMPs) for control of invasive plant species where such plants could adversely impact wildlife habitat.

OSC-P-27 Establish a "no net loss" standard for sensitive habitat acreage, including wetlands and vernal pools potentially affected by development.

OSC-P-28 Protect significant stands of Valley Oaks woodlands from further development by designating them for Conservation, creating habitat management plans, where needed, and undertaking restoration activities as appropriate.

OSC-P-29 Update the Zoning Ordinance to implement the Conservation land use designation on the Land Use Diagram.

OSC-P-30 Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and other agencies.

OSC-P-31 Protect and enhance habitat for special status species, designated under state and federal law. Require protection of sensitive habitat areas and special status species in new development in the following order: 1) avoidance; 2) onsite mitigation, and 3) offsite mitigation.

OSC-P-36 Prepare a comprehensive habitat management plan for areas designated as Conservation in order to take advantage of opportunities for habitat enhancement, restoration, and urban forest development and resource conservation.

OSC-P-38 Revise the City's Valley Oak Ordinance to include cottonwood groves and other mature native trees, and update the map of landmark trees and distinctive biotic areas.

With full implementation of these new General Plan policies through the development review and permitting processes, impacts on special-status species are expected to be less than significant.

Mitigation Measures

None required.

Impact

3.8-2 Implementation of the Visalia General Plan could adversely affect riparian habitat and/or other sensitive natural communities in the Plan Area. *(Less than Significant)*

Future development within the Plan Area has the potential to affect sensitive natural communities that occur in the Plan Area, including valley oak woodland and valley oak riparian woodland. Development under the Visalia General Plan could have direct and indirect effects on valley oak woodland and valley oak riparian woodland through removal of or disturbance to vegetation in these communities. These effects would be considered significant.

Proposed General Plan Policies that Reduce Impact

The City has proposed the following General Plan goals and policies to reduce the potential for impacts on valley oak woodland and valley oak riparian woodland in the Plan Area.

OSC-O-1 Create and protect open space for the preservation of natural resources.

OSC-P-7 Maintain active contact with organizations, such as the Sequoia Riverlands Trust and other appropriate agencies, regarding additions to the Kaweah Oaks Preserve, programs at Mooney or Cutler parks and acquisition of new open space sites throughout the area.

OSC-O-7 Preserve and enhance Planning Area waterways and adjacent corridors as valuable community resources which serve as plant and wildlife habitats, as groundwater recharge facilities, as flood control and irrigation components, and as connections between open space areas.

OSC-P-8 Protect, restore and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. Johns River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.

OSC-P-19 Establish easements or require dedication of land along waterways to protect natural habitat areas, allow maintenance operations and promote trails and bike paths.

OSC-P-21 Place special emphasis on the protection and enhancement of the St. Johns River Corridor by establishing extensive open space land along both sides.

OSC-P-23 Where no urban development exists, maintain minimum riparian habitat development setback from the discernible top of the bank—50 feet for both sides of the Mill, Packwood and Cameron Creek corridors and 25 feet for both sides of Modoc, Persian and Mill Creek Ditches—provided that where riparian trees are located within 100 feet of the discernible top of the banks of the Creek corridors and 50 from the banks for the ditches, the setback shall be wide enough to include five feet outside the drip line of such trees. Restore and enhance the area within the setback with native vegetation.

a. Where existing development or land committed to development prohibits the 50 foot setback on Mill, Packwood and Cameron Creek corridors, provide the maximum amount of land available for a development setback

b. Where existing development or land committed to development prohibits the 25 foot setback along Modoc, Persian, and Mill Creek Ditches, provides the maximum amount of land available for a development setback.

OSC-O-10 Protect and enhance natural vegetation throughout the Planning Area, especially types that are considered sensitive natural communities by the Department of Fish and Wildlife.

OSC-P-26 *Establish Best Management Practices (BMPs) for control of invasive plant species where such plants could adversely impact wildlife habitat.

OSC-P-28 Protect significant stands of Valley Oaks woodlands from further development by designating them for Conservation, creating habitat management plans, where needed, and undertaking restoration activities as appropriate.

OSC-P-29 Update the Zoning Ordinance to implement the Conservation land use designation on the Land Use Diagram.

OSC-P-30 Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and other agencies.

OSC-P-31 Protect and enhance habitat for special status species, designated under state and federal law. Require protection of sensitive habitat areas and special status species in new development in the following order: 1) avoidance; 2) onsite mitigation, and 3) offsite mitigation.

OSC-P-32 Develop riparian planting and maintenance standards, and incorporate these standards into conservation area management plans.

OSC-P-38 Revise the City's Valley Oak Ordinance to include cottonwood groves and other mature native trees, and update the map of landmark trees and distinctive biotic areas.

With full implementation of these new General Plan policies through the development review and permitting processes, impacts on valley oak woodland and valley oak riparian woodland are expected to be less than significant.

Mitigation Measures

None required.

Impact

3.8-3 Implementation of the Visalia General Plan could adversely affect protected wetlands and other waters. ***(Less than Significant)***

Future development with the Plan Area has potential to affect protected wetlands and other waters that occur in the Plan Area, including freshwater marshes, seasonal wetlands, vernal pools, open water, and drainages. Development under the Visalia General Plan could have direct and

indirect effects on wetlands and other waters through removal of or disturbance to vegetation in these communities. These effects would be considered significant.

Proposed General Plan Policies that Reduce Impact

The City has proposed the following General Plan goals and policies to reduce the potential for impacts on protected wetlands and other waters in the Plan Area.

OSC-O-1 Create and protect open space for the preservation of natural resources.

OSC-O-7 Preserve and enhance Planning Area waterways and adjacent corridors as valuable community resources which serve as plant and wildlife habitats, as groundwater recharge facilities, as flood control and irrigation components, and as connections between open space areas.

OSC-P-8 Protect, restore and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. Johns River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.

OSC-P-9 Protect and enhance plant and wildlife habitat at the designated Conservation/Open Space area around the confluence of Mill Creek and Evans Ditch, and promote use of this area as an interpretive center for education and research.

OSC-P-14 *Establish design and development standards for new development in waterway corridors to preserve and enhance irrigation capabilities, if provided, and the natural riparian environment along these corridors. In certain locations or where conditions require it, alternative designs such as terraced seating or a planted wall system may be appropriate.

OSC-P-19 Establish easements or require dedication of land along waterways to protect natural habitat areas, allow maintenance operations and promote trails and bike paths.

OSC-O-10 Protect and enhance natural vegetation throughout the Planning Area, especially types that are considered sensitive natural communities by the Department of Fish and Game.

OSC-P-26 *Establish Best Management Practices (BMPs) for control of invasive plant species where such plants could adversely impact wildlife habitat.

OSC-P-27 *Establish a "no net loss" standard for sensitive habitat acreage, including wetlands and vernal pools potentially affected by development.

OSC-P-29 Update the Zoning Ordinance to implement the Conservation land use designation on the Land Use Diagram.

OSC-P-30 Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and other agencies.

OSC-P-31 Protect and enhance habitat for special status species, designated under state and federal law. Require protection of sensitive habitat areas and special status species in new development in the following order: 1) avoidance; 2) onsite mitigation, and 3) offsite mitigation.

With full implementation of these new General Plan policies through the development review and permitting processes, impacts on sensitive protected wetlands and other waters are expected to be less than significant.

Mitigation Measures

None required.

Impact

3.8-4 Implementation of the Visalia General Plan could interfere with the movement of wildlife species. *(Less than Significant)*

While most of the Plan Area is either heavily developed or is agricultural lands, perennial and ephemeral drainages in the Plan Area represent important wildlife corridors connecting riparian woodlands with undeveloped lands within the Plan Area. The General Plan includes the following policies that could increase in human activity and potential for increased presence of pet and feral cats and dogs within valley oak riparian woodlands in the Plan Area and thus could have potentially significant adverse effects on important wildlife movement corridors. These include:

OSC-P-11 *Create incentives for new development along waterways to include pocket parks, patios or plazas that front onto the creek corridor as an amenity to residential occupants or visitors to commercial developments.

OSC-P-12 *Where new development is proposed adjacent to a waterway within an established urban area, require public access be provided to creekside and waterway trails, and that trails be dedicated, improved and maintained, consistent with an updated Waterways and Trails Master Plan.

Provisions for hearings and granting requests for exemptions from these public access and dedication requirements also should be included in the implementing ordinances.

OSC-P-13 *In new neighborhoods that include waterways, improvement of the waterway corridor, including preservation and/or enhancement of natural features and development of a continuous waterway trail on at least one side, shall be required.

The Plan will include a diagram of a waterway trail section showing landscaped buffers on both sides; and multi-use paths and public space. These elements could be part of each new waterway corridor but may vary in width and occur in certain locations but not all.

Proposed General Plan Policies that Reduce Impact

To mitigate for the potential of significant impacts to the movement of wildlife species, the proposed General Plan has proposed the following policies to reduce the potential for impacts wildlife movement corridors.

OSC-O-1 Create and protect open space for the preservation of natural resources.

OSC-O-5 Create open space to shape Visalia's future urban form, including conservation corridors along the St. Johns River and along Highway198.

OSC-O-7 Preserve and enhance Planning Area waterways and adjacent corridors as valuable community resources that serve as plant and wildlife habitats, as groundwater recharge facilities, as flood control and irrigation components, and as connections between open space areas.

OSC-P-2 Develop open space corridors along selected community waterways, power transmission line right-of-ways and abandoned railroad right-of-ways to serve as links between park and recreation facilities.

OSC-P-3 Maintain open space around the Visalia Municipal Airport to minimize incompatible land uses.

OSC-P-4 Maintain open space around the Visalia Regional Waste Water Treatment plant to minimize public health concerns and land use conflicts.

OSC-P-8 Protect, restore and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. Johns River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.

OSC-P-9 Protect and enhance plant and wildlife habitat at the designated Conservation/Open Space area around the confluence of Mill Creek and Evans Ditch, and promote use of this area as an interpretive center for education and research.

OSC-P-21 Place special emphasis on the protection and enhancement of the St. Johns River Corridor by establishing extensive open space land along both sides.

With full implementation of these new General Plan policies through the development review and permitting processes, impacts on wildlife movement corridors are expected to be less than significant.

Mitigation Measures

None required.

Impact

3.8-5 Implementation of the Visalia General Plan could have the potential to conflict with local policies or ordinances protecting biological resources. ***(Beneficial)***

The proposed General Plan would require the existing oak tree ordinance to be revised as described in the following policy. This effect would be considered beneficial.

OSC-P-38 Revise the City's Valley Oak Ordinance to include cottonwood groves and other mature native trees, and update the map of landmark trees and distinctive biotic areas.

Implementation of this new General Plan policy would further augment tree protection under the ordinance and would not conflict with the existing ordinance; therefore, this impact would be beneficial, and no mitigation would be necessary.

Mitigation Measures

None required.

Cumulative Impacts

3.8-6 Implementation of the Visalia General Plan in conjunction with other past, present, pending and reasonably foreseeable development could result in cumulative adverse impacts on special-status species, wetlands, or other waters of the United States. ***(Less than Significant)***

Tulare County's population is expected to increase in coming years, which could result in a decrease in habitat for native flora and fauna, increased indirect effects such as noise disturbance, increased night lighting, harassment from pets, increased mortality from automobiles, and increased fragmentation of habitat. Visalia contains habitat for several special-status plants, invertebrate, amphibian, reptile and mammal species, and will experience population growth, which has the potential to cause the loss of sensitive habitat areas. As the region continues to grow, these losses will increase in importance as natural habitat areas become scarcer. These habitat losses can cause cumulative adverse impacts on special-status species and protected wetlands and other waters that occur in the region.

This analysis evaluates whether the impacts of development under the proposed Plan, together with the impacts of other development, would result in a cumulatively significant impact on special-status species, wetlands and other waters of the U.S., or other biological resources protected by federal, state, or local regulations or policies (based on the significance criteria and thresholds presented earlier). It then considers whether the incremental contribution of the proposed Plan to this cumulative impact would be considerable. Both conditions must apply in order for a project's cumulative effects to rise to the level of significance. The geographic context

for analysis of cumulative impacts to biological resources includes sites within and adjacent to the Planning Area.

Actions undertaken under the proposed General Plan, and other future projects within the cumulative geographic context, would be required to comply with local, State, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources, including wetlands, other waters of the U.S., and special-status species.

The City's process for the evaluation of discretionary projects includes environmental review and documentation pursuant to CEQA, as well as analysis of those projects for consistency with the goals, policies and recommendations of the General Plan. In general, implementation of the proposed General Plan policies (as outlined in the impact analyses above) and compliance with federal, state, and local regulations would preclude incremental biological resources impacts. However, for some projects it is possible that adherence to regulations may not adequately avoid or reduce incremental impacts, and such projects would require additional measures.

Future discretionary projects proposed under the proposed General Plan would be required to protect sensitive habitat areas and special status species and demonstrate that they will not have significant effects on these biological resources, although it is possible that some projects may be approved despite having significant and unavoidable impacts on biological resources. However, with implementation of proposed General Plan policies and adherence to existing regulatory requirements protecting biological resources, the cumulative contribution of the proposed General Plan is less than cumulatively considerable.

Mitigation Measures

None required.