4.8 BIOLOGICAL RESOURCES

4.8.1 INTRODUCTION

This section addresses known or potential biological resources in the Planning Area associated with the proposed General Plan Update. To provide context for the impact analysis, this section begins with an environmental setting describing the existing conditions in the Planning Area related to biological resources. Next, the regulatory framework is described, which informs the selection of the significance thresholds used in the impact analysis. The regulatory framework also includes existing General Plan policies related to the impact analysis of this section. The section concludes with the applicable significance thresholds, the impacts of the proposed changes to adopted General Plan policies, recommended mitigation measures, and the significance conclusions.

As part of the impact analysis, Notice of Preparation (NOP) comments were reviewed to help guide the analysis. One NOP comment letter was received from the California Department of Fish and Wildlife (CDFW). Comments from the CDFW included suggestions for analyses that should be included in the DEIR, including an assessment of the flora and fauna; identification of impacts to rare, threatened, endangered, and other sensitive species and their habitats; and the inclusion of appropriate avoidance, minimization, or mitigation measures. The City reviewed and considered this information during preparation of this section.

This proposed General Plan Update does not include any changes to land use designations, expansion to the City’s Planning Area, or other physical changes to areas planned for development compared to the existing General Plan, but does include changes to goals and policies, which are analyzed in this EIR.

The biological resources information presented in this section is based on review of the following sources: previous studies conducted for the West Roseville, Sierra Vista, Creekview, and Amoruso Ranch Specific Plan Areas and associated EIRs (City of Roseville 2004, 2010, 2011a, and 2016); a comment letter received from CDFW in response to the NOP (CDFW 2019a); biological resource databases, including the United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC) (USFWS 2019a), USFWS Critical Habitat Mapper (USFWS 2019b), USFWS National Wetlands Inventory (NWI) Wetlands Mapper (USFWS 2019c), the California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS) (CDFW 2019a), and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2019a); aerial photography interpretation; and the draft Western Placer County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) (PCCP 2018).

4.8.2 ENVIRONMENTAL SETTING

The Planning Area is located along the eastern edge of the Central California Valley ecoregion, which is defined by an underlying geomorphology of alluvial fans and terraces (Griffith, et al. 2016). The region features flat, intensively farmed plains and large areas of urban development. Soils are characterized predominantly by sandy and cobbly loam that is often underlain by a cemented silica hardpan (NRCS 2019). The topography of the Planning Area slopes gently upward from west to east, with elevations ranging from approximately 100 feet in the southwest to approximately 400 feet in the northeast. The Planning Area is located within portions of four watersheds: Pleasant Grove Creek, Dry Creek, Curry Creek, and Steelhead Creek (see Exhibit 4.13-1 in Chapter 4.13, “Hydrology and Water Quality”). These watersheds include numerous creeks and ravines that traverse the Planning Area from east to west, providing wildlife habitat and movement corridors, as well as flood water storage and conveyance across the Planning Area.
Surrounding regional land uses include rice fields and other agriculture to the north and west, and extensive urban development to the east and south, including the cities of Rocklin, Citrus Heights, and Sacramento. Although most of the land within the city limits is urbanized, the Planning Area includes numerous undeveloped properties and a network of designated open spaces and parks that are maintained by the City. Parks and other open spaces within the City’s urban settings provide habitat for several native plant and wildlife species. However, diversity and abundance are generally lower compared to natural habitats, which generally are not present within the Planning Area, except for in open space preserves. There are 32 City-owned open space preserves in the Planning Area, all governed by the City of Roseville’s Open Space Preserve Operations and Management Plan (City of Roseville 2011b) and encompasses a total area of approximately 1,992 acres. In addition, there are at least three privately-owned preserves funded by homeowners’ associations that protect another 15 acres of open space habitat in the Planning Area. The City-owned preserves tend to be associated with vernal pool and riparian/wetland areas adjacent to the various creeks and drainages that traverse the Planning Area, serving to protect natural vegetation, wildlife habitat, and movement corridors amidst urban development (Exhibit 4.8-1). Several preserves also protect special-status species, including the federally-threatened vernal pool fairy shrimp (Branchinecta lynchi) and valley elderberry longhorn beetle (Desmocerus californicus dimorphus)¹ (City of Roseville 2011b). City-owned preserves average approximately 66 acres in size (City of Roseville 2011b). The West Roseville Specific Plan Preserve is the largest preserve in the Planning Area, encompassing 737 acres that connect to, and overlap with the USFWS Vernal Pool Recovery Plan Western Placer County Core Area (USFWS 2005), as well as the western extents of Pleasant Grove Creek and Kaseburg Creek, including adjacent grassland and oak woodland habitats. Another large preserve in the Planning Area is the 227-acre Reason Farms Environmental Preserve (designated for Open Space land use) located in the northwestern portion of the Planning Area, owned by the City of Roseville and managed by the Placer Land Trust to maintain and restore grassland, oak woodland, riparian, and vernal pool habitat (PLT 2019). The approximately 1,518-acre Al Johnson Wildlife Area consists of agricultural fields. This area is designated for Public/Quasi Public land uses and is planned to include two large regional stormwater detention basins in the future.

Agricultural lands are concentrated in the northwestern portion of the Planning Area and consist primarily of dryland farming, including hay fields and row crops, in addition to some irrigated pasture. Agricultural land provides important habitat value for certain wildlife species, including foraging habitat for Swainson’s hawk (Buteo swainsoni), a state-listed threatened species, and white-tailed kite (Elanus leucurus), a CDFW fully-protected species.

Extensive undeveloped areas surround the Planning Area to the north and west contain sensitive habitats and special-status species associated with agricultural land, annual grassland, waterways, and wetlands. Many of the sensitive biological resources described in more detail below are found in these areas. For example, the Toad Hill Ranch Mitigation Bank immediately north of the Planning Area includes 1,630 acres of wetland mitigation lands, including preserved and constructed vernal pools, with habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp (Lepidurus packardi), and Swainson’s hawk (Wildlands 2019).

¹ City-owned preserves known to support vernal pool fairy shrimp are: Highland Reserve South/Heritage at Diamond Oaks; Silverado Oaks Urban Reserve; West Roseville Specific Plan; Woodcreek North; and Woodcreek West preserves. The Stoneridge Cavitt Ranch/Vista Oaks preserve supports valley elderberry longhorn beetle (City of Roseville 2011).
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4.8.2.1 COMMON HABITAT TYPES IN THE PLANNING AREA

Almost 64 percent of the approximately 29,038-acre Planning Area is currently urban and 5 percent is in agricultural use (Table 4.8-1). Mapped annual grassland habitats, vernal pool complexes, and open water habitats cover approximately 20 percent of the Planning Area. Other habitat types represent approximately seven percent of the total acreage. Habitat types in the Planning Area are shown in Exhibit 4.8-1.

<table>
<thead>
<tr>
<th>Table 4.8-1 Habitat Types in the Planning Area</th>
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<tbody>
<tr>
<td>Habitat</td>
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<td>-----------------------------------------</td>
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<tr>
<td>Urban</td>
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<tr>
<td>Row Crops/Hay Fields</td>
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<tr>
<td>Irrigated Pasture</td>
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<tr>
<td>Annual Grassland</td>
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<tr>
<td>Open Water/Creeks</td>
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<tr>
<td>Oak Woodland/Savannah</td>
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<tr>
<td>Riparian Forest/Wetlands</td>
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<tr>
<td>Vernal Pool Complex</td>
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<td><strong>Total</strong></td>
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Sources: City of Roseville 2019, DWR 2019; compiled by AECOM 2019.

Urban

Urban land cover consists of developed lands that are highly modified by humans, and that generally support little to no native plant species. Vegetation in developed areas is generally limited to horticultural landscaping, such as turf grass and ornamental trees and shrubs in maintained areas and weedy vegetation in areas that are subject to frequent ground disturbance. The majority of the Planning Area is developed, encompassing approximately 19,655 acres of urban land cover.

Agricultural Lands

Agricultural lands are comprised of active row crops, hay fields, and wheat fields concentrated in the northwestern portion of the Planning Area and are subject to regular mechanical disturbance associated with the practices of tillage and crop harvest. Native biodiversity within agricultural lands is generally low because cropland is managed with the goal of producing monotypic vegetation. In addition, ruderal non-native vegetation often occurs along the edges of fields, berms, and roadsides that are subject to frequent ground disturbance, such as regular vegetation clearing with the use of herbicide. Agricultural ditches and drainages sometimes support wetland species and riparian vegetation. The Planning Area has approximately 1,336 acres of agricultural lands.

Irrigated Pasture

Irrigated pasture is commonly dominated by forage grass species, including Bermuda grass (*Cynodon dactylon*), tall flatsedge (*Cyperus eragrostis*), and Kentucky fescue (*Festuca arundinacea*) (City of Roseville 2016). Irrigated pasture lands are limited to approximately 103 acres in the northern portion of the Planning Area.
Annual Grasslands

Scattered parcels of annual grasslands are found throughout the Planning Area amidst developed lands, typically in association with open space, public lands, and vacant lots. Larger tracts of annual grasslands are concentrated in the western portion of the Planning Area adjacent to and overlapping agricultural lands and open space preserves. Grasslands in the Planning Area are generally subject to some level of periodic maintenance or other type of disturbance, such as diskng, mowing, and grazing by cattle or other domestic animals. As a result, they are dominated by nonnative grasses, including foxtail barley (*Hordeum murinum*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneaum*), ripgut brome (*Bromus diandrus*), soft chess brome (*Bromus hordeaceous*), Italian rye grass (*Festuca perennis*), and wild oats (*Avena fatua*, *A. barbata*). Commonly observed forbs in annual grassland include nonnative species such as cutleaf geranium (*Geranium dissectum*) and redstem filaree (*Erodium cicutarium*), and native wildflowers such as valley tassels (*Castilleja attenuata*), tarplant (*Holocarpha virgata*), and California poppy (*Eschscholzia californica*). The Planning Area has approximately 3,549 acres of annual grasslands.

Grassland habitat tends to support a modest diversity of wildlife species, including small mammals, such as California ground squirrel (*Spermophilus beecheyi*), western harvest mouse (*Reithrodontomys megalotis*), California vole (*Microtus californicus*), black-tailed jackrabbit (*Lepus californicus*), deer mouse (*Peromyscus maniculatus*), and Botta’s pocket gopher (*Thomomys bottae*) that provide a prey base for raptors and other predators, such as as northern harrier (*Circus hudsonius*), red-tailed hawk (*Buteo jamaicensis*), Swainson’s hawk, white-tailed kite, gopher snake (*Pituophis catenifer*), western rattlesnake (*Crotalus viridus*), and coyote (*Canis latrans*). Grasslands often provide suitable nesting substrate for the horned lark (*Eremophila alpestris*), burrowing owl (*Athene cunicularia*), northern harrier, and western meadowlark (*Sturnella neglecta*). Other birds, which do not necessarily nest within the grasslands but may forage in this habitat, include Brewer’s blackbirds (*Euphagus cyanocephalus*) and tricolored blackbird (*Agelaius tricolor*).

Open Water/Creeks

The open water land cover type consists of constructed ponds, including treatment ponds, retention basins, and farm/stock ponds, as well as the various mapped creeks and drainages that traverse the Planning Area. Approximately two acres of stock ponds were mapped in the Sierra Vista Specific Plan Area, along with 0.4 acres in the Amoruso Ranch Specific Plan Area (City of Roseville 2010, 2016). Retention ponds are designed to store stormwater for long durations and generally include a permanent pool of water. Features mapped as open water typically contain some amount of permanent surface water. Open water and creeks are limited to approximately six acres within the Planning Area.

Oak Woodland/Savannah

Oak woodlands and savannahs occur as scattered patches throughout the Planning Area along the outer edges of riparian corridors, and as small stands within agricultural, grassland, and vernal pool habitats. These habitats are dominated by native oak trees, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), and interior live oak (*Quercus wislizeni*). Other woody species often include native shrubs, such as hoary coffeeberry (*Frangula californica* ssp. *Tomentella*), coyote bush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), and poison oak (*Toxicodendron diversilobum*). Herbaceous understory plants include a variety of non-native grasses, such as ripgut brome, medushead grass (*Elymus caput-medusae*), soft chess brome, wild oats, Mediterranean barley, and Italian ryegrass, all of which are especially predominant in oak savannas.
Oak woodlands and savannahs provide important wildlife resources, including food, cover, shade, roosting, and breeding sites. Oak trees produce an abundance of acorns, which are an essential part of the diets of many species of native wildlife, including acorn woodpecker (*Melanerpes formicivorus*), California scrub-jay (*Aphelocoma californica*), and western gray squirrel (*Sciurus griseus*). Insects found in association with oak foliage and bark also attract insectivorous birds, such as yellow-rumped warbler (*Dendroica coronata*) and Hutton’s vireo (*Vireo huttoni*). Larger, dead, and/or decaying trees provide nesting sites for cavity-nesting birds, such as American kestrel (*Falco sparverius*), western bluebird (*Sialia mexicana*), tree swallow (*Tachycineta bicolor*), and white-breasted nuthatch (*Sitta carolinensis*). Other wildlife species that may be found in the oak woodland/savannah include coyote, mule deer (*Odocoileus hemionus*), Mexican free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*), pallid bat (*Antrozous pallidus*), Pacific chorus frog (*Pseudacris regilla*), western fence lizard (*Sceloporus occidentalis*), California kingsnake (*Lampropeltis getulus*), sharp-tailed snake (*Contia tenuis*), and striped racer (*Masticophis lateralis*). The Planning Area has approximately 712 acres of woodlands and savannahs.

**Riparian Woodland/Wetlands**

Within the Planning Area, riparian woodland and adjacent wetlands are found along the edges of creek corridors. Creek banks are often characterized by transitional wetlands, such as marshes, that intergrade with a riparian woodland canopy comprised of mature trees, an intermediate shrub layer, and herbaceous ground-cover. The stratified community provides an important migration corridor for a variety of wildlife, in addition to providing a wide variety of forage and cover. Wetland types are described in Section 4.8.2.2.

The canopy of the riparian woodland is typically comprised primarily of valley oak with scattered black willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), and California buckeye (*Aesculus californica*). Herbaceous riparian understory often includes a mixture of native and non-native grasses and forbs, including Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), tall flatsedge (*Cyperus eragrostis*), hairy willow-herb (*Epilobium ciliatum*), prickly sowthistle (*Sonchus asper*), vetch (*Vicia villosa*), rough cockle-bur (*Xanthium strumarium*), as well as California wild grape (*Vitis californica*). However, there is only remnant understory vegetation through most of the Pleasant Grove Creek corridor as a result of extensive cattle grazing (City of Roseville 2011b).

Riparian communities typically support a wide variety of bird species, including Bewick’s wren (*Thryomanes bewickii*), downy woodpecker (*Picoides pubescens*), Swainson’s hawk, wood duck (*Aix sponsa*), red-shouldered hawk (*Buteo lineatus*), great horned owl (*Bubo virginianus*), and tree swallow. Several bat species as previously described in the oak woodland community may occur within the riparian areas, as well.

The understory scrub community provides nesting habitat for song sparrow (*Melospiza melodia*) and California towhee (*Pipilo crissalis*). Resident and migratory songbirds, such as hermit thrush (*Catharus guttatus*), fox sparrow (*Passerella iliaca*), and spotted towhee also utilize willow scrub communities for foraging and cover. Other wildlife species observed within the riparian communities include Pacific chorus frog, western gray squirrel, mule deer, striped skunk (*Mephitis mephitis*), beaver (*Castor canadensis*), common garter snake (*Thamnophis sirtalis*), and raccoon (*Procyon lotor*). There are approximately 1,428 acres of riparian woodlands and wetlands within the Planning Area.
Vernal Pool Complexes

Vernal pool complexes are habitats that consist of uplands and ephemeral wetlands and drainages (i.e., vernal pools and swales) that are described in detail in section 4.8.2.2. This habitat type is found throughout the Planning Area, generally as small patches within open space preserves and in association with upland terraces along various creek drainage corridors. Larger expanses of vernal pool complexes are found in rolling grasslands in the western and northern portions of the Planning Area within the Reason Farms Environmental Preserve (PLT 2019), the Creekview Specific Plan Area (City of Roseville 2011a), the Amoruso Ranch Specific Plan Area (City of Roseville 2016), and the West Roseville Specific Plan Area (City of Roseville 2004). Numerous plant and animal species found in the Planning Area are endemic to vernal pools, and include several special-status species, such as dwarf downingia (*Downingia pusilla*), Boggs Lake hedge hyssop (*Gratiola heterosepala*), and the vernal pool fairy shrimp.

The upland portion of the vernal pool grassland community is comprised primarily of non-native naturalized Mediterranean grasses, such as ripgut brome, soft chess brome, wild oats, Italian ryegrass, Mediterranean barley, and medusahead. Other herbaceous species in this community may include bur clover (*Medicago polymorpha*), redstem filaree, clover (*Trifolium* species), field cluster lily (*Dichelostemma capitatum*), Fitch’s spikeweed (*Centromadia fitchii*), and yellow star-thistle (*Centaurea solstitialis*). Wildlife usage of these areas is like that described for the annual grassland habitat type, above. There are approximately 2,249 acres of vernal pool complexes within the Planning Area.

4.8.2.2 SENSITIVE HABITAT TYPES IN THE PLANNING AREA AND VICINITY

Sensitive habitats are defined as habitats with particularly high ecological values or functions, of limited distribution, or otherwise of concern to federal, State, and/or local resource agencies. Sensitive habitats mapped in the vicinity of the Planning Area include perennial streams, intermittent drainages, freshwater marsh, riparian forest, freshwater wetlands, drainages, and vernal pool complexes (Exhibit 4.8-1). Most sensitive habitats in the Planning Area are also considered jurisdictional wetlands.

The Planning Area is overlapped by the Pleasant Grove Creek, Dry Creek, Curry Creek, and Steelhead Creek watersheds. Pleasant Grove Creek originates approximately five miles east of the Planning Area near the City of Rocklin and then drains westward to the Pleasant Grove Canal, which connects to the Sacramento River just south of its confluence with the Feather River, approximately eight miles west of the Planning Area (EPA 2018). Dry Creek originates in the upper portions of the Loomis Basin in the vicinity of the town of Newcastle, approximately nine miles northeast of the Planning Area, and terminates at its confluence with Steelhead Creek (i.e., the Natomas East Main Drainage Canal [NEMDC]), which connects to the Sacramento River, approximately 9 miles to the southwest (EPA 2018). Neither Pleasant Grove Creek nor Dry Creek connect to upstream reservoirs. Although identified as a separate watershed, Curry Creek is currently considered to be a tributary of Pleasant Grove Creek. Curry Creek discharges into the Pleasant Grove Creek Canal approximately 0.5 mile south of the Pleasant Grove Creek confluence with the canal in Sutter County, west of the Planning Area. Steelhead

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2 Sensitive habitats are often designated because they are declining regionally or statewide. Sensitive habitats are of special concern because they have high potential to support special-status plant and animal species and can provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality. Sensitive habitats include Sensitive Natural Communities that are identified by the California Department of Fish and Wildlife (CDFW) (e.g., having a high priority for inventory by the California Natural Diversity Database [CNDDDB]) or those afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, California’s Porter-Cologne Act, or Section 404 of the Clean Water Act (CWA).
Creek, also known as the NEMDC, flows into the Sacramento River immediately upstream from the confluence of the American and Sacramento rivers. For additional discussion related to regional hydrology and wetlands, please see Section 4.13 of this EIR, “Hydrology and Water Quality.”

**Perennial Streams**

The Pleasant Grove Creek watershed within the Planning Area is comprised of the north and south forks of Pleasant Grove Creek, Kaseberg Creek, Coyote Creek, and several unnamed seasonal drainages and tributaries. Most of these creeks are perennially inundated due to surface runoff and from upstream activities. The Dry Creek watershed within the Planning Area is comprised of Secret Ravine, Miners Ravine, False Ravine, Antelope Creek, Cirby Creek, and Linda Creek. Like the Pleasant Grove watershed, most of these creeks are perennially inundated. Secret Ravine, Miners Ravine and Linda Creek are all considered potential salmonid habitat, while the main stem of Dry Creek is considered a migratory passage for Steelhead salmon. These streams support mature riparian forest habitat along the stream banks. The creeks and associated riparian forest provide important movement corridors for wildlife in an otherwise urban setting. Special-status wildlife that may use these habitats include Swainson’s hawk, Steelhead – Central Valley Distinct Population Segment, and numerous species of migratory birds.

**Intermittent Drainages**

Intermittent drainages are characterized by the presence of an ordinary high-water mark that can have a defined bed and bank. These drainage features convey flows during storm events and through the wet season, however standing water generally does not persist except in areas where deeper pools form. These types of drainages are largely unvegetated due to the scouring effects of fast flowing water, but hydrophytic vegetation may be prevalent at the upper edges of the drainage. Approximately 1.77 acres of intermittent streams were mapped in the Creekview Specific Plan Area (City of Roseville 2011a). University Creek, a tributary to Pleasant Grove Creek, was mapped as an intermittent drainage as part of the wetland mapping effort for the Amoruso Specific Plan (City of Roseville 2016).

**Freshwater Marsh**

The freshwater emergent marshes in the Planning Area are typically perennial systems within or adjacent to riparian areas in open space preserves. Freshwater marsh and associated wetlands form in permanently, or nearly permanently flooded or saturated soils in depressions or at the edges of streams, rivers, ponds, and lakes, as well as ditches and canals. Distinct vegetation zones often form as rings, strips, or patches in response to varying water depths and hydroperiods. Freshwater marshes are dominated by large, perennial herbaceous plants, particularly hardstem bulrush (**Schoenoplectus acutus** var. **acutus**) and cattail (**Typha** spp.). Cattail and bulrush species typically create dense monotypic stands of vegetation with few species present in the understory. Freshwater marsh habitat has generally not been mapped within the Planning Area, but minor areas of freshwater marsh habitat are expected to occur along creeks, canals, and ponds within the Planning Area. Two marshes totaling 1.822 acres were mapped within the Amoruso Specific Plan Area (City of Roseville 2016) and 2.7 acres of seasonal marsh were mapped in the Creekview Specific Plan Area (City of Roseville 2011a).

**Seasonal Wetlands and Vernal Pools**

Seasonal wetlands have generally not been mapped within the Planning Area but are expected to form in seasonally flooded or saturated soils in depressions or at the edges of streams, rivers, ponds, and lakes, as well as
ditches and canals that occur throughout the Planning Area in open space preserves, vacant lands, and agricultural areas. There are 4.827 acres of seasonal wetlands mapped within the Amoruso Ranch Specific Plan Area (City of Roseville 2016), 2.278 acres in the Sierra Vista Specific Plan Area (City of Roseville 2010), and 9.18 acres in the Creekview Specific Plan Area (City of Roseville 2011a). Dominant vegetation in these wetlands includes Mediterranean barley, Italian ryegrass, slender popcorn-flower (*Plagiobothrys stipitatus*), white-head navarretia (*Navarretia leucocephalus*), and hairy hawkbit (*Leontodon saxatilis*) (City of Roseville 2016).

Vernal pools are a type of seasonal wetland found in the Planning Area in open space areas, typically surrounding creeks and drainages. A total of approximately 2,249 acres of vernal pool complexes (i.e., vernal pool wetlands and surrounding uplands) has been mapped throughout the Planning Area, generally as small remnant patches along designated open space corridors, as well as a few larger complexes in the northwestern portion of the Planning Area. Vernal pools are ephemeral wetlands that form in shallow depressions underlain by an impervious or restrictive soil layer near the surface that restricts the percolation of water. These wetland types support low-growing, herbaceous plant communities dominated by annual plants and are typically characterized by a high percentage of native plant species, many of which may be endemic (restricted) to vernal pools. Preserved vernal pools throughout the City include both natural and constructed wetlands. Constructed wetlands were created as mitigation in several Open Space Preserve areas. Vernal pools are dominated by native plants, such as slender popcorn-flower, annual hairgrass (*Deschampsia danthonioides*), downingia (*Downingia* species), and Vasey’s coyote-thistle (*Eryngium vaseyi*). Typical wildlife associated with vernal pools include various aquatic invertebrates and amphibians, as well as waterfowl and wading bird species that may forage and/or rest within vernal pools during the wet season.

On December 15, 2005, USFWS released *The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*. This plan focuses on 33 species of plants and animals that occur exclusively or primarily within vernal pool ecosystems, including the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. This plan includes several core habitat recovery areas, one of which (the Western Placer County Core Area) overlaps with the Planning Area (Exhibit 4.8-2). Special-status species associated with vernal pool habitats, and their potential to occur in the Planning Area, are further discussed in Section 4.8.2.4.

**Riparian Habitat**

Riparian habitat is defined in the context of Section 1600 of the California Fish and Game Code. CDFW takes jurisdiction over riparian habitat. According to guidance provided in *A Field Guide to Lake and Streambed Alteration Agreements: Section 1600 Fish and Game Code*, the outer edge of riparian vegetation is a reasonable and identifiable boundary for the lateral extent of a stream, the protection of which should result in preserving the fish and wildlife at risk within a stream or drainage, and therefore may constitute the limits of CDFW jurisdiction along waterways. Within the Planning Area, riparian woodlands/wetlands are mapped along the banks and floodplains of major creeks and drainages (Exhibit 4.8-1). These habitats tend to be structurally diverse and dominated by trees. However, any vegetation that overlaps waterways within the Planning Area may be subject to regulation by CDFW under Section 1602 of the California Fish and Game Code.

**4.8.2.3 General Wildlife Usage of the Planning Area**

The majority of the Planning Area is characterized by developed and agricultural lands. Developed lands are generally not of high value for wildlife. Birds and mammals that occur in these areas typically include introduced species and those that are adapted to human habitation, such as Eurasian collared dove (*Streptopelia decaocto*),
European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), house finch (*Carpodacus mexicanus*), eastern fox squirrel (*Scirius niger*), brown rat (*Rattus norvegicus*), North American possum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). Although agricultural lands typically provide lower habitat values for most species than native habitats, they can provide important foraging habitat for some species, such as Swainson’s hawk and tricolored blackbird, and generally provide greater habitat values than urban areas and developed land. Although not present in the Planning Area, rice fields are regionally important and support large wintering populations of waterfowl and shorebirds and provide habitat for the federally-threatened giant garter snake. Alfalfa, disked fields, fallow fields, dry-land pasture, irrigated pasture, grain, hay, and other row crops tend to support large rodent populations and therefore provide foraging habitat for Swainson’s hawk, white-tailed kite, northern harrier, and more common raptors, such as American kestrel (*Falco sparverius*), great horned owl, and red-tailed hawk.

Annual grasslands and vernal pool complexes in the Planning Area support numerous small mammal species that provide prey for a variety of raptor species that are likely to hunt in the area. Other common species expected to use these habitats include western toad (*Bufo boreas*), gopher snake, racer (*Coluber constrictor*), western fence lizard (*Sceloporus occidentalis*), western kingbird (*Tyrannis verticalis*), western meadowlark, Brewer’s blackbird, striped skunk, black-tailed jackrabbit, and coyote.

Aquatic habitats in and near the Planning Area support a number of common wildlife species, including red-winged blackbird (*Agelaius phoeniceus*), mallard (*Anas platyrhynchos*), cinnamon teal (*Anas cyanoptera*), belted kingfisher (*Ceryle alcyon*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), American bullfrog (*Rana catesbeiana*), and Pacific chorus frog (*Pseudacris sierra*).

### 4.8.2.4 Special-Status Species

Special-status species include plants and animals in the following categories:

- species officially listed by the State of California or the Federal government as endangered, threatened, or rare;
- candidates for state or federal listing as endangered or threatened;
- taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- species identified by the CDFW as species of special concern;
- species listed as Fully Protected under the California Fish and Game Code;
- species afforded protection under local or regional planning documents; and
- taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:
CRPR 1A - Plants presumed to be extinct in California;
CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere;
CRPR 2A - Plants presumed to be extinct in California, but more common elsewhere;
CRPR 2B - Plants that are rare, threatened, or endangered in California, but more common elsewhere;
CRPR 3 - Plants about which more information is needed (a review list); and
CRPR 4 - Plants of limited distribution (a watch list).

All plants with a CRPR are considered “special plants” by CDFW. The term “special plants” is a broad term used by CDFW to refer to all the plant taxa inventoried in CDFW’s CNDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A, 1B, 2A, and 2B may qualify as endangered, rare, or threatened species within the definition of CEQA Guidelines Section 15380. CDFW recommends that potential impacts to CRPR 1 and 2 species be evaluated in CEQA documents. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to CEQA Guidelines Section 15380. However, these species may be evaluated by the lead agency on a case-by-case basis.

A list of special-status species that could potentially occur in the Planning Area or immediate vicinity, provided suitable habitat conditions are present, was developed through review of available background reports; previous studies conducted in or near the Planning Area; biological resource databases, including the CNDDB and CNPS Inventory; a list obtained from the U.S. Fish and Wildlife Service Information, Planning, and Conservation System (IPaC); and the draft Western Placer County Habitat Conservation Plan/Natural Community Conservation Plan.

**Special-Status Plants**

AECOM biologists compiled a list of special-status plant species with potential to occur in the project region. The list was compiled using information provided in the USFWS IPaC database (USFWS 2019a); documentation of species during technical studies prepared for the West Roseville, Sierra Vista, Creekview, and Amoruso Ranch Specific Plans (City of Roseville 2004, 2010, 2011a, 2016); and the results of a search of the CNPS (2019a) and CNDDB databases (CDFW 2019b) for the five USGS quadrangles within which the Planning Area occurs – Pleasant Grove, Roseville, Rocklin, Citrus Heights, and Folsom – as well as the surrounding 14 USGS quadrangles: Verona, Nicolaus, Sheridan, Lincoln, Rio Linda, Taylor Monument, Folsom, Gold Hill, Auburn, Pilot Hill, Clarksville, Carmichael, Buffalo Creek, Folsom SE, and Sacramento East (USGS 2018a-s).

The database searches resulted in a total of 23 special-status plant species evaluated for their potential to occur on within or in the vicinity of the Planning Area. Table 4.8-2 summarizes the regulatory status, habitat, potential for occurrence, and results of botanical surveys within the Planning Area for each species (CDFW 2019b).

Based on database search results and results of botanical survey work for the West Roseville, Sierra Vista, and Amoruso Ranch Specific Plans, there are six special-status plant species with records in, or adjacent to the Planning Area: big-scale balsam root, Boggs Lake hedge hyssop, dwarf downingia, Hispid salty bird’s-beak, legenere, and Sanford’s arrowhead. Additional species that could occur due to the presence of suitable vernal pool habitat include Ahart’s dwarf rush and pincushion navarretia.
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status</th>
<th>Elevation Range (feet AMSL)</th>
<th>Blooming Period</th>
<th>Potential for Occurrence in the Planning Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allium jepsonii</td>
<td>Jepson’s onion</td>
<td>Federal</td>
<td>980–4,330</td>
<td>Apr–Aug</td>
<td><strong>No potential:</strong> no suitable habitat (serpentine or volcanic soils) present.</td>
</tr>
<tr>
<td>Balsamorhiza macrolepis</td>
<td>big-scale balsamroot</td>
<td>State</td>
<td>145–5,100</td>
<td>Mar–Jun</td>
<td><strong>Could Occur:</strong> suitable habitat (grassland) present in the Planning Area, and there is one record of this species within 2 miles to the north of the Planning Area, in uncultivated ground near railroad tracks (CDFW 2019b). Although not found during botanical surveys, species considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
<tr>
<td>Calystegia stebbinsii</td>
<td>Stebbins’ morning-glory</td>
<td></td>
<td>605–3,575</td>
<td>Apr–Jul</td>
<td><strong>No potential:</strong> no suitable habitat (gabbroic or serpentine soils) present.</td>
</tr>
<tr>
<td>Carex xerophila</td>
<td>chaparral sedge</td>
<td></td>
<td>1,440–2,525</td>
<td>Mar–Jun</td>
<td><strong>No potential:</strong> no suitable habitat (gabbroic or serpentine soils) present.</td>
</tr>
<tr>
<td>Ceanothus roderickii</td>
<td>Pine Hill ceanothus</td>
<td>Federal</td>
<td>800–3,575</td>
<td>Apr–Jun</td>
<td><strong>No potential:</strong> no suitable habitat (gabbroic or serpentine soils) present.</td>
</tr>
<tr>
<td>Chlorogalum grandiflorum</td>
<td>Red Hills soaproot</td>
<td>State</td>
<td>800–5,545</td>
<td>May–Jun</td>
<td><strong>No potential:</strong> no suitable habitat (gabbroic or serpentine soils) present.</td>
</tr>
<tr>
<td>Chloropyron molle ssp. hispidum</td>
<td>hispid salty bird’s-beak</td>
<td></td>
<td>0–510</td>
<td>Jun–Sep</td>
<td><strong>Not likely to occur:</strong> no suitable habitat (alkaline seep, meadow, or playa) mapped within the Planning Area. There is only one record of this species within a 19-quad search radius, and it is approximately 2 miles northeast of the Planning Area at the Stanford Ranch Alkali Seep Preserve (CDFW 2019b).</td>
</tr>
<tr>
<td>Species</td>
<td>Common Name</td>
<td>Federal</td>
<td>State</td>
<td>CRPR²</td>
<td>Habitat Requirements</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------</td>
<td>---------</td>
<td>-------</td>
<td>-------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Downingia pusilla</td>
<td>dwarf downingia</td>
<td>-</td>
<td>-</td>
<td>2B.2</td>
<td>Mesic sites and vernal pools in valley and foothill grassland.</td>
</tr>
<tr>
<td>Eryngium pinnatisectum</td>
<td>Tuolumne button-celery</td>
<td>-</td>
<td>-</td>
<td>1B.2</td>
<td>Mesic sites and vernal pools in cismontane woodland and lower montane coniferous forest.</td>
</tr>
<tr>
<td>Fremontodendron decumbens</td>
<td>Pine Hill flannelbush</td>
<td>FE</td>
<td>SR</td>
<td>1B.2</td>
<td>Rocky gabbroic or serpentine soils in chaparral and cismontane woodland.</td>
</tr>
<tr>
<td>Galium californicum ssp. sierrae</td>
<td>El Dorado bedstraw</td>
<td>FE</td>
<td>SR</td>
<td>1B.2</td>
<td>Gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest.</td>
</tr>
<tr>
<td>Gratiola heterosepela</td>
<td>Boggs Lake hedge-hyssop</td>
<td>-</td>
<td>SE</td>
<td>1B.2</td>
<td>Marshes and swamps (lake margins), and vernal pools.</td>
</tr>
</tbody>
</table>
### Table 4.8-2  Special-Status Plant Species with Potential to Occur Within the Planning Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status</th>
<th>Habitat Requirements</th>
<th>Elevation Range (feet AMSL)</th>
<th>Blooming Period</th>
<th>Potential for Occurrence in the Planning Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Hibiscus lasiocarpos</em> var. <em>occidentalis</em></td>
<td>woolly rosemallow</td>
<td>Federal - State - CRPR 1B.2</td>
<td>Freshwater marshes and swamps, often in riprap on sides of levees.</td>
<td>0–395</td>
<td>Jun–Sep</td>
<td><strong>Not likely to occur</strong>: potentially suitable habitat (freshwater marsh) in the Planning Area is marginal, with little or no riprap levees. There is only one record of this species in a 19-quad search radius, along East Side Canal approximately 5 miles to the northwest of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td><em>Juncus leiospermus</em> var. <em>ahartii</em></td>
<td>Ahart’s dwarf rush</td>
<td>Federal - State - CRPR 1B.2</td>
<td>Mesic sites in valley and foothill grassland.</td>
<td>95–750</td>
<td>Mar–May</td>
<td><strong>Could occur</strong>: suitable habitat (grassland) present throughout the Planning Area. The nearest record of this species is from within the city of Lincoln in Placer County (CDFW 2019b). Species considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
<tr>
<td><em>Juncus leiospermus</em> var. <em>leiospermus</em></td>
<td>Red Bluff dwarf rush</td>
<td>Federal - State - CRPR 1B.1</td>
<td>Vernally mesic sites including meadows, seeps, and vernal pools in chaparral and cismontane woodlands.</td>
<td>110–4,100</td>
<td>Mar–Jun</td>
<td><strong>Not likely to occur</strong>: no suitable habitat (chaparral and cismontane woodlands) in the Planning Area. Although there is one occurrence of this species from within the Planning Area, it is considered an erroneous record and likely a misidentification (CDFW 2019b). Considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
<tr>
<td><em>Legenere limosa</em></td>
<td>legenere</td>
<td>Federal - State - CRPR 1B.1</td>
<td>Vernal pools</td>
<td>0–2,885</td>
<td>Apr–Jun</td>
<td><strong>Could occur</strong>: suitable habitat (vernal pools) present in the Planning Area. There are two records of this species within 2 miles, in the floodplain of Pleasant Grove Creek (CDFW 2019b). Although not found during botanical surveys, species considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
</tbody>
</table>
### Table 4.8-2 Special-Status Plant Species with Potential to Occur Within the Planning Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status</th>
<th>Habitat Requirements</th>
<th>Elevation Range (feet AMSL)</th>
<th>Blooming Period</th>
<th>Potential for Occurrence in the Planning Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Navarretia myersii ssp. myersii</em></td>
<td>pincushion navarretia</td>
<td>-</td>
<td>Vernal pools, often with acidic soils.</td>
<td>60–1,085</td>
<td>Apr–May</td>
<td>Could occur; suitable habitat (vernal pools) present in the Planning Area. There are 2 records of this species within 10 miles of the Planning Area: one is from the Phoenix Field Ecological Reserve in Fair Oaks approximately 4 miles to the south, and the other is from a 1971 collection in Lincoln, 6 miles to the north (CDFW 2019b). Although not found during botanical surveys, species considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
<tr>
<td><em>Orcuttia tenuis</em></td>
<td>slender Orcutt grass</td>
<td>FT SE</td>
<td>Vernal pools, often with gravelly soils.</td>
<td>110–5,775</td>
<td>May–Sep (Oct)</td>
<td>Not likely to occur; although suitable habitat (vernal pools) is present, there are no records of this species in Placer County (CDFW 2019b). There is only one record of this species within a 19-quad search radius, approximately 20 miles to the south, near Mather Field. Considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
<tr>
<td><em>Orcuttia viscida</em></td>
<td>Sacramento Orcutt grass</td>
<td>FE SE</td>
<td>Vernal pools</td>
<td>95–330</td>
<td>Apr–Jul (Sep)</td>
<td>Not likely to occur; although suitable habitat (vernal pools) is present, there are no records of this species in Placer County (CDFW 2019b). There are 11 records of this species several miles to the south of the Planning Area in Sacramento County. Considered to have low potential to occur within the Amoruso Ranch Specific Plan Area (City of Roseville 2016).</td>
</tr>
<tr>
<td><em>Packera layneae</em></td>
<td>Layne’s ragwort</td>
<td>FT SR</td>
<td>Rocky serpentine or gabbroic soils in chaparral and cismontane woodland.</td>
<td>655–3,560</td>
<td>Apr–Aug</td>
<td>No potential; no suitable habitat (gabbroic or serpentine soils) present.</td>
</tr>
<tr>
<td><em>Sagittaria sanfordii</em></td>
<td>Sanford’s arrowhead</td>
<td>-</td>
<td>Marshes, swamps, and other shallow freshwater habitats.</td>
<td>0–2,135</td>
<td>May–Oct (Nov)</td>
<td>Could occur; suitable habitat (freshwater wetlands) present within the Planning Area. There are three records of this species within 2 miles of the Planning Area in drainage channel habitats (CDFW 2019b).</td>
</tr>
<tr>
<td>Species</td>
<td>Common Name</td>
<td>Federal</td>
<td>State</td>
<td>CRPR</td>
<td>Habitat Requirements</td>
<td>Elevation Range (feet AMSL)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><em>Viburnum ellipticum</em></td>
<td>oval-leaved viburnum</td>
<td>-</td>
<td>-</td>
<td>2B.3</td>
<td>Chaparral, cismontane woodland, and lower montane coniferous forest.</td>
<td>705–4,595</td>
</tr>
<tr>
<td><em>Wyethia reticulata</em></td>
<td>El Dorado County mule ears</td>
<td>-</td>
<td>-</td>
<td>1B.2</td>
<td>Clay or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest.</td>
<td>605–2,065</td>
</tr>
</tbody>
</table>

**Notes:**

1. **Listing Status:**
   - **Federal—U.S. Fish and Wildlife Service:**
     - FE = endangered
     - FT = threatened
     - = no status
   - **State—California Department of Fish and Wildlife:**
     - SE = endangered
     - SR = rare
     - = no status

2. **CRPR (California Rare Plant Ranks):**
   - 1B = plant species considered rare, threatened, or endangered in California and elsewhere
   - 2B = plant species considered rare, threatened, or endangered in California but more common elsewhere

   **California Rare Plant Rank Extensions:**
   - .1 = seriously endangered in California (>80 percent of occurrences are threatened and/or have high degree and immediacy of threat)
   - .2 = fairly endangered in California (20–80 percent of occurrences are threatened)
   - .3 = not very endangered in California

3. **AMSL = above mean sea level**

4. **Potential for Occurrence:**
   - **No Potential to Occur:** The Planning Area is outside the species’ range or suitable habitat for the species is absent from the Planning Area and adjacent areas.
   - **Not Likely to Occur:** The Planning Area is within the species’ range, no occurrences of the species have been recorded within or immediately adjacent to the Planning Area, and either habitat for the species is marginal or potentially suitable habitat may occur, but the species’ current known range is restricted to areas outside of the Planning Area.
   - **Could Occur:** The Planning Area is within the species’ range, and no occurrences of the species have been recorded within the Planning Area; however, suitable habitat for the species is present and recorded occurrences of the species are generally present in the vicinity.
   - **Known to Occur:** The Planning Area is within the species’ range, suitable habitat for the species is present, and the species has been recorded from within the Planning Area.
Although Hispid salty bird’s beak is present in the region and is recorded within two miles of the Planning Area in the CNNDDB, suitable micro habitat required by the species (i.e., alkaline seeps and meadows) is not present in the Planning Area, so this species is considered unlikely to occur and not discussed further. In addition, although a population of Red Bluff dwarf rush is mapped in the City of Roseville, according to the notes on this record, experts in vernal pool botany consider this site to be erroneous since it is outside the known range of the species (City of Roseville 2016). Furthermore, Red Bluff dwarf rush is associated with chaparral or cismontane woodland habitats, which do not exist within the Planning Area; therefore, Red Bluff dwarf rush is considered unlikely to occur and not discussed further.

The life history and ecology of the seven special-status plant species that are known to occur or have potential to occur in the Planning Area are discussed further below.

**Big-scale Balsam Root**

Big-scale balsamroot is designated as a CRPR 1B.2 species; however, it is not listed under federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). This species is an herbaceous perennial that occurs in chaparral, cismontane woodlands, valley and foothill grasslands, and occasionally on serpentine soils. The big-scale balsamroot blooms from March through June and is known to occur at elevations ranging from 45 to 5,100 feet above mean sea level (amsl). Big-scale balsamroot is endemic to California; the current range of this species includes Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties (CNPS 2019b).

Annual grasslands in the Planning Area have suitable habitat present in the Planning Area, and there is one record of this species within two miles to the north of the Planning Area, in uncultivated ground near railroad tracks (CDFW 2019b). This species considered to have low potential to occur within the Amoruso Ranch Specific Plan Area and the Al Johnson Wildlife area (Reason Farms) and was not found during 2013 and 2015 botanical surveys (City of Roseville 2016).

**Boggs Lake Hedge-Hyssop**

Boggs Lake hedge-hyssop is designated as a CRPR 1B.2 species and listed as endangered pursuant to CESA; however, it is not listed under FESA. This species is a small herbaceous, semi-aquatic annual that occurs on clay soils in vernal pools, and marshes and swamps of lake margins. Boggs Lake hedge-hyssop blooms from April through August and is known to occur at elevations ranging from 33 to 7,792 feet amsl. The current range of this species in California includes Fresno, Lake, Lassen, Madera, Mendocino, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Juaquin, Solano, and Tehama counties (CNPS 2019b).

Suitable habitats (marshes and vernal pools) for Boggs Lake hedge-hyssop are present in the Planning Area and there are three records of this species from within the Planning Area (CDFW 2019b). This species was observed in a deep basin vernal pool in the Creekview Specific Planning Area during botanical surveys conducted in 2006 and 2008 (City of Roseville 2011a).
**Dwarf Downingia**

Dwarf downingia is designated as a CRPR 2B.2 species; however, it is not listed under FESA or CESA. This species is a small herbaceous annual that occurs in vernal pools and mesic areas in valley and foothill grasslands. This species blooms from March through May and is known to occur at elevations ranging from 3 to 1,460 feet amsl. The current range of this species in California includes Amador, Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties (CNPS 2019b).

Suitable habitat (vernal pools in valley grassland) is present for dwarf downingia and there are 13 records of this species within the Planning Area (CDFW 2019b). This species was found during 2006 botanical surveys in the Creekview Specific Plan Area in vernal pool, wetland swale, and man-made ditch habitats (City of Roseville 2011a). Dwarf downingia was also detected in 2013 and 2015 botanical surveys within the Amoruso Ranch Specific Plan Area and off-site at the Al Johnson Wildlife Area (Reason Farms) improvements area (City of Roseville 2016).

**Legenere**

Legenere is designated as a CRPR 1B.1 species; however, it is not listed under FESA or CESA. This species is an herbaceous annual that occurs in vernal pools, seasonal wetlands, wetland swales, marshes, artificial ponds, and floodplains of intermittent drainages. Legenere blooms from April through June and is known to occur at elevations ranging from 3 to 2,887 feet amsl. Legenere is endemic to California; the current range of this species includes Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties.

Suitable habitat (vernal pools) for legenere is present within the Planning Area. There are two records of this species within two miles, in the floodplain of Pleasant Grove Creek (CDFW 2019b). This species was not found during botanical surveys in 2013 and 2015 and is considered to have low potential to occur within the Amoruso Ranch Specific Plan Area and the Al Johnson Wildlife Area (Reason Farms) (City of Roseville 2016).

**Pincushion Navarretia**

Pincushion navarretia is designated as a CRPR 1B.1; however, it is not listed under FESA or CESA. This species is an herbaceous annual that occurs in vernal pools that are often acidic. Pincushion navarretia blooms from April through May and is known to occur at elevations ranging from 66 to 1,083 feet amsl. Pincushion navarretia is endemic to California; the current range of this species includes Amador, Calaveras, Merced, Placer, and Sacramento counties.

Suitable habitat (vernal pools) for pincushion navarretia is present within the Planning Area. There are two records of this species within 10 miles of the Planning Area: one is from the Phoenix Field Ecological Reserve in Fair Oaks approximately 4 miles to the south, and the other is from a 1971 collection in Lincoln, 6 miles to the north (CDFW 2019b). This species was not found during botanical surveys in 2013 and 2015 and is considered to have low potential to occur within the Amoruso Ranch Specific Plan Area and the Al Johnson Wildlife Area (Reason Farms) (City of Roseville 2016).
Ahart’s Dwarf Rush

Ahart’s dwarf rush is designated as a CRPR 1B.1; however, it is not listed under FESA or CESA. This species is an herbaceous annual that occurs in vernal mesic sites in valley and foothill grassland, vernal pools, meadows and seeps, cismontane woodland, and chaparral. Ahart’s dwarf rush blooms from March through June and is known to occur at elevations ranging from 95 to 750 feet amsl. This species is endemic to California; the current range of this species includes Butte, Placer, Shasta, and Tehama counties.

Suitable habitat (grassland) is present for Ahart’s dwarf rush throughout the Planning Area. The nearest record of this species is from within the city of Lincoln in Placer County (CDFW 2019b). Ahart’s dwarf rush is considered to have low potential to occur within the Amoruso Ranch Specific Plan Area and the Al Johnson Wildlife Area (Reason Farms) and was not found during 2013 and 2015 botanical surveys (City of Roseville 2016).

Sanford’s Arrowhead

Sanford’s arrowhead is designated as a CRPR 1B.2 species; however, it is not listed under FESA or CESA. This species is a rhizomatous herbaceous perennial that occurs in shallow marshes and freshwater swamps. Sanford’s arrowhead blooms from May through October and is known to occur at elevations ranging from sea level to 2,133 feet amsl. Sanford’s arrowhead is endemic to California; the current range of this species includes Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Marin, Napa, Orange, Placer, Sacramento, San Bernardino, Shasta, San Joaquin, Solano, Tehama, Tulare, Ventura, and Yuba counties.

Suitable habitat (freshwater wetlands) for Sanford’s arrowhead is present within the Planning Area at Pleasant Grove Creek, and at drainages, marshes, and ponds within the Amoruso Ranch Specific Plan Area and the Al Johnson Wildlife Area (Reason Farms); however, the species was not found on the project site of the Al Johnson Wildlife Area (Reason Farms) improvements area during 2013 and 2015 surveys (City of Roseville 2016). There are three records of this species within two miles of the Planning Area in drainage channel habitats. The nearest documented occurrence of Sanford’s arrowhead is near the south-central border of the City of Roseville (CDFW 2019b).

Special-Status Wildlife

AECOM biologists compiled a list of special-status wildlife species with the potential to occur in the Planning Area, using information obtained from a search of the USFWS IPaC database and a search of the CNDDB database (CDFW 2019b) for the five USGS quadrangles within which the Planning Area occurs – Pleasant Grove, Roseville, Rocklin, Citrus Heights, and Folsom – as well as the surrounding 14 USGS quadrangles: Verona, Nicolaus, Sheridan, Lincoln, Rio Linda, Taylor Monument, Folsom, Gold Hill, Auburn, Pilot Hill, Clarksville, Carmichael, Buffalo Creek, Folsom SE, and Sacramento East (USGS 2018a-s). Database searches identified a total of 34 special-status wildlife species in the region. Several wildlife habitat surveys have also been conducted in the Planning Area between 2007 and 2015 for the Sierra Vista Specific Plan and Amoruso Ranch Specific Plan, respectively, the results of which are incorporated into this analysis. Based on database search results and site-specific surveys conducted for the above-mentioned Specific Plans, 26 special-status wildlife species are known or have the potential to occur in the Planning Area. These species are listed below in Table 4.8-3, along with their status, habitat, and potential to occur in the Planning Area.
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status¹</th>
<th>Habitat Requirements</th>
<th>Distribution</th>
<th>Potential for Occurrence in the Planning Area²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Invertebrates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branchinecta conservatio</td>
<td>Conservancy fairy shrimp</td>
<td>FE</td>
<td>Vernal pools and swales in valley and foothill grassland; found in large, turbid pools.</td>
<td>Endemic to the grasslands of the northern two-thirds of the Central Valley from Tulare County to Shasta County.</td>
<td>Not likely to occur; there is only one record of this species within a 19-quad search radius and it is from the Mariner Conservation Bank approximately 6 miles north of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td>Branchinecta lynchi</td>
<td>vernal pool fairy shrimp</td>
<td>FT</td>
<td>Small, clear-water sandstone-depression vernal pools and grassed swale, earth slump, or basalt-flow depression vernal pools.</td>
<td>Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains.</td>
<td>Known to occur; suitable habitat present and there are 26 records of the species from within and adjacent to the Planning Area (CDFW 2019b). In addition, the species has been detected in several open space preserves within the Planning Area (City of Roseville 2011b), and in the West Roseville, Sierra Vista, Creekview, and Amoroso Ranch Specific Plan Areas (City of Roseville 2004, 2010, 2011a, 2016).</td>
</tr>
<tr>
<td>Lepidurus packardi</td>
<td>vernal pool tadpole shrimp</td>
<td>FE</td>
<td>Inhabits vernal pools and swales, often found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.</td>
<td>Endemic to the California Central Valley, with most individuals found in the Sacramento Valley.</td>
<td>Known to occur; suitable habitat is present within the Planning Area, and there is one record of this species from within the Planning Area that is now possibly extirpated (CDFW 2019b).</td>
</tr>
<tr>
<td>Desmocerus californicus dimorphus</td>
<td>valley elderberry longhorn beetle</td>
<td>FT</td>
<td>Elderberry shrubs (the host plant species), typically as a component of dense riparian habitat.</td>
<td>Throughout the Central Valley from Shasta County to Fresno County including the valley floor and lower foothills, usually below 500 feet (amsl) in elevation.</td>
<td>Known to occur; species has been documented within the Planning Area in the Stoneridge Cavitt Ranch/Vista Oaks preserve (City of Roseville 2019). There are another 5 records of this species within 2 miles east of the Planning Area, in riparian habitats associated with Secret Ravine, Linda Creek, and the shore of Folsom Lake (CDFW 2019b).</td>
</tr>
</tbody>
</table>
### Special-Status Wildlife Species with Potential to Occur Within the Planning Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status¹</th>
<th>Federal</th>
<th>State</th>
<th>CDFW</th>
<th>Habitat Requirements</th>
<th>Distribution</th>
<th>Potential for Occurrence in the Planning Area²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombus occidentalis</td>
<td>western bumble bee</td>
<td></td>
<td></td>
<td>SCE</td>
<td>-</td>
<td>Generalist foragers for nectar and pollen. Nest sites include abandoned rodent burrows and bird nests.</td>
<td>Once common in the western United States and western Canada, populations from Southern British Columbia to central California have nearly disappeared.</td>
<td>Not likely to occur; there is only one record of this species within a 19-quad search radius and it is from a 1976 collection at Pilot Hill approximately 12 miles northeast of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td>Oncorhynchus mykiss irideus pop. 11</td>
<td>steelhead – Central Valley Distinct Population Segment (DPS)</td>
<td>FT</td>
<td></td>
<td>-</td>
<td>-</td>
<td>Cool, clear streams with abundant cover and well-vegetated banks, with relatively stable flows. Pool and riffle complexes and cold gravelly streambeds for spawning.</td>
<td>Populations in the Sacramento and San Joaquin Rivers and their tributaries.</td>
<td>Known to occur; detected in mainstem Dry Creek, which is used as a migratory corridor, with spawning &amp; rearing habitat upstream in Secret Ravine and Miners Ravine (CDFW 2019b).</td>
</tr>
<tr>
<td>Oncorhynchus tshawytscha pop. 6</td>
<td>chinook salmon – Central Valley spring-run Evolutionary Significant Unit (ESU)</td>
<td>FT</td>
<td></td>
<td>ST</td>
<td>-</td>
<td>Water temperatures greater than 27 degrees Celsius (80.6 degrees Fahrenheit) are lethal to adults. Spring-run Chinook Salmon enter the Sacramento River from late March through September. Adults hold in cool water habitats through the summer, then spawn in the fall from mid-August through early October.</td>
<td>The Sacramento River and its tributaries, including Butte, Mill, Deer, Antelope, and Beegum Creeks.</td>
<td>Not likely to occur; the Planning Area is outside of the known range of this ESU. There is only one record of this ESU within a 19-quad search radius, and it is from the Lower Feather River (CDFW 2019b).</td>
</tr>
<tr>
<td>Oncorhynchus tshawytscha</td>
<td>chinook salmon – Central Valley fall/late-fall run Evolutionary Significant Unit (ESU)</td>
<td>SC</td>
<td></td>
<td>-</td>
<td>SSC</td>
<td>Water temperatures greater than 27 degrees Celsius (80.6 degrees Fahrenheit) are lethal to adults. Fall-run Chinook Salmon migrate to Central Valley rivers from approximately July to December. Peak spawning for fall-run spawning fish occurs during late October and November.</td>
<td>The most abundant populations of fall-run Chinook salmon occur in the Sacramento, Feather, Yuba, and American Rivers. The ESU also occurs in smaller tributaries of the Sacramento River and in tributaries of the San Joaquin River.</td>
<td>Known to occur; species detected in Dry Creek and its tributaries (Miners Ravine, Secret Ravine, Antelope Creek, Linda/Cirby Creek) from 2003 – 2008 (PCCP 2018).</td>
</tr>
</tbody>
</table>
### Table 4.8-3  Special-Status Wildlife Species with Potential to Occur Within the Planning Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status¹</th>
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<th>Habitat Requirements</th>
<th>Distribution</th>
<th>Potential for Occurrence in the Planning Area²</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Hypomesus transpacificus</em></td>
<td>Delta smelt</td>
<td>FT</td>
<td>FE</td>
<td>-</td>
<td>-</td>
<td>River channels; spawn in backwater sloughs and channel with tidal influence.</td>
<td>Found only from the Suisun Bay upstream through the Sacramento-San Joaquin River Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties.</td>
<td><strong>No potential to occur;</strong> no suitable habitat, and the Planning Area is outside of the species’ range. There are no records of this species in a 19-quad search radius (CDFW 2019b).</td>
</tr>
<tr>
<td><em>Spirinchus thaleichthys</em></td>
<td>Longfin smelt</td>
<td>FC</td>
<td>ST</td>
<td>-</td>
<td>-</td>
<td>Found in open waters of estuaries, mostly in middle or bottom of water column.</td>
<td>Bays and estuaries along the Pacific Northwest, from the San Francisco Bay to Alaska.</td>
<td><strong>No potential to occur;</strong> no suitable habitat in the Planning Area.</td>
</tr>
<tr>
<td><em>Pogonichthys macrolepidotus</em></td>
<td>Sacramento splittail</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
<td>-</td>
<td>Slow moving river sections, and dead-end sloughs. Requires flooded vegetation for spawning and foraging for young.</td>
<td>Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes.</td>
<td><strong>Not likely to occur;</strong> low potential in Dry Creek and its tributaries.</td>
</tr>
<tr>
<td><strong>Amphibians</strong></td>
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<td></td>
</tr>
<tr>
<td><em>Ambystoma californiense</em></td>
<td>California tiger salamander</td>
<td>FT</td>
<td>-</td>
<td>SSC</td>
<td>-</td>
<td>Vernal pools, vernal pool grasslands, and ponds.</td>
<td>Occurs from near Petaluma and Sonoma Counties, east through the Central Valley to Yolo and Sacramento Counties and south to Tulare County; and from the vicinity of San Francisco Bay south to Santa Barbara County.</td>
<td><strong>Not likely to occur;</strong> there are no records of this species within a 19-quad search radius, and no recent or historical records from western Placer County (CDFW 2019b).</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Listing Status</td>
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<td>CDFW</td>
<td>Habitat Requirements</td>
<td>Distribution</td>
<td>Potential for Occurrence in the Planning Area</td>
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</tr>
<tr>
<td>Rana boylii</td>
<td>foothill yellow-legged frog</td>
<td>-</td>
<td>SCT</td>
<td>-</td>
<td>SSC</td>
<td>Typically found in streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. Needs at least 15 weeks of permanent water to attain metamorphosis.</td>
<td>Occurs in the Coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles County, in most of northern California west of the Cascade crest, and along the western flank of the Sierra Nevada south to Kern County.</td>
<td>Not likely to occur; there are only two records of this species within a 19-quad search radius, and both are from within the American River watershed. The nearest record is from a 1972 collection near Salmon Falls Road in a drainage to Folsom Lake, approximately 7 miles east of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td>Rana draytonii</td>
<td>California red-legged frog</td>
<td>FT</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
<td>Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11–20 weeks of permanent water for larval development and must have access to aestivation habitat.</td>
<td>Occurs along the Coast Ranges from Mendocino County south and in portions of the Sierra Nevada and Cascades ranges, usually below 3936 feet.</td>
<td>Not likely to occur; there is only one record of this species within a 19-quad search radius and it is from a drainage along the east shore of Folsom Lake approximately 7 miles east of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td>Spea hammondii</td>
<td>western spadefoot</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
<td>Occurs primarily in grassland habitats but can be found in valley foothill hardwood woodland. Vernal pools are essential for breeding and egg-laying.</td>
<td>Ranges throughout the Central Valley and adjacent foothills, and in the Coast Ranges from Point Conception south to the Mexican border.</td>
<td>Known to occur; there are 5 records of this species from within the Planning Area in vernal pool and seasonal wetland habitats (CDFW 2019b).</td>
</tr>
<tr>
<td>Actinemys marmorata</td>
<td>western pond turtle</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
<td>Forages in ponds, marshes, slow-moving streams, sloughs, and irrigation/drainage ditches; nests in nearby uplands with low, sparse vegetation. Generally, nest within 325 feet of aquatic habitat, but has been reported to nest up to 1,600 feet from water.</td>
<td>Throughout California west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Elevation range extends from near sea level to 4,690 ft (amsl).</td>
<td>Could occur; suitable aquatic habitat is present in the Planning Area. The nearest record of the species is approximately 2 miles to the east, in wetland habitat near Folsom Lake (CDFW 2019b).</td>
</tr>
<tr>
<td>Species</td>
<td>Scientific Name</td>
<td>Scientific Name (Common Name)</td>
<td>Common Name</td>
<td>Common Name (Scientific Name)</td>
<td>Listing Status</td>
<td>Habitat Requirements</td>
<td>Distribution</td>
<td>Potential for Occurrence in the Planning Area</td>
</tr>
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<td></td>
<td>Cultivated rice, freshwater marsh, and slow-moving streams, or ditches and canals with mud bottoms, earthen banks, emergent vegetation, abundant small aquatic prey, and absence or low numbers of large predatory fish. Requires permanent water during the active season. Also requires upland refugia not subject to flooding during the snake’s inactive season.</td>
<td>Endemic to California’s Central Valley.</td>
<td>Not likely to occur; there are no records of this species from Placer County (CDFW 2019b). No suitable rice fields or associated agricultural ditches/canals are present within the Planning Area. Other marginally suitable habitats may occur, but the Planning Area is outside the known range of the species.</td>
</tr>
<tr>
<td>Thamnophis gigas</td>
<td>Thamnophis gigas</td>
<td>giant gartersnake</td>
<td>FT</td>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birds*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wooded areas, including dense stands of live oak, riparian deciduous, and other forest habitats, typically near water.</td>
<td>Resident throughout most of the wooded portion of the state.</td>
<td>Known to occur; there are over 400 observations of this species in and adjacent to the Planning Area in all months of the year from January 2014 to December 2018 (Levatich and Padilla 2019). Nearest recorded nest is from Goethe Park along the American River, approximately 10 miles southwest of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td>Accipiter cooperii</td>
<td>Accipiter cooperii</td>
<td>Cooper’s hawk</td>
<td>-</td>
<td>-</td>
<td>WL</td>
<td>Nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires adjacent agricultural lands and grasslands for foraging.</td>
<td>Breeding range includes the Central Valley and other lowland areas of California west of the Cascade–Sierra Nevada axis.</td>
<td>Could occur; there are 2 records of this species adjacent to the Planning Area along the eastern and northern boundaries in marsh and blackberry bramble nesting habitat, respectively (CDFW 2019b). There are 73 eBird observations of this species within or near the Planning Area between 2014 and 2019 (Levatich and Pedilla 2019).</td>
</tr>
<tr>
<td>(nesting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires adjacent agricultural lands and grasslands for foraging.</td>
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</tr>
<tr>
<td>Agelaius tricolor</td>
<td>Agelaius tricolor</td>
<td>tricolored blackbird</td>
<td>-</td>
<td>ST</td>
<td>SSC</td>
<td>Nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires adjacent agricultural lands and grasslands for foraging.</td>
<td>Breeding range includes the Central Valley and other lowland areas of California west of the Cascade–Sierra Nevada axis.</td>
<td>Could occur; there are 2 records of this species adjacent to the Planning Area along the eastern and northern boundaries in marsh and blackberry bramble nesting habitat, respectively (CDFW 2019b). There are 73 eBird observations of this species within or near the Planning Area between 2014 and 2019 (Levatich and Pedilla 2019).</td>
</tr>
<tr>
<td>(nesting colony)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires adjacent agricultural lands and grasslands for foraging.</td>
<td>Breeding range includes the Central Valley and other lowland areas of California west of the Cascade–Sierra Nevada axis.</td>
<td>Could occur; there are 2 records of this species adjacent to the Planning Area along the eastern and northern boundaries in marsh and blackberry bramble nesting habitat, respectively (CDFW 2019b). There are 73 eBird observations of this species within or near the Planning Area between 2014 and 2019 (Levatich and Pedilla 2019).</td>
</tr>
</tbody>
</table>
## Table 4.8-3  Special-Status Wildlife Species with Potential to Occur Within the Planning Area

<table>
<thead>
<tr>
<th>Species</th>
<th>Listing Status¹</th>
<th>Habitat Requirements</th>
<th>Distribution</th>
<th>Potential for Occurrence in the Planning Area²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ammodramus savannarum</strong></td>
<td>-</td>
<td>Forages and nests in dense grasslands; favors a mix of native grasses, forbs, and scattered shrubs. Nests in depressions on the ground at the bases of grass clumps.</td>
<td>Occurs in California primarily as a summer resident from Mendocino, Trinity, and Tehama counties south, west of the Cascade–Sierra Nevada axis and southeastern deserts, to San Diego County, from sea level to 4,900 feet (amsl).</td>
<td><strong>Could occur:</strong> suitable habitat is present in the Planning Area. There are two records within 10 miles of the Planning Area, in rolling vernal pool grasslands near Lincoln and Folsom (CDFW 2019b). There are no records of this species in the eBird database for the past 5 years (Levatich and Pedilla 2019).</td>
</tr>
<tr>
<td>(nesting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquila chrysaetos</strong></td>
<td>-</td>
<td>Nests in rugged, open habitats with canyons and escarpments, typically on cliffs and rock outcroppings; however, will also nest in large trees in open areas, including oaks, sycamores, redwoods, pines, and eucalyptus, overlooking open hunting habitat.</td>
<td>Uncommon permanent resident and migrant throughout California, except in the center of the Central Valley.</td>
<td><strong>Not likely to occur:</strong> no suitable nesting habitat (steep slopes, cliffs, or large trees overlooking hunting areas) present in the Planning Area. There are only 2 records of nesting golden eagles within a 19-quad search radius, both of which are from a steep west-facing hillside near El Dorado Hills, approximately 8 miles southeast of the Planning Area (CDFW 2019b). Potential foraging habitat present, and species may occur as a fly over. There are 7 recorded observations of individual golden eagles in the eBird database within and near the Planning Area (Levatich and Pedilla 2019).</td>
</tr>
<tr>
<td>(nesting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asio flammeus</strong></td>
<td>-</td>
<td>Usually found in grasslands, dunes, meadows, and saline and fresh emergent wetlands with low perches. Nests on the ground in vegetation.</td>
<td>Breeding range includes coastal areas in Del Norte and Humboldt counties, the San Francisco Bay Delta, northeastern Modoc plateau, the east side of the Sierra from Lake Tahoe south to Inyo county, and the San Joaquin valley.</td>
<td><strong>Could occur:</strong> the Planning Area is outside of the known breeding range of this species and there are no CNDDB records of this species in a 19-quad search radius (CDFW 2019b). However, there are 7 records of short-eared owl from within 2 miles of the Planning Area in annual grassland/vernal pool complexes to the south and east, 6 of which were during the non-breeding season (December – February) and one from April (Levatich and Pedilla 2019).</td>
</tr>
<tr>
<td>(nesting)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ **Listing Status:**
- Federal (F)
- State (S)
- CDFW (SC)

² **Potential for Occurrence in the Planning Area:**
- Could occur: suitable habitat is present in the Planning Area.
- Not likely to occur: no suitable nesting habitat present.
- Could occur: the Planning Area is outside of the known breeding range of this species.
<table>
<thead>
<tr>
<th>Scientific Name</th>
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</tr>
</thead>
</table>
| *Athene cunicularia*  
*(burrow sites and some wintering sites)* | Western burrowing owl | - | - | SSC | Nests and forages in grasslands, agricultural lands, open shrublands, and open woodlands with existing ground squirrel burrows or friable soils. | Broadly distributed in western North America; year-round resident throughout much of California. | Known to occur; suitable habitat is present in the Planning Area in grasslands and agricultural areas. Species detected within the Sierra Vista Planning Area (City of Roseville 2010) and the West Roseville Specific Plan Area (City of Roseville 2004). There are also two records of this species within 2 miles to the northwest of the Planning Area in grazed annual grassland and vernal pool habitats (CDFW 2019b). |
| *Buteo regalis*  
*(wintering)* | Ferruginous hawk | - | - | WL | Open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitat. | Uncommon winter resident and migrant in the Modoc Plateau, Central Valley, and Coast Ranges; common winter resident in southwestern California. | Known to occur; there are 31 observations of this species from within and adjacent to the planning area during the winter months of 2014, 2015, and 2018 (Levatich and Padilla 2019). Nearest CNDDB record is from grazed annual grassland approximately 10 miles southeast of the Planning Area (CDFW 2019b). |
| *Buteo swainsoni*  
*(nesting)* | Swainson’s hawk | - | ST | Nests in riparian forest and isolated trees, open woodlands, and woodland margins; forages in grasslands and agricultural fields. | Breeds in California’s Central Valley and in the Great Basin area of northeastern California, with a few territories located in Shasta Valley, the Owens Valley, and the Mohave Desert. | Known to occur; suitable nesting and foraging habitat are present and numerous occurrences documented throughout Planning Area, including a nesting pair observed in 2007 in the Sierra Vista Specific Plan Area (City of Roseville 2010) and in the Creekview Specific Plan Area in 2007-2008 (City of Roseville 2011a). Species also observed foraging during surveys in the West Roseville Specific Plan Area (City of Roseville 2004). There are 9 records of this species within 2 miles of the Planning Area, with nests recorded in oak, willow, and eucalyptus trees (CDFW 2019b). |
Table 4.8-3  Special-Status Wildlife Species with Potential to Occur Within the Planning Area

<table>
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<tr>
<th>Scientific Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Circus hudsonius (nesting)</td>
<td>northern harrier</td>
<td>-</td>
<td>Nests and forages in grasslands, agricultural fields, and marshes. Nests on the ground within patches of dense, often tall, vegetation in undisturbed areas. Breeds from sea level to 5700 feet (amsl) in the Central Valley and Sierra Nevada, and up to 3600 feet in northeastern California.</td>
<td>Known to occur; the Planning Area is within the breeding range of the species, and suitable nesting and foraging habitat are present in the Planning Area. Species observed foraging in the West Roseville, Sierra Vista, and Creekview Specific Plan Areas (City of Roseville 2004, 2010, 2011a).</td>
</tr>
<tr>
<td>Coccyzus americanus occidentalis (nesting)</td>
<td>western yellow-billed cuckoo</td>
<td>FT SE</td>
<td>Nests in large blocks of deciduous riparian thickets or forests with dense, low-level or understory foliage adjacent to slow-moving watercourses, backwaters along broad, lower floodplains of larger river systems. Willow and cottonwood are almost always a component of the vegetation. In the Sacramento Valley, also utilizes adjacent walnut orchards. In California, the western yellow-billed cuckoo’s breeding distribution is restricted to isolated sites in the Sacramento, Amargosa, Kern, Santa Ana, and Colorado River Valleys.</td>
<td>Not likely to occur; the Planning Area is outside of the known breeding range of this species. Potential stopover during the non-breeding season. There are no eBird observations of this species within or near the Planning Area (Levatich and Pedilla 2019).</td>
</tr>
<tr>
<td>Elanus leucurus (nesting)</td>
<td>white-tailed kite</td>
<td>-</td>
<td>Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees. Yearlong resident in coastal and valley lowlands of California.</td>
<td>Known to occur; suitable foraging and nesting habitat is present in the Planning Area, and there is one record of the species from within the Planning Area, in oak woodland habitat along the west bank of Pleasant Grove Creek (CDFW 2019b). Two nests were observed in 2008 during surveys in the Creekview Specific Plan Area (City of Roseville 2011a). Species observed foraging during surveys conducted in the West Roseville and Sierra Vista Specific Plan Areas (City of Roseville 2004, 2010).</td>
</tr>
<tr>
<td>Species</td>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Listing Status</td>
<td>Habitat Requirements</td>
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<td></td>
<td></td>
<td></td>
<td>Federal</td>
<td>State</td>
</tr>
<tr>
<td>Falco peregrinus anatum (nesting)</td>
<td>American peregrine falcon</td>
<td>FD</td>
<td>SD</td>
<td>FP</td>
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<td></td>
</tr>
<tr>
<td>Haliaeetus leucocephalus (nesting and wintering)</td>
<td>bald eagle</td>
<td>FD</td>
<td>SE</td>
<td>FP</td>
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</tr>
<tr>
<td>Lanius ludovicianus (nesting)</td>
<td>loggerhead shrike</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
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<tr>
<td>Laterallus jamaicensis coturniculus (year-round)</td>
<td>California black rail</td>
<td>-</td>
<td>ST</td>
<td>FP</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Listing Status1</td>
<td>Federal</td>
<td>State</td>
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<tr>
<td><em>Melospiza melodia</em> (year-round)</td>
<td>song sparrow (“Modesto” population)</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
</tr>
<tr>
<td><em>Numenius americanus</em> (nesting)</td>
<td>Long-billed curlew</td>
<td>-</td>
<td>-</td>
<td>WL</td>
</tr>
<tr>
<td><em>Progne subis</em> (nesting)</td>
<td>purple martin</td>
<td>-</td>
<td>-</td>
<td>SSC</td>
</tr>
<tr>
<td><em>Riparia</em> (nesting)</td>
<td>bank swallow</td>
<td>-</td>
<td>ST</td>
<td>-</td>
</tr>
</tbody>
</table>
### Table 4.8-3 Special-Status Wildlife Species with Potential to Occur Within the Planning Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status¹</th>
<th>Federal</th>
<th>State</th>
<th>CDFW</th>
<th>Habitat Requirements</th>
<th>Distribution</th>
<th>Potential for Occurrence in the Planning Area²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Individuals roost in rock crevices, cliffs, caves, mines, and hollows of oaks and redwoods, and under sloughing bark, and human structures (e.g., bridges, buildings).</td>
<td>Low elevations in California from Shasta to Kern Counties, and the northwestern corner of the state from Del Norte and western Siskiyou Counties to northern Mendocino County.</td>
<td>Could occur; suitable roost habitat (oak trees and human structures in grassland and woodland) is present in the Planning Area. There is one record of the species within 2 miles southeast of the Planning Area in Folsom (CDFW 2019b).</td>
</tr>
<tr>
<td><em>Antrozous pallidus</em></td>
<td>pallid bat</td>
<td>-</td>
<td>-</td>
<td></td>
<td>SSC</td>
<td>Uncommon colonial bat associated with coniferous forests, mixed mesophytic forests, deserts, agricultural areas, native prairies, riparian communities, and coastal habitat types; individuals typically roost in caves and mines, but also in basal hollows of large trees and human structures (e.g., bridges, buildings).</td>
<td>Throughout California in a wide variety of habitats, except for subalpine and alpine habitats. Most abundant in mesic habitats.</td>
<td>Could occur; suitable roost habitat (human structures in agricultural and riparian areas) is present in the Planning Area. The nearest record of this species is from an abandoned mine near Dutch Ravine, approximately 8 miles northeast of the Planning Area (CDFW 2019b).</td>
</tr>
<tr>
<td><em>Corynorhinus townsendii</em></td>
<td>Townsend’s big-eared bat</td>
<td>-</td>
<td>-</td>
<td></td>
<td>SSC</td>
<td>Wide variety of habitats from sea level to 11,000 feet; optimal habitats are open forests and woodlands with sources of water. Roosts in buildings, mines, caves, or crevices; also abandoned swallow nests and under bridges. Forms large maternity colonies of several thousand females.</td>
<td>Common and widespread throughout California.</td>
<td>Could occur; suitable roosting (buildings and bridges) and foraging (woodlands near open water) habitats are present in the Planning Area. However, there are no records of the species within a 19-quad search radius (CDFW 2019b).</td>
</tr>
<tr>
<td><em>Myotis yumanensis</em></td>
<td>Yuma myotis</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>Wide variety of habitats from sea level to 11,000 feet; optimal habitats are open forests and woodlands with sources of water. Roosts in buildings, mines, caves, or crevices; also abandoned swallow nests and under bridges. Forms large maternity colonies of several thousand females.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Listing Status</td>
<td>Habitat Requirements</td>
<td>Distribution</td>
<td>Potential for Occurrence in the Planning Area</td>
<td></td>
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<tr>
<td><em>Taxidea taxus</em></td>
<td>American badger</td>
<td>-</td>
<td>Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils; generally associated with treeless regions, prairies, parklands, and desert areas. Needs open, uncultivated land.</td>
<td>Found throughout most of California, except in the northern North Coast area.</td>
<td>Could occur; suitable habitat (dry open grassland with friable soils) present in the Planning Area. Nearest record is from annual grassland habitat near the city of Rancho Cordova, approximately 11 miles south of the Planning Area (CDFW 2019b).</td>
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</tbody>
</table>

Notes:
*Because the distribution and abundance of individual bird species varies seasonally, the season, or life phase, during which the species is of conservation concern in California is provided in parentheses beneath the bird species scientific name. There is potential for any of these bird species to fly over or pass through the Planning Area, however, these species would not be at risk of adverse effects unless nesting on or otherwise residing in the Planning Area during the season or life phase when the species is of conservation concern in California.

1Listing Status:
Federal Endangered Species Act:
FE = endangered
FT = threatened
FD = delisted
- = no status

Federal—National Marine Fisheries Service:
SC = species of concern

State Endangered Species Act:
SE = endangered
SCE = candidate endangered
ST = threatened
SD = delisted
SR = rare
- = no status

CDFW:
SSC = species of special concern
FP = fully protected
WL = Watch List
- = no status

2Potential for Occurrence:
No Potential to Occur: The Planning Area is outside the species’ range or suitable habitat for the species is absent from the Planning Area and adjacent areas.

Not Likely to Occur: The Planning Area is within the species’ range, no occurrences of the species have been recorded within or immediately adjacent to the Planning Area, and either habitat for the species is marginal or potentially suitable habitat may occur, but the species’ current known range is restricted to areas outside of the Planning Area.

Could Occur: The Planning Area is within the species’ range, and no occurrences of the species have been recorded within the Planning Area; however, suitable habitat for the species is present and recorded occurrences of the species are generally present in the vicinity.

Known to Occur: The Planning Area is within the species’ range, suitable habitat for the species is present, and the species has been recorded from within the project site.

Designated critical habitat for steelhead includes the portion of Dry Creek that runs through the southern extent of the Planning Area; no other critical habitats occur within the Planning Area (Exhibit 4.8-3). Other designated critical habitat in the region includes that for Sacramento Orcutt grass, approximately 4.2 miles to the south, and vernal pool fairy shrimp, approximately 4.7 miles to the north (USFWS 2019b).

Based on database search results and wildlife surveys in the Planning Area, the following special-status species are known to occur in or adjacent to the Planning Area: vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, Chinook salmon – Central Valley fall/late-fall run evolutionarily significant unit (ESU), Steelhead - Central Valley distinct population segment (DPS), western spadefoot toad, western pond turtle, giant garter snake, tricolored blackbird, grasshopper sparrow, western burrowing owl, Swainson’s hawk, northern harrier, white-tailed kite, loggerhead shrike, California black rail, song sparrow (Modesto population), purple martin, pallid bat, Townsend’s big-eared bat, and American badger. The life history and ecology of special-status species known or with potential to occur in the Planning Area is discussed further below. Heron/egret rookeries and nesting birds are also protected and discussed further below. The following species are not discussed further because they and/or suitable habitats are absent from the Planning Area: conservancy fairy shrimp, western bumble bee, Chinook salmon – Central Valley spring-run ESU, longfin smelt, Sacramento splittail, foothill yellow-legged frog, California red-legged frog, golden eagle, short-eared owl, western yellow-billed cuckoo, American peregrine falcon, bald eagle, and bank swallow.

**Vernal Pool Fairy Shrimp**

Vernal pool fairy shrimp is a federally threatened species under FESA. Vernal pool fairy shrimp are known to occur mainly in California’s Central Valley and coastal ranges from Shasta County in the north to Tulare County in the south. A population of Jackson County, Oregon was discovered in 1998. Vernal pool fairy shrimp occur primarily in small, clear-water sandstone-depression vernal pools and grassed swales or basalt-flow depression vernal pools that fill with water during fall and winter rains and dry up in the spring and summer. They typically hatch when the first rains of the season fill the vernal pools and mature in about 41 days under typical winter conditions. Adult fairy shrimp live only for a single season, while there is water in the pools, and toward the end of their brief lifetime, females produce thick-shelled eggs or cysts. During the summer, these cysts become buried in the dried bottom mud of the vernal pools, and during the winter, they are frozen for varying lengths of time.

These cysts hatch when the rains come again in the fall and winter (USFWS 2019d). Vernal pool fairy shrimp eat algae and plankton. Suitable habitat is present and there are 26 records of the species from within and adjacent to the Planning Area (CDFW 2019b). In addition, this species has been detected in several open space preserves within the Planning Area (City of Roseville 2011b), and from within the Amoruso Ranch and Creekview Specific Plan Areas (City of Roseville 2016, 2011a).

**Vernal Pool Tadpole Shrimp**

Vernal pool tadpole shrimp is a federally endangered species under FESA. Vernal pool tadpole shrimp are known to occur in California’s Central Valley and the San Francisco Bay and southern Oregon; however, most individuals are found in the Sacramento Valley. Vernal pool tadpole shrimp occur in vernal pools, seasonal wetlands, and alkaline pools. They have a similar life cycle as the vernal pool fairy shrimp. Vernal pool tadpole shrimp hatching is temperature dependent and is optimal between 50 to 59 degrees Fahrenheit. Vernal pool tadpole shrimp eat organic detritus, fairy shrimp, and other invertebrates (USFWS 2007). Suitable habitat is
present within the Planning Area, and there is one record of this species from within the Planning Area that is now possibly extirpated (CDFW 2019b).

**Valley Elderberry Longhorn Beetle**

Valley elderberry longhorn beetle is a federally threatened species under FESA. Valley elderberry longhorn beetle is known to occur throughout the Central Valley from southern Shasta County to Fresno County including the valley floor and lower foothills, usually below 500 feet (amsl) in elevation. This species is almost always found on or close to its host plant, red or blue elderberry (*Sambucus* species). Females lay their eggs on the bark of the elderberry bush, and the larvae hatch and burrow into the stems. The larval stage can last two years, after which they become pupae and then transform into adult beetles. Adults are active from March to June, breeding and eating (USFWS 2019e). This species has been documented within the Planning Area in the Stoneridge Cavitt Ranch/Vista Oaks preserve (City of Roseville 2019). There are another five records of this species within 2 miles east of the Planning Area, in riparian habitats associated with Secret Ravine, Linda Creek, and the shore of Folsom Lake (CDFW 2019b).

**Chinook Salmon – Central Valley Fall/Late-Fall Run Evolutionarily Significant Unit**

Chinook Salmon (Central Valley fall/late-fall run Evolutionarily Significant Unit [ESU]) is a federal species of concern and a State species of special concern. California rivers and streams support the southern-most Chinook Salmon runs. The most abundant populations of fall-run Chinook salmon occur in the Sacramento, Feather, Yuba, and American Rivers. The ESU also occurs in smaller tributaries of the Sacramento River and in tributaries of the San Joaquin River. Chinook salmon are anadromous fish that migrate upstream as adults to spawn in freshwater rivers and streams and migrate downstream to the ocean as juveniles to grow and mature at sea (CDFW 2019d). Fall-run Chinook salmon migrate to Central Valley rivers from approximately July to December. Peak spawning for fall-run spawning fish occurs during late October and November. This species has been detected in Dry Creek and its tributaries (Miners Ravine, Secret Ravine, Antelope Creek, Linda/Cirby Creek) from 2003 – 2008 (PCCP 2018).

**Steelhead – Central Valley DPS**

Steelhead (Central Valley DPS) is a Salmonidae and is a federally threatened species under FESA. This DPS includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries. They require cool, clear streams with abundant cover and well-vegetated banks, with relatively stable flows, pool and riffle complexes and cold gravelly streambeds for spawning. They are anadromous fish that are born in fresh water streams where they spend one to three years, and then emigrate to the ocean where they grow to adults, and after one to four years return to their natal fresh water stream to spawn (USFWS 2019f). Steelhead have been detected in mainstem Dry Creek, which is used as a migratory corridor, with spawning and rearing habitat upstream in Secret Ravine and Miners Ravine (CDFW 2019b).

**Western Spadefoot Toad**

Western spadefoot toad is a State species of special concern. Endemic to California and northern Baja California, Western spadefoot toads range from near Redding south through the Central Valley and its associated foothills, through the South Coast Ranges into coastal southern California into coastal Baja California. They are found from near sea level up to 4,500 feet (amsl) in elevation. Western spadefoot toads are mostly terrestrial and occur primarily in grassland habitats, but can be found in valley-foothill hardwood woodland, spending time in water
only to breed. They live in hot, dry environments and spend most of their life buried underground in burrows. They become active during seasonally wet weather and rainfall, typically between October to May, and breed in vernal pools and other temporary rain pools, typically between January and May. Eggs are laid in groups of 10-42 and are attached to underwater vegetation. Eggs hatch anywhere from a little over half a day to six days later into tadpoles. Tadpoles transform into toads in 4-11 weeks, depending on food availability and duration of the seasonal pool (CalHerps 2019a). Western spadefoot toad is known to occur within the Planning Area and there are five records of this species from within the Planning Area in vernal pool and seasonal wetland habitats (CDFW 2019b).

**Western Pond Turtle**

Western pond turtle is a State species of special concern. Their range includes north of the San Francisco Bay area plus populations from the Central Valley north into Oregon and Washington and an apparently introduced population in Nevada. Western pond turtles are found from sea level to approximately 6,696 feet (amsl) in elevation. They are found in rivers, streams, creeks, ponds, marshes, irrigation ditches, damp woodland and forest, and grassland. The turtles require logs, rocks, vegetation mats, or exposed banks to bask in the sun. Adult males do not mate until they are approximately eight to 10 years old. Mating occurs in April and May and females lay their eggs between April and August in upland habitat, usually along stream or pond margins. Their diet consists of aquatic plants, invertebrates, worms, frog and salamander eggs and larvae, crayfish, carrion, and occasionally frogs and fish (CalHerps 2019b). Suitable aquatic habitat for western pond turtle occurs throughout the Planning Area and they have potential to occur. The nearest record of the species is approximately two miles to the east, in wetland habitat near Folsom Lake (CDFW 2019b).

**Giant Garter Snake**

Giant garter snake is a State and federally threatened species under CESA and FESA. Endemic to California, currently this snake ranges from Glenn County to the southern edge of the San Francisco Bay Delta, and from Merced County to northern Fresno County in the San Joaquin Valley. The elevational range of this snake is from sea level to 400 feet (amsl). Giant garter snake is found primarily in marshes, sloughs, drainage canals, and irrigation ditches, especially around rice fields, and occasionally in slow-moving creeks (CalHerps 2019c). During the spring and summer, giant garter snake can be found in vegetated upland areas within 200 feet of suitable aquatic habitat. The giant garter snake uses upland habitat for basking, cover, and mammal burrows and crevices in the soil to escape predation and during ecdysis (shedding of skin). In the fall, around October 1, giant garter snakes move underground into mammal burrows, crevices, or other voids in the ground to avoid potentially lethal cool autumn and winter temperatures. Around April 1, and as early as March 1 in some years and locations, giant garter snakes begin to emerge from overwintering sites and start to forage for food and start to breed. Breeding season occurs from March through April and females give birth to live young from late July through early September (USFWS 2019g). There are no records of giant garter snake occurrence in western Placer County and it is believed that its original habitat in the vast marshes around the Sacramento River did not extend east into what is now Placer County; however, giant garter snake has been recorded frequently in neighboring Sutter and Sacramento counties (PCCP 2018). Therefore, giant garter snake is not likely to occur within the Planning Area and is not discussed further.
**Tricolored Blackbird**

Tricolored blackbird is a state threatened species under CESA and is under review to list as endangered under FESA. Tricolored blackbirds are a permanent resident in California but make extensive migrations and movements within their range during both the breeding season and in winter. In California, tricolored blackbird breeding occurs in the Sacramento and San Joaquin valleys, the foothills of the Sierra Nevada south to Kern County, the coastal slope from Sonoma County south to the Mexican border, and sporadically on the Modoc Plateau. Colonies vary in size from a minimum of about 50 nests to over 20,000 in an area of 10 acres or less. Breeding colonies require a nearby source of water, suitable nesting substrate (such as marshes, riparian scrub and other areas that support cattails or dense thickets of shrubs or herbs), and natural grassland, woodland, or agricultural cropland in which to forage. Preferred foraging habitats include crops such as rice, alfalfa, irrigated pastures, and ripening or cut grain fields, as well as annual grasslands, cattle feedlots, and dairies. Tricolored blackbirds also forage in more natural habitats, including wet and dry vernal pools and other seasonal wetlands, riparian scrub, and open marsh borders (USFWS 2019h). Although no records of this species have been documented within the Planning Area, suitable habitat for tricolored blackbird occurs. There are two records of this species adjacent to the Planning Area along the eastern and northern boundaries in marsh and blackberry bramble nesting habitat, respectively (CDFW 2019b).

**Grasshopper Sparrow**

Grasshopper sparrow is a State species of special concern. This species is an uncommon and local, summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity counties, south to San Diego County. The grasshopper sparrow occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. Breeding occurs from early April to mid-July and they may form semi-colonial breeding groups of 3–12 pairs, but does not form flocks in winter. This species nests in depressions on the ground at the bases of grass clumps. Grasshopper sparrow feeds primarily on insects, but also eats grass and forb seeds. This species searches for food on the ground and low foliage within relatively dense grasslands (CDFW 2019c). Suitable habitat is present in the Planning Area and there are two records within 10 miles of the Planning Area, in rolling vernal pool grasslands near Lincoln and Folsom (CDFW 2019b).

**Western Burrowing Owl**

Western burrowing owl is a bird of conservation concern by the USFWS and a State species of special concern. Burrowing owls are a year-round resident in most of California, including the Central Valley, San Francisco Bay region, Carrizo Plain, and Imperial Valley. Western burrowing owls primarily inhabit open, dry grassland and desert habitats, and levees adjacent to agricultural areas. Main habitat components include burrows for roosting and nesting, and relatively short vegetation with sparse shrubs and taller vegetation. Burrowing owls most commonly use ground squirrel burrows, but they may also use badger, coyote, and fox holes or dens; or human-made structures such as culverts, piles of concrete rubble, pipes, and nest boxes. This species thrives in highly altered human landscapes. In agricultural areas, burrowing owls nest along roadsides, under water conveyance structures, and near and under runways and similar structures. In urban areas, burrowing owls persist in low numbers in highly developed parcels, busy urban parks, and adjacent to roads with heavy traffic. Burrowing owl is a semi-colonial species that breeds in California from March through August, though breeding can begin as early as February and extend into December. Burrowing owls typically feed on a broad range of insects, small rodents, birds, amphibians, reptiles, and carrion. Foraging usually occurs close to their burrow (CDFW 2019c).
The annual grassland and agricultural areas within and adjacent to the Planning Area provides suitable nesting and foraging habitat for burrowing owl. There are two records of this species within two miles to the northwest of the Planning Area in grazed annual grassland and vernal pool habitats (CDFW 2019b).

**Swainson’s Hawk**

Swainson’s hawk is a State threatened species and is protected under CESA. This species of hawk is an uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Swainson’s hawk breed and forage in the California Central Valley in spring and summer. California populations of this species are believed to overwinter in Mexico. Typical habitat includes open desert, grassland, or cropland containing scattered, large trees or small groves. Swainson’s hawk breeds from late March to late August. Swainson’s hawk nest in open riparian habitat, in scattered trees, or in small groves in sparsely vegetated flatlands. Nesting areas are usually located near water but are occasionally found in arid regions. They forage in adjacent grasslands, suitable grain or alfalfa fields, or in livestock pastures, feeding on rodents, small mammals, small birds, reptiles, large arthropods, amphibians, and rarely, fish (CDFW 2019c). Suitable nesting and foraging habitat are present and numerous occurrences documented throughout Planning Area. There are nine records of this species within two miles of the Planning Area, with nests recorded in oak, willow, and eucalyptus trees (CDFW 2019b).

**Northern Harrier**

Northern harrier is a State species of special concern. This raptor is a permanent resident of the northeastern plateau and coastal areas of California, but is a less common resident of the Central Valley. Northern harrier occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 10,000 feet (amsl). This species breeds from sea level to 5,700 feet (amsl) in the Central Valley and Sierra Nevada, and up to 3,600 feet (amsl) in northeastern California. This species frequents meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands; however, it is seldom found in wooded areas. Northern harrier nest on the ground within patches of dense, often tall, vegetation in undisturbed areas. (CDFW 2019c). Suitable nesting and foraging habitat for Northern harrier exists in the annual grasslands, wetlands, and agricultural areas within and adjacent to the Planning Area.

**White-tailed Kite**

White-tailed kite is a fully protected species under Section 3511 of the CDFG Code. White-tailed kites are a year-round resident of coastal and valley lowlands in cismontane California; they are absent from higher elevations in the Sierra Nevada, the Modoc Plateau, and from most desert regions. White-tailed kites occur in herbaceous and open stages of most habitats in cismontane California, and areas of substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting. White-tailed kites breed from February to October, with peak activity from May to August. Nests are typically located 20 to 100 feet above the ground near the top of dense oak, willow, or other tree stands, and are often located near an open foraging area with a dense population of voles (CDFW 2019c). Riparian areas and open space preserves within and adjacent to the Planning Area provide suitable habitat for nesting; and annual grasslands, wetlands, and agricultural areas within and adjacent to the Planning Area provide suitable habitat for foraging for the white-tailed kite. There is one CNDDB record of the species from within the Planning Area, in oak woodland habitat along the west bank of Pleasant Grove Creek (CDFW 2019b).
**Loggerhead Shrike**

Loggerhead shrike is a bird of conservation concern by the USFWS and a State species of special concern. Loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. This species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Loggerhead shrike occurs only rarely in heavily urbanized areas, but is often found in open cropland and sometimes uses edges of denser habitats. This passerine begins breeding in February and may continue with raising a second brood as late as July. It feeds mostly on large insects, but also eats small birds, amphibians, reptiles, and small rodents over open ground within areas of short vegetation, usually by impaling prey on thorns, wire barbs, or sharp twigs to cache for later feeding (CDFW 2019c). Suitable habitat for this species occurs within and adjacent to the Planning Area in annual grassland and agricultural areas.

**California Black Rail**

California black rail is a federal species of management concern and a State threatened and fully protected species. Its range includes the San Francisco Bay area, Sacramento-San Joaquin Delta, coastal southern California at Morro Bay, and a few other locations, such as the Salton Sea and lower Colorado River area. Habitat for this elusive small bird include freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. This species needs water depths of about one inch that do not fluctuate during the year and dense vegetation for nesting habitat (CDFW 2019c). Freshwater marsh habitat in the Planning Area may provide suitable habitat, especially in the northern and western portions of the Planning Area. This species was detected in Placer County in perennial wetland habitats north of the Planning Area (PCCP 2018).

**Song Sparrow (“Modesto” population)**

Song sparrow is a State species of special concern. This species is found throughout most of California, except for higher mountains, and occurs only locally in southern deserts. The song sparrow nests and forages primarily in emergent marsh, riparian scrub, and early successional riparian forest habitats in the north-central portion of the Central Valley; infrequently in mature riparian forest and sparsely vegetated ditches and levees. The song sparrow forages primarily on exposed ground or in leaf litter and seeds are the most important foods in their annual diet; but insects, spiders, and other small invertebrates make up half of the diet in the nesting season (CDFW 2019c). Suitable marsh and riparian habitat is present in the Planning Area. The nearest record is from Yankee Slough, approximately 10 miles north of the Planning Area in willow thickets surrounding a marsh (CDFW 2019b).

**Purple Martin**

Purple martin is a State species of special concern. This species is an uncommon to rare local summer resident throughout California and generally absent from higher desert regions and higher slopes of the Sierra Nevada. Purple martin nests in old woodpecker cavities mostly, and sometimes in human-made structures such as in nesting boxes, under bridges, and in culverts. This species forages in foothill and low montane oak and riparian woodlands, and less frequently in coniferous forests and open or developed habitats. Suitable foraging habitat exists in the form of oak woodland habitat, however, due to competition with other cavity-nesting bird species, particularly non-native invasive European starlings, suitable nesting habitat in the Sacramento Valley is restricted to manmade structures, particularly bridges (CDFW 2019c). This species was detected nesting in weepholes in the State Route 65 overpass within the Planning Area in 2007 (CDFW 2019b).
Heron/Egret Rookeries

The great egret (Ardea alba), great blue heron (Ardea herodias), snowy egret (Egretta thula), and black-crowned night heron (Nycticorax nycticorax) are colonial nesting birds that typically nest in trees and/or riparian areas in rookeries. While these species are not formally listed and protected pursuant to either CESA or FESA, their rookeries are of interest to CDFW and are subject to CEQA review. These birds are also protected under the federal Migratory Bird Treaty Act (MBTA). Rookeries can have hundreds of individual nests. Rookery sites have the potential to occur in riparian areas and open space preserves throughout the Planning Area, especially in the open space and preserves, including the Al Johnson Wildlife Area (Reason Farms).

Nesting Birds

Nesting birds and their nests are protected under the California Fish and Game Code (FGC) §3503. All birds in the orders Falconiformes and Strigiformes (collectively known as birds of prey) are also protected by FGC §3503.5. Birds of prey include raptors, falcons, and owls. The federal MBTA of 1918 (16 United States Code [U.S.C.] 703-711) also protects most birds and their nests, including many birds that are non-migratory in California. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a ‘take’ of the species under federal law. The Planning Area and adjacent areas provide nesting and foraging habitat for birds protected under MBTA and/or FGC.

Pallid Bat

The pallid bat is a State species of special concern. This bat is a locally common species of low elevations in California and occurs throughout the state except for the high Sierra Nevada from Shasta to Kern counties, and the northwestern corner of the state from Del Norte and western Siskiyou counties to northern Mendocino county. The pallid bat inhabits grasslands, cottonwood-riparian zones, juniper woodlands, and low desert shrublands. It needs open, dry areas with rocky areas for roosting, or may also roost in abandoned, man-made structures. Pallid bats are colonial and typically have 30-70 animals in a colony. Pallid bats breed in the fall or winter and give birth in early summer. They forage on a wide variety of insects and arachnids over open ground usually 1.6 to 8 feet above ground level (CDFW 2019c). Suitable roosting habitat for the pallid bat is distributed throughout the Planning Area in oak trees and man-made structures in grasslands and woodlands. There is an abundance of open, grassland areas adjacent to the Planning Area, as well as some within the Planning Area. There are also riparian zones within the Planning Area. Due to the large range size of this species, the entire Planning Area is located within suitable habitat for the species, except for disturbed and developed areas that would lack a prey base. There is one record of the species within two miles southeast of the Planning Area in Folsom (CDFW 2019b).

Townsend’s Big-Eared Bat

Townsend’s big-eared bat is a State species of special concern. This uncommon bat occurs throughout California in a wide variety of habitats, except for subalpine and alpine habitats and is most abundant in mesic habitats. Townsend’s big-eared bat is a colonial bat associated with coniferous forests, mixed mesophytic forests, deserts, agricultural areas, native prairies, riparian communities, and coastal habitat types. Individuals typically roost in caves and mines, but also in basal hollows of large trees and human structures, such as bridges and buildings.
Suitable roost habitat (human structures in agricultural and riparian areas) is present in the Planning Area. The nearest record of this species is from an abandoned mine near Dutch Ravine, approximately eight miles northeast of the Planning Area (CDFW 2019b).

**American Badger**

The American badger is a State species of special concern. This Mustelidae mammal is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast area that occupies open, uncultivated habitats. It occurs primarily in grasslands, parklands, farms, and other treeless areas with friable soil and a supply of rodent prey. It is also found in forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows. It is sometimes found at elevations up to 12,000 feet, but is usually found at elevations lower and warmer than those characterized by coniferous forests. American badgers are occasionally found in open chaparral (with less than 50-percent plant cover) and riparian zones. American badgers create burrows for sleeping and concealment, protection from weather, and natal dens. Breeding generally occurs between December and February, and cubs are born between March and April. Badgers are carnivorous and eat fossorial rodents, such as rats, mice, chipmunks, and especially ground squirrels and pocket gophers. They also eat some reptiles, insects, earthworks, eggs, and birds (CDFW 2019c). The Planning Area is located within the range of American badger. Suitable habitat occurs in undeveloped areas, grasslands, and open spaces throughout the Planning Area. The nearest record is from annual grassland habitat near Rancho Cordova, approximately 11 miles south of the Planning Area (CDFW 2019b).

### 4.8.3 Regulatory Framework

#### 4.8.3.1 Federal

**Endangered Species Act, 16 U.S.C. Section 1531 et seq**

Pursuant to the Endangered Species Act (ESA) (16 U.S.C. Section 1531 et seq.), U.S. Fish and Wildlife Service (USFWS) has regulatory authority over species listed or proposed for listing as endangered or threatened. USFWS and the National Marine Fisheries Service have authority over projects that may result in take of a species listed as threatened or endangered under ESA (i.e., a federally listed species). In general, persons subject to ESA (including private parties) are prohibited from “taking” endangered or threatened fish and wildlife species on private property, and from “taking” endangered or threatened plants in areas under federal jurisdiction or in violation of state law.

Under Section 9 of the ESA, the definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has also interpreted the definition of “harm” to include significant habitat modification that could result in take.

The take prohibition of ESA Section 9 applies only to listed species of fish and wildlife. Section 9(a)(2)(B) describes federal protection for endangered plants. In general, ESA does not protect listed plants located on nonfederal land (i.e., areas not under federal jurisdiction), unless such species are already protected by state law.

Section 7 of the ESA outlines procedures for federal interagency cooperation to protect and conserve federally listed species. Section 7(a)(2) requires federal agencies to consult with USFWS to ensure that they are not
undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroying or adversely modifying designated critical habitat.

For projects where federal action is not involved and take of a listed species may occur, a project proponent may seek an incidental take permit under section 10(a) of the ESA. Section 10(a) of ESA allows USFWS to permit the incidental take of listed species if such take is accompanied by a habitat conservation plan that ensures minimization and mitigation of impacts associated with the take.

**City/U.S. Fish and Wildlife Service MOUs**

In May and August 2000, the City and the USFWS entered into memorandums of understanding (MOUs) to prepare a Habitat Conservation Plan (HCP) or equivalent permit process to minimize the indirect impacts and incidental take of vernal pool species from future City growth. Consistent with this agreement, the City of Roseville, landowners, and the USFWS, the USACE, and the U.S. Environmental Protection Agency (EPA) conducted an extensive early consultation process. The groups met on multiple different occasions with the following objective: to reach basic agreement on a land use plan and mitigation strategy that could be permitted under Section 404 of the Clean Water Act (CWA) utilizing a Section 7 Consultation process for ESA compliance. The City worked with the USFWS to assess the status of remaining vernal pool resources within the City, which included several mapping tasks to identify current development trends and remaining vernal pool resources. Based on the information gained through the mapping effort and ongoing dialog and written communication between City and USFWS staff, the USFWS concurred that nearly all remaining undeveloped land containing vernal pools had received federal permits for development through the Clean Water Act 404 process and, therefore, preparation of an HCP or equivalent to address remaining City development would not be necessary. However, the USFWS requested the City standardize the monitoring and maintenance of its system of vernal pool and wetland preserve areas. In response, the City prepared and adopted the City of Roseville Open Space Preserve Overarching Management Plan (OSPOMP).

**Clean Water Act, 33 U.S.C. Section 1251 et seq.**

**Section 404 Permit Program**

Section 404 of the Federal CWA requires a project applicant to obtain a permit from the USACE before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Fill material is material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land, or changing the bottom elevation of any portion of a water of the United States. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; and tributaries to any of these waters. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Potentially jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Wetlands that meet the delineation criteria may be jurisdictional under Section 404 of CWA pending USACE and EPA review.

As part of the review of a project, USACE must ensure compliance with applicable federal laws, including EPA’s Section 404(b)(1) Guidelines. USACE regulations require that impacts to waters of the United States are avoided
and minimized to the maximum extent practicable, and that unavoidable impacts are compensated (33 Code of Federal Regulations [CFR] 320.4[r]).

In 2008, USACE and EPA issued regulations governing compensatory mitigation for activities authorized by permits issued by USACE (33 CFR 332). The rule establishes a preference for the use of mitigation banks because they provide established wetland habitats that have already met success criteria thereby reducing some of the risks and uncertainties associated with compensatory mitigation involving creation of new wetlands that cannot yet demonstrate functionality at the time of project implementation. The rule also establishes a preference for providing compensatory mitigation within the affected watershed. Ideally, compensatory mitigation would take place at a mitigation bank within the same watershed as the waters to be replaced. If mitigation banks are not available within the affected watershed, then compensatory mitigation involving creation or restoration within the affected watershed may be preferable to using a mitigation bank outside the affected watershed.

**Section 401 Water Quality Certification**

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the State’s water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board to the nine Regional Water Quality Control Boards (RWQCBs).

**National Pollutant Discharge Elimination System Permit Program, Section 402**

The National Pollutant Discharge Elimination System (NPDES) permit program was established as part of the CWA to regulate municipal and industrial discharges to surface waters of the U.S. Federal NPDES permit regulations have been established for broad categories of discharges, including point source municipal waste discharges and nonpoint source stormwater runoff. NPDES permits generally identify limits on the concentrations and/or mass emissions of pollutants in effluent discharged into receiving waters; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

More specifically, the discharge prohibitions and limitations in an NPDES permit for wastewater treatment plants are designed to ensure the maintenance of public health and safety, protection of receiving water resources, and safeguarding of the water’s designated beneficial uses. Discharge limitations typically define allowable effluent quantities for flow, biochemical oxygen demand, total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, pH, and toxic pollutants. Limitations also typically encompass narrative requirements regarding mineralization and toxicity to aquatic life.

In November 1990, EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase I of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons. Phase II of the NPDES stormwater permit regulations became effective in March 2003 and required NPDES permits be issued for construction activity for projects that disturb between one and five acres. Phase II of the municipal permit system (i.e., known as the NPDES General Permit for Small Municipal Separate Storm Sewer Systems [Small MS4s], Order NO. 2003-
0005-DWQ as amended by 2013-0001-DWQ) required small municipality areas of less than 100,000 persons to develop stormwater management programs. The City of Roseville Stormwater Management Program (City of Roseville 2004) describes the City’s activities to comply with the NPDES General Permit for Small MS4s.

California’s Regional Water Quality Control Boards (RWQCBs) are responsible for implementing the NPDES permit system.

**Migratory Bird Treaty Act, 16 U.S.C. Section 703, et seq.**

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, et seq.), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA can be found in Title 50 of the CFR, Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

**Plant Protection Act, 7 U.S.C. Section 7701 et seq.**

Introduced in 2000, the Plant Protection Act prevents importation, exportation, and spread of pests that are injurious to plants, and provides for the certification of plants and the control and eradication of plant pests. The Act consolidates requirements previously contained within multiple federal regulations, including the Federal Noxious Weed Act, the Plant Quarantine Act, and the Federal Plant Pest Act.

**Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon**

The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005) was released by USFWS on December 15, 2005. This plan focuses on 33 species of plants and animals that occur exclusively or primarily within vernal pool ecosystems, including the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp.

The plan outlines recovery priorities and provides goals, objectives, strategies, and criteria for recovery. One of the overall objectives of the recovery plan is to promote natural ecosystem processes and functions by protecting and conserving intact vernal pools and vernal pool complexes. Habitat protection under the recovery plan includes the protection of the topographic, geographic, and soil features that support hydrologically interconnected systems of vernal pools, swales, and other seasonal wetlands within an upland matrix that together form hydrologically and ecologically functional vernal pool complexes.

While not regulatory in nature, the Recovery Plan should be taken into consideration when analyzing potential impacts on vernal pools and associated biota to ensure that projects do not prevent or impair the plan’s future long-term implementation success. It is also used by the USFWS to determine recommendations and requirements during endangered species consultation for vernal pool dependent species.

There are two core areas within the Southeastern Sacramento Valley vernal pool region that are within the vicinity of the Planning Area. The Western Placer County core area overlaps a portion of the northwest Planning Area. The Beale core area lies approximately 20 miles north of the City of Roseville Planning Area. Core areas are the specific sites that USFWS has deemed necessary to recover federally endangered and threatened vernal pool
species. The Western Placer County and Beale core areas are ranked in Zone 2. Protection of Zone 2 core areas is important for recovery of some species that are rare and localized, but have significant populations within Zone 2. Protection of Zone 2 core areas is a lower priority than protection of Zone 1 core areas because USFWS believes that within each Zone 1 core area, species occurrences and suitable vernal pool habitat must be protected to prevent extinction or irreversible decline of at least one species covered in the recovery plan. The Western Placer County and Beale core areas have been designated to protect vernal pool fairy shrimp, vernal pool tadpole shrimp, California fairy shrimp, western spadefoot toad, and legenere. The Western Placer County core area has also been designated to protect special-status plants Boggs Lake hedge-hyssop, and Ahart’s dwarf rush (USFWS 2005). Species covered in the Recovery Plan that are known to occur or may occur in the Planning Area consist of Boggs Lake hedge-hyssop, legenere, Ahart’s dwarf rush, vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot toad.

4.8.3.2 STATE

California Endangered Species Act, California Fish and Game Code Section 2050, et seq.

California Endangered Species Act (CESA) directs state agencies not to approve projects that would jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of a species. Furthermore, CESA states that reasonable and prudent alternatives shall be developed by CDFW, together with the project proponent and any state lead agency, consistent with conserving the species, while at the same time maintaining the project purpose to the greatest extent possible. Under CESA, project-related impacts of the authorized take must be minimized and fully mitigated, and adequate funding to implement those mitigation measures and monitor compliance with and the effectiveness of the measures must be ensured. Standard CESA issuance requirements can include land acquisition, permanent protection and management, and/or funding in perpetuity of compensatory lands.

A “take” of a species, under CESA, is defined as an activity that would directly or indirectly kill an individual of a species. The CESA definition of take does not include “harm” or “harass” as is included in the federal act. As a result, the threshold for a take under CESA may be higher than under ESA because habitat modification is not necessarily considered take under CESA. The take of State-listed species incidental to otherwise lawful activities requires a permit, pursuant to Section 2081(b) of CESA. The State has the authority to issue an incidental take permit under California Fish and Game Code Section 2081, or to coordinate with USFWS during the Section 10(a) process to make the federal permit consistent with CESA.

As under federal law, listed plants have considerably less protection than fish and wildlife under California State law. The California Native Plant Protection Act (California Fish and Game Code Section 19000 et seq.) allows landowners to take listed plant species from, among other places, a canal, lateral ditch, building site, or road, or other right-of-way, provided that the owner first notifies CDFW and gives the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed.

Lake and Streambed Alteration Agreement, California Fish and Game Code Section 1602

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated
by CDFW, or use any material from the streambeds, without first notifying CDFW of such activity and obtaining a final agreement authorizing such activity.

“Stream” is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. CDFW’s jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW lake or streambed alteration agreement must be obtained for any project that would result in an impact on a river, stream, or lake.

**Porter-Cologne Water Quality Control Act, California Water Code Section 13000, et seq.**

The Porter-Cologne Act (California Water Code Section 13000, et seq.) requires that each of the state’s nine RWQCBs prepare and periodically update basin plans for water quality control. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. The State Water Resources Control Board’s (SWRCB) and RWQCB’s jurisdiction includes federally protected waters, as well as areas that meet the definition of “waters of the state.” The term “waters of the state” is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally regulated under Section 401 provided they meet the definition of waters of the state. Mitigation requiring no net loss of wetlands functions and values of waters of the state is typically required by the RWQCB.

**Fully Protected Species, California Fish and Game Code Sections 3511, 4700, 5050, and 5515**

Four sections of the California Fish and Game Code (Fish and Game Code Sections 3511, 4700, 5050, and 5515) list 37 fully protected species. These statutes prohibit take or possession at any time of fully protected species. CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species. CDFW has informed nonfederal agencies and private parties that they must avoid take of any fully protected species in carrying out projects.

**Protection of Bird Nests and Raptors, California Fish and Game Code Section 3503 and 3513**

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal and failure of nesting attempts, resulting in loss of eggs and/or young. These violations can be caused by disturbance of nesting pairs by nearby human activity. Section 3513 provides for the adoption of the MBTA’s provisions (above).

**Native Plant Protection Act, California Fish and Game Code Sections 1900-1913**

Prior to enactment of CESA and the federal ESA, California adopted the Native Plant Protection Act (NPPA). The CESA (above) generally replaces the NPPA for plants originally listed as endangered under the NPPA. However, plants originally listed as rare retain that designation, and take is regulated under provisions of the NPPA. The California Fish and Game Commission adopted revisions to the NPPA allowing CDFW to issue incidental take authorization for listed rare plants, effective January 1, 2015.
4.8.3.3 REGIONAL

Placer County Conservation Plan/Natural Community Conservation Plan (Draft)

The Planning Area is located south of the proposed Draft Placer County Conservation Program (PCCP), which applies to western Placer County and specific areas where conservation activities will take place in neighboring Sutter County (PCCP 2018). According to the proposed PCCP, the goal is “to provide an effective framework to protect, enhance, and restore the natural resources in specific areas of western Placer County while streamlining environmental permitting for Covered Activities. Within this framework, the proposed PCCP will achieve conservation goals, comply with state and federal environmental regulations, accommodate anticipated urban and rural growth, and permit the construction and maintenance of infrastructure needed to serve the county’s population.” The proposed PCCP includes three separate, but complimentary, components that support two sets of state and federal permits:

- Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan, referred to as the HCP/NCCP or “Plan.” The Plan is a joint HCP and NCCP that will protect fish and wildlife and their habitats and fulfill the requirements of the federal Endangered Species Act (ESA) and the California Natural Community and Conservation Planning Act (NCCP Act).

- Western Placer County Aquatic Resources Program, referred to as the CARP. The CARP will protect streams, wetlands, and other water resources and fulfill the requirements of the federal CWA and analogous state laws and regulations.

- In-Lieu Fee Program is a program under which compensatory mitigation requirements under Section 404 of the CWA can be fulfilled by payment of a fee. The In-Lieu Fee Program will provide wetland mitigation “credits” that can be used to fulfill Section 404 compensatory mitigation requirements. The In-Lieu Fee Program will provide compensatory mitigation for impacts on aquatic resources for all projects and activities that are covered under the HCP/NCCP and the CARP.

The proposed Placer HCP/NCCP coverage area includes Plan Area A and Plan Area B. Plan Area A, Valley, surrounds the City of Roseville on the south, west, and north sides and is 100,698 acres in total land area. Plan Area B includes “Permittee” activity in non-participating city jurisdictions, including Roseville. The Placer HCP/NCCP is in draft form (PCCP 2018) and is not an approved HCP or NCCP. The Placer HCP/NCCP is intended to serve as a HCP under the ESA and a NCCP under the California Natural Community Conservation Act. The 14 special-status species proposed for coverage under the plan are species that have potential to occur in the plan area that are currently listed as threatened or endangered under ESA or CESA, or that have potential to become listed during the 50-year life of the Plan. These special-status species include the following: vernal pool fairy shrimp, vernal pool tadpole shrimp, conservancy fairy shrimp, valley elderberry longhorn beetle, giant garter snake, western pond turtle, California red-legged frog, foothill yellow-legged frog, Central Valley steelhead, Chinook salmon (Central Valley fall/late fall-run), burrowing owl, tricolored blackbird, California black rail, and Swainson’s hawk.

The Placer HCP/NCCP will allow a “Permittee” to receive incidental take permits under the FESA and CESA for activities and projects they conduct and those under their jurisdiction. The Placer HCP/NCCP will provide a framework to improve conservation of natural resources, including endangered species habitat, while streamlining the permitting process for planned development, infrastructure, and maintenance activities by replacing the
individual project system of permitting and mitigation with a countywide mitigation and conservation program that comprehensively coordinates the implementation of permit requirements. This approach benefits natural resources and project proponents by addressing project effects and mitigation requirements comprehensively in a way that is more efficient and effective for sensitive species and their essential habitats and creating habitat reserves that will be larger in scale, more ecologically valuable, and easier to manage than individual mitigation sites created under the current approach (PCCP 2018).

**Western Placer County Aquatic Resource Program (CARP)**

The Western Placer County Aquatic Resources Program (CARP) is part of the Western Placer County HCP/NCCP and will protect streams, wetlands, and other water resources and fulfill the requirements of the federal CWA and analogous state laws and regulations in a streamlined manner. It will protect aquatic resources by establishing avoidance, minimization, and mitigation requirements for projects that have the potential to impact such resources. These avoidance, minimization, and mitigation requirements are derived from the HCP/NCCP; however, the CARP focuses on aquatic resources specifically and in in some areas, addresses them in greater detail than the HCP/NCCP. An In-lieu Fee Program will provide compensatory mitigation, as required by Section 404 of the Clean Water Act, for impacts on aquatic resources for all projects and activities that are covered under the HCP/NCCP and the CARP (PCCP 2018).

### 4.8.3.4 LOCAL

**Existing City of Roseville General Plan**

The existing General Plan (City of Roseville 2016) includes the following goals and policies to protect biological resources.

**Open Space System Goal 1:** Establish a comprehensive system of public and private open space, including interconnected open space corridors that should include oak woodlands, riparian areas, grasslands, wetlands, and other open space resources.

- **Open Space System Policy 6:** Take into account consideration of natural habitat areas in developing linkages and in preserving open space areas. Identify alternate sites for linkages where sensitive habitat areas have the potential to be adversely impacted.

- **Open Space System Policy 7:** Maximize opportunities for preservation and maintenance of open space resources, including establishment of private open space areas. Consider coordination with non-profit organizations and investigate the potential for conservancy ownership and/or management of open space areas.

**Vegetation and Wildlife Goal 1:** Preserve, protect, and enhance a significant system of interconnected natural habitat areas, including creek and riparian corridors, oak woodlands, wetlands, and adjacent grassland areas.

**Vegetation and Wildlife Goal 2:** Maintain healthy and well-managed habitat areas in conjunction with one another, maximizing the potential for compatible open space, recreation, and visual experiences.

**Vegetation and Wildlife Goal 3:** Protect special-status species and other species that are sensitive to human activities.
Vegetation and Wildlife Policy 1: Incorporate existing trees into development projects, and where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

Vegetation and Wildlife Policy 2: Preserve and rehabilitate continuous riparian corridors and adjacent habitat along the City’s creeks and waterways.

Vegetation and Wildlife Policy 3: Require dedication of the City’s Regulatory Floodplain, as defined in the Safety Element, or comparable mechanism to protect habitat and wildlife values in perpetuity.

Vegetation and Wildlife Policy 4: Require preservation of contiguous areas in excess of the City’s Regulatory Floodplain, as defined in the Safety Element, as merited by special resources or circumstances. Special circumstances may include, but are not limited to, sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grassland connections in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements.

Vegetation and Wildlife Policy 5: Limit recreation activities within the City’s Regulatory Floodplain, as defined in the Safety Element, and require appropriate setback areas for trails and other public recreation uses so that natural resource areas are not adversely impacted.

Vegetation and Wildlife Policy 6: Provide for protection and enhancement of native fishery resources, including continued coordination with the California Department of Fish and Wildlife to release water into Linda Creek.

Vegetation and Wildlife Policy 7: Require cumulative mitigation plans for wetlands, where feasible, in association with specific plans.

Vegetation and Wildlife Policy 8: Consider substitute site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

Vegetation and Wildlife Policy 9: Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas.

Vegetation and Wildlife Policy 10: Manage public lands with special-status species to encourage propagation of the species and discourage non-indigenous, invasive species.

Vegetation and Wildlife Policy 11: Habitat preservation and mitigation for woodlands, creeks, riparian and seasonal wetland areas should occur within the defined boundaries of the impacting projects where long-term resource viability is feasible and desirable consistent with applicable state and federal permits.

Vegetation and Wildlife Policy 12: Consider the use of City property for habitat preservation and mitigation requirements resulting from development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

Vegetation and Wildlife Policy 13: Work with adjacent jurisdictions, regulatory agencies, and community organizations to explore opportunities for regional mitigation banking.
- **Groundwater Recharge and Water Quality Policy 2:** Implement erosion control and topsoil conservation measures to limit sediments within watercourses.

- **Groundwater Recharge and Water Quality Policy 3:** Ensure a buffer area between waterways and urban development to protect water quality and riparian areas.

### City of Roseville Tree Preservation Ordinance, Municipal Code Chapter 19.66

The City of Roseville Tree Preservation Ordinance (Municipal Code Chapter 19.66) regulates the removal and preservation of trees within the City. Protected trees include native oak trees equal to or greater than six inches diameter at breast height (DBH) measured as a total of a single truck or multiple trunks. Protected zones include a circle equal to the largest radius of a protected tree’s dripline plus one foot. The radius is measured from the trunk at the base of the tree to the greatest extent of the tree’s dripline. A permit is necessary for the removal of a protected tree and is described in Municipal Code Chapter 19.66.030. The City also requires that applications for development projects with activity occurring within the protected zone of a protected tree obtain a permit prior to construction, as described in Municipal Code Chapter 19.66.030, to identify measures that will aide in the preservation of native oak trees.

### Roseville Creek and Riparian Management and Restoration Plan

The Roseville Creek and Riparian Management and Restoration Plan (City of Roseville 2005) provides standards for creek and riparian area management and enhancement for more than 60 miles of creeks located in the City of Roseville. These creeks, which include portions of the Dry Creek and Pleasant Grove/Curry Creek watersheds, serve many important functions, such as conveying flood waters away from developed areas, providing valuable aquatic and wildlife habitat, as well as providing open space for recreation and preserve areas. Restoration opportunities for 10 of the major tributaries in the City of Roseville are addressed in the plan, which includes a comprehensive list of restoration methods and techniques to improve wildlife habitat, fish habitat, channel stability, and water quality. The plan also recommends maintenance practices for various issues to balance public health, safety, and resource needs. Monitoring and assessment recommendations are included to assist in determining which measures are effective, identify any problems, and allow for adaptive management (City of Roseville 2005).

### City of Roseville Open Space Preserve Overarching Management Plan

The City of Roseville Open Space Preserve Overarching Management Plan (City of Roseville 2011b) was developed at the request of the USFWS to provide one management strategy for all the previously protected open space vernal pool and wetland preserves. At the time of the plan, there were 32 City-owned preserves. The purposes of the plan are: (1) To provide a city-wide approach to open space management, maintenance, and monitoring; (2) To provide specific goals for open space management, maintenance, and monitoring; (3) To consolidate existing Open Space Preserve monitoring and reporting requirements to allow for more comprehensive data gathering and preparation of a single annual monitoring report; (4) To consolidate existing Operation and Management Plans and update the approved list of Open Space Preserve area allowed uses; (5) To eliminate the need for additional management plans when new open space is dedicated through the development process or habitat conservation efforts; (6) To gain approval of necessary open space management and maintenance tasks that might adversely affect federally listed species (threatened or endangered) protected by the
Adopted Specific Plans and Mitigation Measures

Currently, the City has adopted 14 Specific Plans. A Specific Plan is a comprehensive planning and zoning document that implements the General Plan by providing development and conservation standards for a defined geographic location within the Planning Area. Each Specific Plan contains guidelines for site, architectural, landscaping, lighting, roadway networks, pedestrian/bicycle paths, open space corridors, parks, and other aspects of design. Each adopted Specific Plan included an EIR which analyzed impacts and included mitigation measures as appropriate, which are required to be implemented in the respective Specific Plan Areas. Adopted mitigation measures include 1:1 compensation for wetland loss, wetlands avoidance and the establishment of open space preserves, measures for the protection of special status species, nesting bird surveys, grassland habitat preservation and compensation, and pre-construction surveys for sensitive wildlife. Compliance with these existing mitigation measures is required for all future development activities within the City’s remaining undeveloped Specific Plan areas. Copies of the adopted Specific Plans and their associated EIRs are available upon request from the City of Roseville Development Services Department, Planning Division.

4.8.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.8.4.1 METHODOLOGY

This analysis of impacts on biological resources associated with implementing the proposed General Plan Update is based primarily on a literature review, review of California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) records. Information sources used in this analysis include:

- West Roseville Specific Plan and EIR (City of Roseville 2004)
- Sierra Vista Specific Plan and EIR (City of Roseville 2010)
- Creekview Specific Plan and EIR (City of Roseville 2011a)
- City of Roseville Open Space Preserve Overarching Management Plan (City of Roseville 2011b)
- Amoruso Ranch Specific Plan and EIR (City of Roseville 2016)
- Western Placer County HCP/NCCP (PCCP 2018)

This EIR analyzes buildout of the Planning Area consistent with the existing General Plan land use designations and compares this to the existing physical conditions, which constitute the baseline for determining whether potential impacts are significant. Potential impacts on biological resources resulting from buildout of the City’s General Plan and necessary public facilities and infrastructure improvements were determined by overlaying future buildout areas with the existing habitat layers (as shown in Exhibit 4.8-4), quantifying potential loss of common and sensitive habitats (e.g., vernal pools, oak woodland), and evaluating potential effects on special-status species that could result from this habitat loss and other potential direct and indirect effects.

Goals and policies pertaining to management and protection of biological resources in the City’s Planning Area are mostly found in the Open Space and Conservation Element of the General Plan. This proposed General Plan Update does not include any changes to land use designations, expansion of the City’s Planning Area, or other major physical changes to areas planned for development compared to the existing General Plan, but does include changes to goals, policies, and implementation measures, which are analyzed as a part of this EIR.
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Potential impacts of General Plan buildout on biological resources were determined by analysis of mapping of biological habitats in the Planning Area and estimating impact acreages on the ground by habitat type (see Exhibit 4.8-4). This analysis is conservative because all identified sites were assumed to be fully developed unless specifically prohibited by current zoning and land use designations (e.g. as in the City’s floodway or open space zoning), despite the fact that in many cases consistency with General Plan policies and other regulations results in the creation of open space or other undeveloped areas, in order to preserve onsite resources such as trees. Exhibit 4.8-4 was designed to estimate worst-case impacts, and does not necessarily represent the actual impacts which will occur as the General Plan is built out.

Details on the nature of the analysis and impact determination for each species are provided below for each specific impact topic. Table 4.8-4 provides an overview of impacts by wildlife habitat type.

It should be noted that multiple permits and approvals would need to be obtained for projects developed under buildout conditions, and authorizations issued by regulatory agencies (such as CDFW, USFWS, USACE, and RWQCB) include conditions of approval for the same species and resources analyzed in this EIR. Those additional conditions may be more stringent than the measures required to minimize, avoid, and mitigate impacts identified in this EIR depending on the conditions on each project site and the projects proposed.

This proposed General Plan Update does not include any changes to land use designations, expansion of the City’s Planning Area, or other physical changes to areas planned for development compared to the existing General Plan, but does include changes to goals and policies, which are analyzed as a part of this EIR. The existing General Plan and the proposed General Plan Update includes goals and policies designed to avoid potential loss and other adverse effects to special-status species that may occur throughout the Planning Area. Such policies include requirements that a biological resources assessment for special-status species and their habitat be performed for development projects involving discretionary review that have the potential to affect special-status species. Policies also address potential adverse effects to species that could occur in the Planning Area by requiring evaluation of potential effects and development and implementation of plans to fully mitigate unavoidable effects in a manner acceptable to the resource agencies. Impact analyses consider how successful implementation of these conservation policies, in conjunction with mitigation, would avoid, minimize, and/or compensate for potential adverse effects to special-status species, as well as other more common species that use the same habitats. For development within Specific Plans, the General Plan’s policies are included as a part of each Specific Plan’s adopted mitigation measures or are Specific Plan development standards, as relevant to each Specific Plan Area.

4.8.4.2 Thresholds of Significance

Based on Appendix G of the State CEQA Guidelines, the proposed project would result in a significant impact related to biological resources if it would do any of the following:

► have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;

► have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
## Table 4.8-4  Habitat Types that Would Be Disturbed by Buildout of the General Plan

<table>
<thead>
<tr>
<th>Type</th>
<th>Disturbance Type</th>
<th>Acres</th>
<th>Total Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Grassland</td>
<td>Residential¹</td>
<td>1,370</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial²</td>
<td>453</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial³</td>
<td>583</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation⁴</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public⁵</td>
<td>235</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence⁶</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-of-Way⁷</td>
<td>239</td>
<td>3,025</td>
</tr>
<tr>
<td>Hay Fields/Row Crops</td>
<td>Residential</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public</td>
<td>1,335</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-of-Way</td>
<td>1</td>
<td>1,336</td>
</tr>
<tr>
<td>Irrigated Pasture</td>
<td>Residential</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation</td>
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<td></td>
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<td></td>
<td>Public/Quasi-Public</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-of-Way</td>
<td>22</td>
<td>101</td>
</tr>
<tr>
<td>Oak Woodland/Savannah</td>
<td>Residential</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public</td>
<td>39</td>
<td></td>
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<tr>
<td></td>
<td>Sphere of Influence</td>
<td>40</td>
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</tr>
<tr>
<td></td>
<td>Road Rights-of-Way</td>
<td>7</td>
<td>141</td>
</tr>
<tr>
<td>Open Water/Creek</td>
<td>Residential</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>0</td>
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<tr>
<td></td>
<td>Industrial</td>
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<td></td>
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<tr>
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<td>Parks &amp; Recreation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-of-Way</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Riparian Woodland/Wetlands</td>
<td>Residential</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-of-Way</td>
<td>15</td>
<td>251</td>
</tr>
</tbody>
</table>
Table 4.8-4  Habitat Types that Would Be Disturbed by Buildout of the General Plan

<table>
<thead>
<tr>
<th>Type</th>
<th>Disturbance Type</th>
<th>Acres</th>
<th>Total Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vernal Pool Complexes</td>
<td>Residential</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-Of-Way</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>Residential</td>
<td>1,523</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>534</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>614</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks &amp; Recreation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public/Quasi-Public</td>
<td>1,737</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sphere of Influence</td>
<td>219</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road Rights-Of-Way</td>
<td>283</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Totals may not add due to rounding.

1 Residential includes low-, medium-, and high-density residential designations.
2 Commercial includes neighborhood commercial, community commercial, regional commercial, central business district, and business commercial.
3 Industrial includes general industrial, light industrial, and transfer station.
4 Parks and Recreation includes developed park and recreation areas and golf courses.
5 Public/Quasi Public includes schools, places of worship, fire stations, electrical substation, corporation yards, well sites, tank and pump station sites, solid waste recycled drop off and park & ride lots.
6 Sphere of Influence (SOI) areas within the Planning Area are assumed to be converted to urban development, but they are not currently planned for a particular land use.
7 Road Right-of-Way (ROW). These are areas without actual parcels within the city, so they did not specifically have an assigned land use under the General Plan.

Source: Data compiled by AECOM in 2020

- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.8.4.3  ISSUES NOT DISCUSSED FURTHER

All issues related to biological resources are discussed in detail below.
**4.8.4.4 IMPACT ANALYSIS**

**IMPACT 4.8-1**

**Loss and Degradation of Special-status Plant Habitat and Potential Loss of Special-status Plants.** Full buildout of the General Plan would involve conversion of habitat that may be suitable for special-status plant species to developed use. In addition to direct removal of special-status plants, development would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate, and these plant populations could eventually die out. This impact is considered potentially significant.

Full buildout of the General Plan would allow conversion of up to 3,473 acres of habitat that may be suitable for special-status plant species, including 3,025 acres of annual grassland, 141 acres of oak woodland/savannah, 251 acres of riparian woodland/wetlands, 53 acres of vernal pool complexes, and 3 acres of open water, which could result in loss of special-status plants either through direct removal or through habitat degradation.

Potential direct impacts on special-status plants include grading, vegetation clearing and grubbing, excavation, and vehicle and foot traffic resulting in burying, crushing, or uprooting individual plants, root damage from soil compaction and disturbance, and disturbing seed banks. There are two special-status plant species that have been previously documented in the Planning Area—Boggs Lake hedge-hyssop, a species that is State-listed as endangered, and dwarf downingia, a CRPR list 2B.2 species—both of which are found in vernal pool habitats. Up to 571 acres of vernal pool complexes in the Planning Area may be developed for projects consistent with the General Plan. In addition, Boggs Lake hedge-hyssop could occur along the edges of marshes within riparian woodland/wetland habitat, the loss of which could result in direct removal of this species. Other special-status plants, including Sanford’s arrowhead, big-scale balsamroot, Ahart’s dwarf rush, legenere, and pincushion navarretia, could be present at previously undiscovered locations in annual grassland, vernal pool, and wetland habitat in the Planning Area that may be developed.

In addition to direct removal of special-status plants, buildout of the proposed project would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate, and these plant populations could eventually die out. Indirect impacts could result from pollutants transported by urban runoff and other means, sedimentation and erosion, changes in vegetation as a result of changes in land use and management practices, altered hydrology from the construction of adjacent development and roadways, habitat fragmentation, and the introduction or spread of invasive species or noxious weeds from surrounding development.

Most areas identified for new development are in the western portion of the Planning Area (Exhibit 4.8-4), including the Sierra Vista (2,073 acres), Amoruso Ranch (701 acres), Creekview (502 acres), and West Roseville (3,162 acres) Specific Plan Areas. These areas consist of annual grassland, vernal pool, and agricultural habitats that have a high potential to support special-status plants. Previously adopted mitigation measures to avoid and reduce impacts on special-status plants as part of the Specific Plan EIRs consistent with General Plan policy would continue to apply, including requirements for special-status plant surveys; wetland, grassland, and special-status plant avoidance; wetland and grassland preservation and restoration; and off-site wetland and grassland mitigation and monitoring. These mitigation measures have been and will be implemented as part of development projects associated with buildout of each Specific Plan Area. Thus, impacts on special-status plants and their habitat would be reduced where most of the new development is planned (i.e., within the western portion of the Planning Area).
Of the 3,473 acres of development planned within suitable habitat for special-status plants, 40 acres would be converted to parks and recreation areas. Some of these parks and recreation areas will be developed for golf courses, playfields, playgrounds, and other facilities; however, some will have open space elements with walking/bicycle paths adjacent to natural areas. Impacts on special-status plant habitat within recreational areas could have direct and indirect impacts, such as those noted above related to construction and installation of pathway, hardscapes, and landscape plantings, as well as introduction of increased human disturbance. However, some open space areas would maintain natural areas that would be restricted from public use and thereby maintain value for special-status plants, thus reducing the potential impact on special-status plant species in these areas.

Compliance with the CESA would reduce impacts on Boggs Lake hedge-hyssop because this would require that this species be avoided or that any loss of this species be fully mitigated as a condition of permit approvals. This law would apply to Boggs Lake hedge-hyssop, which is the only plant species within the Planning Area that is protected under CESA and listed as Endangered. Take authorization from CDFW would be required for any losses of Boggs Lake hedge-hyssop. Under CESA, project-related impacts of the authorized take must be minimized and fully mitigated, and adequate funding to implement those mitigation measures and monitor compliance with and the effectiveness of the measures must be ensured.

If any federally listed plants occur in the Planning Area, the implementation of the federal ESA would reduce impacts to these species along with the federal Plant Protection Act. The City and USFWS entered into MOUs for the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans. The City/USFWS MOUs documented agreement on land use plans and mitigation strategies for ESA compliance. Mitigation included avoidance, minimization, and preservation of wetland resources, specifically vernal pools, riparian areas, and other sensitive wetland habitat.

The USFWS Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (Recovery Plan) (USFWS 2005), though not a regulatory document, is relevant when analyzing potential impacts on vernal pools and associated biota to ensure that projects do not prevent or impair the plan’s future long-term implementation success. It is also used by the USFWS to determine recommendations and requirements during endangered species consultation for vernal pool dependent species. The plan focuses on vernal pool special-status plants and wildlife, and promotes natural ecosystem processes and functions by protecting and conserving intact vernal pools and vernal pool complexes. Portions of the northwestern section of the Planning Area, including parts of the Amoruso Ranch, Creekview, and West Roseville Specific Plan Areas, as well as the Al Johnson Wildlife Area and Reason Farms Environmental Preserve, are located in the USFWS Vernal Pool Recovery Plan Western Placer County Core Area (USFWS 2005). Special-status plants associated with the Recovery Plan and with potential to occur in these areas are the federally-listed slender Orcutt grass and Sacramento Orcutt grass, both of which are considered unlikely to occur in the Planning Area, as well as three other plant species of concern: Boggs Lake hedge-hyssop, a state-listed as endangered species; Ahart’s dwarf rush (CRPR list 1B.2); and legenere (CRPR list 1B.1). Boggs Lake hedge hyssop is known to occur in the Planning Area, and suitable habitats are present for Ahart’s dwarf rush and legenere; however, these species have not been found in the Planning Area. The overall recovery strategy for protected species in the Recovery Plan is habitat protection and management, including the establishment of conservation areas and reserves with adaptive habitat management, restoration, and monitoring. Consistent with this strategy, the City of Roseville has set aside numerous vernal pool preservation areas within the Planning Area, including lands situated within and adjacent to the Western Placer County Core Area, such as the 227-acre Reason Farms Environmental Preserve (PLT 2019). Furthermore, the four Specific Plan Areas that overlap with the Western Placer County Core Area include mitigation measures to preserve, maintain, and restore
vernal pool habitats through a combination of on-site preservation via the establishment of open space preserves and off-site compensatory mitigation (City of Roseville 2004, 2010, 2011, and 2016).

The following goals and policies related to special-status plant habitat and species would be revised as a part of the proposed General Plan Update, with additions shown in bold, underlined text and deletions shown in strikethrough text:

► Policy OS1.6: Take into account consideration of natural habitat areas in developing when designating linkages access to, and in preserving open space areas. Identify alternate sites locations and design for linkages access where sensitive habitat areas have the potential to be adversely impacted.

Goal OS2.2: Maintain healthy, and well-managed, and connected habitat areas in conjunction with one another, that maximizing the potential for compatible open space habitat preservation and compatible recreation, and visual experiences.

► Policy OS2.2: Preserve and rehabilitate restore continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

► Policy OS2.7: Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland cumulative mitigation plans for wetlands, where feasible, in association with as part of Specific Plans new development.

► Policy OS2.9: Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas, consistent with the City’s Open Space Preserve Overarching Management Plan.

► Policy OS2.10: Manage public open space preserves lands with that can provide habitat for special-status species to encourage propagation of the species and discourage spread of non-indigenous, invasive species, consistent with the City’s Open Space Preserve Overarching Management Plan.

► Policy OS1.12: Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

The proposed General Plan Update goal and policy changes listed above would help provide protection to biological resources and clarify existing policies. The revisions would not result in any adverse environmental impacts.

Conclusion

Implementation of existing General Plan Open Space System Goal 1 and Policy 7; Vegetation and Wildlife Goals 1 and 3 and Policies 4, 5, 11; and Groundwater Recharge and Water Quality Policy 3 (listed previously in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Policy OS1.6; and Goal OS2.2 and Policies OS2.2, OS2.7, OS2.9, OS2.10, and OS1.12, listed above, combined with current laws, regulations, policies, and conservation plans such as the Reason Farms Environmental Preserve, and implementation of mitigation measures associated with existing Specific Plans within the Planning Area, the impact on special-status plants and plant habitat would be
reduced. However, buildout of the General Plan could result in direct removal of special-status plants and/or habitat modification that could degrade the quality of habitats suitable for special-status plant species, and indirect effects that may result from construction-related runoff, sedimentation and erosion, and introduction of invasive weeds; this impact is potentially significant.

Mitigation Measures

Mitigation Measure 4.8-1 – The proposed General Plan Update should be amended as follows:

Implementation Measure for Special-Status Plants and Habitat

As appropriate to each individual project or Specific Plan, the following actions or those determined to be equally as effective by the City shall be implemented where there may be an adverse impact on special-status plants or habitat:

a. In conjunction with environmental review pursuant to CEQA, for projects that could directly affect special-status plants or habitat, the City shall require that resource field surveys, including special-status plant surveys, be submitted concurrent with development applications inventoried the type, quantity, and quality of existing open space resources and conditions. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed, is within an adopted specific plan area, or contains resources considered less than significant.

b. The City and project proponents will identify feasible opportunities to preserve special-status plant species occurrences and sensitive habitats through design and planning.

c. If the City determines it is reasonable and feasible to do so, the City will require preservation of occupied special-status plant species habitat and sensitive habitat types as a condition of project approval. If adverse effects cannot be avoided, project proponents shall be required to mitigate all adverse effects in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species and habitat, including surveys conducted according to applicable standards and protocols, where necessary, implementation of impact minimization measures based on accepted standards and guidelines and best available science, and compensatory mitigation for unavoidable loss of special-status plant species and sensitive habitats.

d. If the project would result in take of state or federally listed species, the City will require project proponent/s to obtain take authorization from the USFWS and/or the CDFW, as appropriate, depending on species status, and comply with all conditions of the take authorization.

e. The City will require project proponents to develop and implement a mitigation and monitoring plan reflective of permit conditions required by State and/or federal regulatory agencies, to compensate for effects to or loss of special-status species and sensitive habitats. The mitigation and monitoring plan will describe in detail how impacts to special-status species or sensitive habitats shall be avoided or offset, including details on restoration and creation of habitat, compensation for the temporal loss of habitat, management and monitoring to avoid indirect habitat degradation (e.g., management of invasive plant species, maintenance of required hydrology), success criteria ensuring that habitat function goals and objectives are met and target special-status species cover and density parameters are established, performance standards to ensure success, and remedial actions if performance
standards are not met. The plan will include detailed information on the habitats present within the preservation and mitigation areas, the long-term management and monitoring of these habitats, legal protection for the preservation and mitigation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment).

f. If available, purchase of mitigation credits at an agency-approved mitigation bank (i.e., approved by the agency with jurisdiction over the affected species or habitat) in Placer County, will be acceptable for compensatory mitigation for special-status species.

**Significance after Mitigation**

With implementation of existing General Plan and proposed General Plan Update goals and policies, combined with current laws, regulations, and Mitigation Measure 4.8-1, impacts on special-status plants and plant habitat would be reduced because new development would be required to identify, avoid, and preserve special-status plant populations and their habitats to the extent feasible, and compensate for the loss of special-status plants through off-site preservation and/or the establishment of new populations or other appropriate measures in coordination with state and federal agencies. Therefore, with implementation of policies in the General Plan, current laws and regulations, and Mitigation Measure 4.8-1, the impact on special-status plants and plant habitat is considered **less than significant with mitigation**.

**IMPACT 4.8-2**

**Loss and Degradation of Habitat for Special-status Wildlife Species and Potential Direct Take of Individuals.** Full buildout of the General Plan would involve conversion of habitat that may be suitable for special-status wildlife species to developed use. In addition to direct removal of special-status habitat, development would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for special-status wildlife to reproduce, and these wildlife populations could eventually die out. Also, development would include construction activities that could result in direct take of individual special-status wildlife species. This impact is considered **potentially significant**.

Full buildout of the General Plan could result in direct removal or degradation of up to 4,809 acres of potentially suitable habitat for special-status wildlife species, including 3,025 acres of annual grassland, 141 acres of oak woodland/savannah, 251 acres of riparian woodland/wetlands, 53 acres vernal pool complexes, 1,336 acres of agricultural lands, and 3 acres of open water/creek (see Table 4.8-4).

Special-status wildlife species could be affected directly during land conversion or indirectly through modification of suitable habitat, changes in vegetation as a result of land development or construction of public facilities and infrastructure, and habitat fragmentation. Wildlife could be killed or injured, and nests destroyed at the time of development. Wildlife could also be impacted by lighting, noise, human activity, and wildlife-human interactions adjacent to natural areas. Special-status species and habitat could be negatively impacted by the introduction of exotic and/or invasive species. Changes in drainage patterns and water quality within, upstream, and downstream of the Planning Area could occur, including changes in the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; and soil erosion and/or sedimentation in streams and water bodies. Special-status wildlife species that could be adversely affected by buildout of the General Plan and habitat conversion include the state and/or federally listed or candidate species vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, steelhead, tricolored blackbird, Swainson’s hawk and California black rail. A fully protected species, white-tailed kite, also occurs within the Planning Area. These seven listed species and the 12 additional special-status wildlife species that are not officially listed under CESA
or FESA, could be affected by the potential impacts noted above. Some special-status species that occur regionally but are not known to occur within the Planning Area include conservancy fairy shrimp, foothill yellow-legged frog, California red-legged frog, and giant garter snake.

Most areas identified for new development are in the western portion of the Planning Area, including the Sierra Vista, Amoruso Ranch, Creekview, and West Roseville Specific Plan Areas (Exhibit 4.8-4). These areas consist of annual grassland, vernal pool, and agricultural habitats that have a high potential to support special-status plants. Previously adopted mitigation measures to avoid and reduce impacts on special-status wildlife as part of the Specific Plan EIRs would continue to apply, including requirements for special-status wildlife and habitat surveys; wetland, grassland, and special-status habitat avoidance; wetland and grassland habitat preservation and restoration; and off-site wetland and grassland habitat mitigation and monitoring. Thus, impacts on special-status wildlife and their habitat would be reduced in the areas where most of the development is planned to occur (i.e., within the western portion of the Planning Area).

Potential impacts on special-status wildlife species as a result of buildout of the General Plan are discussed in more detail below either individually or in related groups.

**Valley Elderberry Longhorn Beetle**

Elderberry shrubs that have potential to support valley elderberry longhorn beetle (VELB) may be present within the Planning Area along fence rows, roadways, around rural residential properties within agricultural lands, along drainage ditches and pond margins, or in other isolated locations. The VELB is particularly associated with riparian habitat, and up to 251 acres of riparian woodland/wetland could be converted to development as a result of the General Plan buildout. Elderberry shrubs within areas planned for development could be removed resulting in loss of valley longhorn beetle larvae and loss of habitat. Indirect impacts from use of herbicides could also result if the health of elderberry shrubs containing valley elderberry longhorn beetle larvae is adversely affected.

**Vernal Pool Species**

Full buildout of the General Plan would allow development of up to 53 acres of vernal pool complexes that have potential to support vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot. Although the majority of potential habitat for vernal pool branchiopods would be preserved and/or mitigated under the Sierra Vista, Amoruso Ranch, Creekview, and West Roseville Specific Plan Areas, potential habitat may be present at other locations in the Planning Area that would be subject to development. There is also some potential for remnant vernal pools to be found in agricultural lands if the soils have not been deep-ripped. Conversion of vernal pool habitat to developed land uses could result in direct take of vernal pool branchiopods listed under the ESA and western spadefoot, a CDFW species of special concern. In addition, development in areas adjacent to vernal pool habitat could result in indirect impacts on vernal pool species through habitat degradation and fragmentation. The USFWS generally considers vernal pool habitats within 250 feet of development to be subject to indirect effects that could be deleterious to vernal pool branchiopods, such as hydromodification, loss of habitat connectivity, and degradation of water quality. The direct removal of habitat and potential degradation of retained habitat could have substantial adverse effects on listed vernal pool branchiopods and western spadefoot.

The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon, although not a regulatory document, is relevant to the analysis of potential impacts on vernal pools and associated biota to ensure that projects do not prevent or impair the plan’s future long-term implementation success. It is also used by the
USFWS to determine recommendations and requirements during endangered species consultation for vernal pool dependent species. The plan focuses on vernal pool special-status plants and wildlife and promotes natural ecosystem processes and functions by protecting and conserving intact vernal pools and vernal pool complexes. As discussed in the section above (Impacts on Special Status Plants), portions of the northwestern section of the Planning Area are in the USFWS Vernal Pool Recovery Plan Western Placer County Core Area. Special-status wildlife associated with the Recovery Plan and with potential to occur in these areas are the federally-listed conservancy fairy shrimp, considered unlikely to occur, and vernal pool fairy shrimp and vernal pool tadpole shrimp, both of which are known to occur in the Planning Area, as well as two species of concern: California fairy shrimp and western spadefoot toad (CDFW SSC).

**Special-Status Fish**

The Central Valley DPS of steelhead (federally-listed as threatened) and the fall/late fall run ESU of chinook salmon (NMFS species of concern and a CDFW species of special concern) are known to occur in the Dry Creek stream system in the Planning Area, which includes Dry Creek, Antelope Creek, Cirby Creek, Clover Valley Creek, Linda Creek, Miners Ravine, and Secret Ravine (PCCP 2018). Of these creeks, only Secret Ravine is considered to have high quality spawning and rearing habitat for special-status fish; other creeks in this system have low to moderate potential to support populations due to surrounding urban and agricultural development leading to degraded water quality, high sediment load, lack of pools, and various barriers to movement (e.g., rock and beaver dams, culverts, and low flows) (PCCP 2018). Nevertheless, Dry Creek is considered an important migration corridor to high-quality habitat upstream, which includes Secret Ravine. Urban development is the primary factor contributing to adverse conditions in these stream systems for special-status fish.

Compared to existing conditions, most new development under the General Plan would occur in the western portions of the Planning Area that surround Pleasant Grove Creek and Curry Creek, neither of which are part of the Dry Creek stream system and do not support populations of special-status fish (PCCP 2018). No direct impact on special-status fish habitat (i.e., removal) would occur. However, buildout of the General Plan would allow for some new residential, commercial, and parks/recreation development in vacant lands adjacent to existing development in the vicinity of Dry Creek, Antelope Creek, Linda Creek, Secret Ravine, and Miners Ravine. This would increase the density of development surrounding the Dry Creek stream system that could further degrade water quality and negatively affect habitat for special-status fish. Potential indirect impacts include sediment input into streams during construction that would increase turbidity and fill deep pools; and removal of vegetation along stream banks and upland areas that could lead to increased erosion and loss of shaded canopy resulting in increased water temperatures. In addition, increased urban runoff from installation of additional irrigation systems and hardened landscapes could result in an increased contaminant load in the nearby Dry Creek stream system.

**Western Pond Turtle**

Ponds, drainages, and marshes in and adjacent to the Planning Area provide suitable habitat for western pond turtle, and this species could nest in uplands up to 0.3 mile from aquatic habitat. However, there is only one record of this species occurring within 2 miles of the Planning Area in Granite Bay, and the likelihood of resident populations of this species occurring in the Planning Area is moderate to low.

Buildout of the General Plan would allow development in areas that support potential aquatic habitat and upland nesting habitat, including up to 251 acres of riparian woodland/wetlands and 3 acres of open water/creek habitat. Draining, grading, or filling aquatic habitat during construction could kill western pond turtles by hitting,
crushing, or smothering them if they are present. Development in nearby upland areas could result in direct
destruction of eggs or death of hatchlings and overwintering juveniles. Indirect impacts include degradation of
habitat from erosion and sedimentation caused by loss of vegetation, and adverse effects to water quality from
urban runoff.

**Special-Status and Migratory Birds**

Several special-status bird species are known or have potential to nest and forage in the Planning Area, as noted in
Table 4.8-3. Buildout of the General Plan would allow development in areas that currently support annual
grassland and agricultural habitats, as well as scattered trees, that could support nesting birds. Special-status bird
species potentially nesting in trees in the Planning Area include Cooper’s hawk, ferruginous hawk, Swainson’s
hawk, white-tailed kite, and loggerhead shrike. Burrowing owl is a ground dwelling species that could be found in
grassland, agricultural, and alkali prairie habitats. Tricolored blackbird and California black rail are marsh nesting
species that could be present in the Planning Area. Northern harrier and long-billed curlew are ground nesting
species that could be found in grassland, agricultural, or marsh habitats in or near the Planning Area, and
grasshopper sparrow could nest on the ground in the grassland habitats. Purple martin could nest in highway
overpasses or other man-made structures in the Planning Area. In addition to the habitat acreage presented in
Table 4.8-4, up to 1,336 acres of agricultural habitat suitable for special-status and migratory birds could be
converted to other habitat types with full buildout of the General Plan.

Portions of the Planning Area that would be opened to possible development include areas of annual grassland
and agricultural habitat that are important foraging grounds for Swainson’s hawk. Removal of substantial acreage
of foraging habitat could reduce the small-mammal prey base for Swainson’s hawks and other raptors. Large
raptors generally require large areas of suitable foraging habitat, and a reduced prey base could eventually lead to
displacement of some nesting Swainson’s hawks if sufficient foraging habitat is no longer available to support
current local population numbers. If all grassland, vernal pool, hayfields/row crops, and irrigated pasture totaling
4,515 acres of potential foraging habitat was converted to noncompatible habitat types due to development, this
would increase the likelihood that Swainson’s hawk pairs would be displaced from the area.

Construction resulting from buildout of the General Plan could disturb active bird nests, potentially resulting in
nest abandonment by the adults and mortality of chicks and eggs. Tree removal and ground disturbances could
result in the direct destruction of active nests of birds protected under the MBTA and California Fish and Game
Code. As discussed above, indirect impacts from projects developed consistent with the General Plan, such as
noise, lighting, and human activity adjacent to natural areas could negatively impact special-status avian species
and nesting birds. Loss of common migratory birds and raptors (those not meeting the definition of special-status
as provided above) would not be a significant impact under CEQA, but mitigation to avoid the loss of active nests
of these species is required for compliance with the MBTA and California Fish and Game Code.

**Special-Status Mammals**

Buildout of the General Plan would allow development that could result in the removal of human-made structures
that may support bat roosts, including those for pallid bat and Townsend’s big-eared bat, both of which are
CDFW species of special concern. If these structures are used by bats as a day roost, hibernation roost, or
maternity colony roost, this could result in injury and mortality of pallid bat.
Destruction of suitable habitat and direct mortality could occur to American badger within the Planning Area as a result of construction of development projects and public facilities and infrastructure. Grading, grubbing of vegetation, and development would remove up to 3,025 acres of suitable grassland habitat, and construction activities could directly kill a badger by crushing or hitting an individual with heavy construction equipment. Indirect impacts could include degradation and fragmentation of continuous grassland habitat.

The following goals and policies related to special-status wildlife species and habitat would be revised as a part of the proposed General Plan Update, with additions shown in bold, underlined text and deletions shown in strikethrough text:

► **Policy OS1.6**: Take into account consideration of natural habitat areas in developing when designating linkages **access to**, and in preserving open space areas. Identify alternate sites **locations and design** for linkages **access** where sensitive habitat areas have the potential to be adversely impacted.

Goal OS2.2: Maintain healthy, and well-managed, and **connected** habitat areas in conjunction with one another, that maximizing the potential for compatible open space **habitat preservation and compatible** recreation, and visual experiences.

► **Policy OS2.1**: Incorporate existing trees into development projects, with an **Particular emphasis** shall be placed on **avoiding the removal of groupings or groves of trees**. Where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

► **Policy OS2.2**: Preserve and **rehabilitate restore** continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

► **Policy OS2.6**: Provide for the protection and enhancement of native fishery resources, including as informed by continued coordination with the California Department of Fish and Wildlife to release water into Linda Creek.

► **Policy OS2.7**: Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland cumulative mitigation plans for wetlands, where feasible, in association with as part of Specific Plans new development.

► **Policy OS2.8**: Consider substitute off-site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

► **Policy OS2.9**: Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas, **consistent with the City’s Open Space Preserve Overarching Management Plan**.

► **Policy OS2.10**: Manage public open space preserves lands with that can provide habitat for special-status species to encourage propagation of the species and discourage spread of non-indigenous, invasive species, **consistent with the City’s Open Space Preserve Overarching Management Plan**.
Policy OS1.12: Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

The proposed General Plan Update policy changes listed above would help provide protection to biological resources, would result in additional clarity, and would not result in any adverse environmental impacts.

Conclusion

Compliance with the federal ESA and CESA would reduce potential impacts on vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, steelhead, tricolored blackbird, Swainson’s hawk and California black rail because it would require that these State and/or federally listed species be avoided or that any loss of these species be fully mitigated as a condition of take authorization. For projects with a federal nexus (e.g., receiving federal funding or requiring federal permits), federal agencies are required under Section 7 of the ESA to consult with USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species. Section 10(a) of the ESA allows USFWS to permit the incidental take of listed species if such take is accompanied by a habitat conservation plan that ensures minimization and mitigation of impacts associated with the take. Under CESA, project-related impacts of the authorized take must be minimized and fully mitigated. Additionally, adequate funding must be ensured for implementation of those mitigation measures, monitoring compliance with mitigation measures, and evaluating the effectiveness of the measures.

The City and USFWS entered into MOUs for the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans. The City/USFWS MOUs documented agreement on land use plans and mitigation strategies for ESA compliance. Mitigation included avoidance, minimization, and preservation of wetland resources, specifically vernal pools, riparian areas, and other sensitive wetland habitat.

The Recovery Plan also provides an overall recovery strategy for protected species, consisting of habitat protection and management, including the establishment of conservation areas and reserves with adaptive habitat management, restoration, and monitoring. Consistent with this strategy, the City of Roseville has set aside numerous vernal pool preservation areas within the Planning Area, including lands situated within and adjacent to the Western Placer County Core Area, such as the 227-acre Reason Farms Environmental Preserve (PLT 2019). Furthermore, the four Specific Plan Areas that overlap with the Western Placer County Core Area include mitigation measures to preserve, maintain, and restore vernal pool habitats through a combination of on-site preservation via the establishment of open space preserves and off-site compensatory mitigation (City of Roseville 2004, 2010, 2011, and 2016).

Compliance with the MBTA and Section 3503 of the California Fish and Game Code would ensure that nesting raptors and other birds are not adversely affected because this requires project applicants to avoid disturbing or destroying active bird nests either directly or indirectly. Project applicants would be required to conduct preconstruction nesting bird surveys for any work conducted during the nesting season, which is generally considered to be February 1-September 15, and avoid removing or destroying active nests, or disturbing nesting birds in such a way that it results in nest abandonment.

Implementation of existing General Plan Open Space System Goal 1 and Policy 7; Vegetation and Wildlife Goals 1 and 3 and Policies 3, 4, 5, 11, and 13; and Groundwater Recharge and Water Quality Policy 3 (listed previously
in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Policy OS1.6; and Goal OS2.2 and Policies OS2.1, OS2.2, OS2.7, OS2.9, OS2.10, and OS1.12 listed above, combined with current laws, regulations, policies, and conservation plans, and implementation of mitigation measures associated with existing Specific Plans within the Planning Area, the impact on special-status wildlife and their habitats would be reduced. However, buildout of the General Plan could result in direct impacts on special-status wildlife species and/or habitat modification that could degrade the quality of habitats suitable for special-status wildlife, and indirect effects that may result from construction-related runoff, sedimentation and erosion, introduction of invasive weeds, and new sources of noise and light; this impact is potentially significant.

Mitigation Measures

Mitigation Measure 4.8-2 – The proposed General Plan Update should be amended as follows:

Implementation Measure for Special-Status Wildlife

If feasible, the City will require preservation of occupied special-status wildlife species habitat and sensitive habitat types as a condition of project approval. If adverse effects cannot be avoided, project proponents shall be required to mitigate all adverse effects in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species and habitat, including surveys conducted according to applicable standards and protocols, where necessary, implementation of impact minimization measures based on accepted standards and guidelines and best available science, and compensatory mitigation for unavoidable loss of special-status wildlife species and sensitive habitats.

Significance after Mitigation

Because much of the sensitive habitat in the Planning Area is already designated for preservation as open space, implementation of goals and policies in the existing General Plan and the proposed General Plan Update, combined with current laws, regulations, and Mitigation Measure 4.8-2, will ensure impacts to special-status wildlife and associated habitat would be reduced to a less-than-significant level. These provisions would require development projects to identify and avoid special-status wildlife and wildlife habitat, preserve sensitive habitats (e.g., vernal pools, riparian areas, wetlands) that could support special-status wildlife, or provide compensation for loss of habitat in coordination with state and federal agencies.

IMPACT 4.8-3 Loss and Degradation of Riparian Habitat or Other Sensitive Natural Communities. Buildout of the General Plan would involve conversion of riparian habitat and other sensitive natural communities to developed use. In addition to direct removal of habitat, buildout of the General Plan would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for riparian plants or other sensitive natural communities to regenerate, and these habitats and communities could eventually die out. This impact is considered potentially significant.

This section discusses riparian and oak woodland habitats that contain native vegetation communities that would be considered sensitive natural communities. All other sensitive natural communities, including vernal pool habitats and other freshwater wetlands found in the Planning Area, are addressed under impacts on federally protected wetlands and are not discussed here.
Buildout of the General Plan could potentially result in the conversion of up to 251 acres of riparian woodland/wetlands and 141 acres of oak woodland/savannah to urban development throughout the Planning Area. Development in these areas could result in removal of vegetation or further habitat degradation from pollutants transported by urban runoff, changes in vegetation as a result of changes in land use and management practices, as well as altered site hydrology from the construction of adjacent urban development and roadways. Alterations to the flow, bed, channel, or bank of creeks and streams within the Planning Area would affect the ability of riparian corridors to provide habitat for wildlife species that utilize them for feeding, cover, and nesting, and thus could result in a loss of riparian habitat function. However, impacts related to erosion and runoff would be reduced by implementing BMPs, as required by the City’s Improvement Standards and NPDES General Permit (see Chapter 4.13, “Hydrology and Water Quality,” for a detailed discussion of these regulatory requirements). Installation of BMPs during construction activities could include fiber rolls and straw wattles, sandbags, silt fencing, hydroseed treatments, soil stabilizers, and housekeeping; and for permanent development could include grassy swales, detention ponds, and vegetative buffers.

Compliance with Section 1602 of the California Fish and Game Code would further reduce potential impacts on riparian habitat because it would require project applicants to notify CDFW if their project includes work on the bed and bank of a stream or other water body, including drainage canals and artificial lakes, and obtain a Lake and Streambed Alteration Agreement. The Lake and Streambed Alteration Agreement would include measures to avoid, minimize, or compensate for adverse effects to riparian habitat that must be implemented as a condition of the agreement.

City floodplain development regulations (see Chapter 4.13, “Hydrology and Water Quality” for a detailed discussion) would limit the type of activities that could occur within the riparian zone and the Roseville Creek and Riparian Management and Restoration Plan provides standards for riparian area management and enhancement. The City tree ordinance protects oak trees with a trunk equal to or greater than six inches DBH (as measured by a single trunk or a group of trunks). Water quality regulations and requirements, such as NPDES, would protect riparian zones by prohibiting fill or degradation to vegetation that could impede water quality and vegetation.

The City and USFWS entered into MOUs for the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans. The City/USFWS MOUs documented agreement on land use plans and mitigation strategies for ESA compliance. Mitigation included avoidance, minimization, and preservation of wetland resources, specifically vernal pools, riparian areas, and other sensitive wetland habitat.

The following goals and policies related to riparian habitat and other sensitive natural communities would be revised as a part of the proposed General Plan Update, with additions shown in **bold, underlined** text and deletions shown in **strikethrough** text:

► **Policy OS1.6:** Take into account consideration of natural habitat areas in developing **when designating linkages access to**, and in preserving open space areas. Identify alternate sites **locations and design** for **linkages access** where sensitive habitat areas have the potential to be adversely impacted.

**Goal OS2.2:** Maintain healthy, **and connected** habitat areas **in conjunction with one another, that maximizing** the potential for compatible open space **habitat preservation and compatible** recreation, and visual experiences.
Policy OS2.1: Incorporate existing trees into development projects, with a particular emphasis shall be placed on avoiding the removal of groupings or groves of trees, and where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

Policy OS2.2: Preserve and rehabilitate continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

Policy OS2.6: Provide for the protection and enhancement of native fishery resources, including as informed by continued coordination with the California Department of Fish and Wildlife to release water into Linda Creek.

Policy OS2.7: Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland cumulative mitigation plans for wetlands, where feasible, in association with as part of Specific Plans new development.

Policy OS2.8: Consider substitute off-site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

Policy OS2.9: Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas, consistent with the City's Open Space Preserve Overarching Management Plan.

Policy OS2.10: Manage public open space preserves lands with that can provide habitat for special-status species to encourage propagation of the species and discourage spread of non-indigenous, invasive species, consistent with the City's Open Space Preserve Overarching Management Plan.

Policy OS1.12: Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

The proposed General Plan Update policy changes listed above would help provide protection to biological resources, would result in additional clarity, and would not result in any adverse environmental impacts.

Conclusion

Implementation of existing General Plan Open Space System Goal 1 and Policy 7; Vegetation and Wildlife Goals 1 and 3 and Policies 3, 4, 5, 11, and 13; and Groundwater Recharge and Water Quality Policies 2 and 3 (listed previously in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Policy OS1.6; and Goal OS2.2 and Policies OS2.1, OS2.2, OS2.7, OS2.9, OS2.10, and OS1.12 listed above, combined with current laws, regulations, and policies, the impact on riparian habitat and other sensitive natural communities would be reduced. However, full buildout of the General Plan could result in development of up to 392 acres of riparian and oak woodland habitats, which contain sensitive natural communities; this impact is potentially significant.
Mitigation Measures

Mitigation Measure 4.8-3 – *The proposed General Plan Update should be amended as follows:*

**Implementation Measure for Riparian Habitat and Sensitive Natural Communities**

If a proposed project would result in fill or alteration of a waterway or any body of water supporting riparian forest habitat, the City will require project proponent/s to notify the California Department of Fish and Wildlife, obtain a Lake and Streambed Alteration Agreement if determined necessary by the California Department of Fish and Wildlife, and comply with all conditions of the Lake and Streambed Alteration Agreement. Measures for riparian habitat and sensitive natural communities protection include, but are not limited to, avoid impacts by establishing a buffer zone between adjacent land uses and riparian habitat and sensitive natural communities; protect and preserve riparian habitat and sensitive natural communities to the extent feasible; and compensate for loss of riparian habitat and sensitive natural communities by creating, restoring, or preserving off-site habitat in coordination with the applicable resource agencies.

**Implement Mitigation Measure 4.8-1 (Implementation Measure for Special-Status Plants and Habitat)**

**Implement Mitigation Measure 4.8-2 (Implementation Measure for Special-Status Wildlife)**

**Significance after Mitigation**

Because much of the sensitive habitat in the Planning Area is already designated for preservation as open space, and with implementation of goals and policies in the existing General Plan and the proposed General Plan Update, combined with current laws, regulations, and Mitigation Measures 4.8-1, 4.8-2, and 4.8-3, impacts on riparian habitat and sensitive natural communities would be reduced to a less-than-significant level because these provisions would require development projects to identify, avoid, and preserve riparian habitats and sensitive natural communities (oak woodland) that could support special-status wildlife, or provide compensation for loss of habitat in coordination with state and federal agencies.

**IMPACT 4.8-4** *Loss and Degradation of Protected Wetlands and Other Waters.* Buildout of the General Plan would involve conversion of wetlands and other waters to developed use. In addition to direct removal of wetlands and other waters, buildout of the General Plan would result in wetlands modification that could degrade habitat quality. This impact is considered potentially significant.

Implementing the General Plan would allow development in areas that currently support, or may support, state or federally protected wetlands and other waters, including vernal pools and other freshwater wetlands, ponds, and drainage canals. Impacts on wetlands and other waters could occur through habitat conversion, encroachment, routine maintenance, or other activities in the immediate vicinity of waterways and in habitat supporting wetlands. Land conversion could result in direct fill of wetlands and other waters of the United States and/or waters of the state. Indirect impacts could result from adjacent development that leads to habitat modifications such as changes in hydrology and reduction in water quality caused by urban runoff, erosion, and siltation. Any wetlands or other jurisdictional waters by the USACE would still be subject to regulation by Central Valley RWQCB as waters of the state and impacts on waters of the state would require mitigation. However, as shown in Exhibit 4.8-4, much
of the open water/creeks and vernal pool complexes in the Planning Area is designated for Open Space and would therefore be protected from direct removal, reducing the potential impact.

Compliance with Section 404 of the Clean Water Act would reduce potential impacts on federally protected wetlands because it would require project applicants to obtain a permit from the USACE for any activity resulting in fill of wetlands and other waters of the United States. A wetland mitigation plan that satisfies USACE requirements will be needed as part of the permit application. Project applicants that obtain a Section 404 permit will also be required to obtain water quality certification from the Central Valley RWQCB pursuant to Section 401 of the CWA. If the project involves work in areas containing jurisdictional waters by the USACE, project applicants would be required to obtain a Waste Discharge Requirement permit from the Central Valley RWQCB pursuant to the Porter Cologne Act. In accordance with these state and federal regulations, mitigation resulting in no net loss of functions and values of affected wetlands and waters is required.

The City and USFWS entered into MOUs for the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans. The City/USFWS MOUs documented agreement on land use plans and mitigation strategies for ESA compliance. Mitigation included avoidance, minimization, and preservation of wetland resources, specifically vernal pools, riparian areas, and other sensitive wetland habitat.

The following proposed General Plan Update goals and policies related to wetlands and other waters are proposed for revision, with additions shown in bold, underlined text and deletions shown in strikethrough text:

► **Policy OS1.6:** Take into account consideration of natural habitat areas in developing when designating linkages access to, and in preserving open space areas. Identify alternate sites locations and design for linkages access where sensitive habitat areas have the potential to be adversely impacted.

**Goal OS2.2:** Maintain healthy, and well-managed, and connected habitat areas in conjunction with one another, that maximizing the potential for habitat preservation and compatible recreation, and visual experiences.

► **Policy OS2.1:** Incorporate existing trees into development projects, with an Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees. Where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

► **Policy OS2.2:** Preserve and rehabilitate restore continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

► **Policy OS2.6:** Provide for the protection and enhancement of native fishery resources, including as informed by continued coordination with the California Department of Fish and Wildlife to release water into Linda Creek.

► **Policy OS2.7:** Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland cumulative mitigation plans for wetlands, where feasible, in association with as part of Specific Plans new development.
▶ **Policy OS2.8:** Consider substitute off-site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

▶ **Policy OS2.9:** Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas, consistent with the City’s Open Space Preserve Overarching Management Plan.

▶ **Policy OS2.10:** Manage public open space preserves lands with that can provide habitat for special-status species to encourage propagation of the species and discourage spread of non-indigenous, invasive species, consistent with the City’s Open Space Preserve Overarching Management Plan.

▶ **Policy OS1.12:** Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

The proposed General Plan Update policy changes listed above would help provide protection to biological resources, would result in additional clarity, and would not result in any adverse environmental impacts.

**Conclusion**

With implementation of existing General Plan Open Space System Goal 1 and Policy 7; Vegetation and Wildlife Goals 1 and 3 and Policies 3, 4, 5, 11, and 13; and Groundwater Recharge and Water Quality Policies 2 and 3 (listed previously in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Policy OS1.6; and Goal OS2.2 and Policies OS2.2, OS2.6, OS2.7, OS2.8, OS2.9, OS2.10, and OS2.12 listed above, combined with current laws, regulations, and policies, the impact on federally protected wetlands and other waters of the United States and the state would be reduced. However, buildout of the General Plan could result in direct removal of wetlands or other waters and/or habitat modification that could degrade the quality of habitats, and indirect effects that may result from construction-related runoff, sedimentation and erosion, changes in hydrology, and introduction of invasive weeds; this impact is potentially significant.

**Mitigation Measures**

**Mitigation Measure 4.8-4 – The proposed General Plan Update should be amended as follows:**

**Implementation Measure for Wetlands and Other Waters**

If a project would result in ground disturbance on sites containing waterways or other aquatic habitats, the City will require project proponent/s to complete a delineation of waters of the United States according to U.S. Army Corps of Engineers’ methods, and to submit the completed delineation to the U.S. Army Corps of Engineers for jurisdictional determination. If the project would result in fill of wetlands or other waters of the United States, the City will require project proponent/s to obtain a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers and water quality certification from the Regional Water Quality Control Board pursuant to Section 401 of the Clean Water Act. If the project involves work in areas containing waters disclaimed by the USACE, project applicants shall obtain a Waste Discharge Requirement permit from the Regional Water Quality Control Board pursuant to the Porter Cologne Act. Project applicants shall be required to obtain all needed permits prior to project implementation, to abide
by the conditions of the permits, including all mitigation requirements, and to implement all requirements of the permits in the timeframes required therein.

**Implement Mitigation Measure 4.8-1 (Implementation Measure for Special-Status Plants and Habitat)**

**Implement Mitigation Measure 4.8-2 (Implementation Measure for Special-Status Wildlife)**

**Implement Mitigation Measure 4.8-3 (Implementation Measure for Riparian Habitat and Sensitive Natural Communities)**

**Significance after Mitigation**

Because much of the sensitive habitat in the Planning Area is already designated for preservation as open space, implementation of goals and policies in the existing General Plan and the proposed General Plan Update, combined with current laws, regulations, and Mitigation Measures 4.8-1, 4.8-2, 4.8-3, and 4.8-4, will ensure impacts to wetlands and other waters would be reduced to a less-than-significant level. These provisions would require development projects to identify, avoid, and preserve wetlands and waters of the U.S. and state, or provide compensation for loss of habitat in coordination with state and federal agencies. Policies requiring protection of special-status species and their habitats also protect wetlands and drainages because these include special-status species such as vernal pool branchiopods, vernal pool plants, western spadefoot, and western pond turtle that are associated with aquatic habitats.

**IMPACT 4.8-5 Substantial Interference with Wildlife Movement Corridors and Nursery Sites.** Buildout of the General Plan would involve conversion of habitat to developed use that could provide wildlife movement corridors and nursery sites. In addition to direct removal of habitat, buildout of the General Plan would result in habitat modification that could degrade habitat quality to a degree that it is no longer suitable for use as wildlife movement corridors and/or nursery sites. This impact is considered potentially significant.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by changes in vegetation or human disturbance. The fragmentation of open space areas by urbanization creates isolated islands of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time because fragmentation prohibits the infusion of new individuals and genetic information.

Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, and other needs (City of Roseville 2016).

Wildlife movement activities generally fall into one of three movement categories: (1) dispersal (e.g., of juvenile animals from natal areas or individuals extending range distributions); (2) seasonal migration; and (3) movement related to home range activities (foraging for food or water, defending territories, or searching for mates, breeding areas, or cover) (City of Roseville 2016).
Development of the Planning Area could impede the movement of wildlife by disturbing and/or blocking local movement corridors. Many of the species that would normally use annual grasslands and vernal pool complexes as foraging areas would not as easily move across the future urbanized landscapes planned for development. The General Plan includes areas designated for Open Space, including creek and riparian areas and vernal pool complexes, which would become the primary wildlife corridors through the urbanized landscape. Construction of stream crossings and other activities could alter the corridors and disturb wildlife using these areas.

Roseville is located within the Pacific flyway, which is a major north-south route for migratory birds in western North America. Large numbers of waterfowl and shorebirds may move through the area seasonally and may congregate and forage in wetlands, grasslands, and agricultural fields during winter or use them as resting grounds during longer migrations from the Arctic to Central or South America. Some planned development would occur in agricultural habitats within the Pacific flyway and displace migratory birds. However, this development would not create a barrier to movement of migratory species or alter the character of existing habitat available to migrating birds such that it would no longer function as a migratory corridor because there still would be abundant agricultural habitat of equal or better value to migrating birds surrounding the Planning Area and this agricultural habitat, along with annual grasslands and riparian areas, would continue to support the needs of migratory birds and provide wildlife movement opportunities for other native resident or migratory wildlife species in the area.

The Planning Area does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. The Planning Area is not located within any of the ecological corridors identified in the Placer HCP/NCCP as important to maintaining connectivity between communities, habitat patches, species populations, or the Placer HCP/NCCP proposed reserve system (PCCP 2018). Several heron, egret, and cormorant rookeries are present in the surrounding region, but are limited to dense riparian habitats in the vicinities of Folsom Lake, the American River, and Sacramento River well outside of the Planning Area (CDFW 2019b). The only wildlife nursery site identified in the Planning Area is a nesting colony of purple martin in the State Route 65 overpass (CDFW 2019b). State Route 65 is on property owned by the State of California, where the City does not have development authority, and no changes to this facility are proposed by the City. Therefore, there would be no direct impact on the purple martin nesting colony as a result of project implementation.

The City’s Floodplain Development Regulations (discussed in detail in Chapter 4.13, “Hydrology and Water Quality”) would reduce impacts associated with floodplains and stream channels. Most of the stream channels in the Planning Area would remain as open space, which would preserve movement corridors in the Planning Area. Also, much of the vernal pool complexes in the Planning Area would be preserved and provide linkages for movement of animals. In addition, if there are activities in the Planning Area that could affect stream corridors, this would require a Section 1600 Streambed Alteration Agreement from CDFW. Specific measures would be developed during discussions with CDFW, but may include avoidance and minimization measures, use of erosion control and bank stabilization measures, and restoration of stream corridor habitat that has been damaged during the construction of the proposed project.

The City and USFWS entered into MOUs for the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans. The City/USFWS MOUs documented agreement on land use plans and mitigation strategies for ESA compliance. Mitigation included avoidance, minimization, and preservation of wetland resources, specifically vernal pools, riparian areas, and other sensitive wetland habitat that could be used as wildlife corridors.
The following goal and policies related to wildlife movement corridors and nursery sites are proposed for revision as a part of the proposed General Plan Update, with additions shown in **bold**, underlined text and deletions shown in strikethrough text:

- **Policy OS1.6:** Take into account consideration of natural habitat areas in developing **when designating linkages access to**, and in preserving open space areas. Identify alternate sites **locations and design** for linkages **access** where sensitive habitat areas have the potential to be adversely impacted.

**Goal OS2.2:** Maintain healthy, and well-managed, **and connected** habitat areas in conjunction with one another, **that maximizing** the potential for **compatible open space habitat preservation and compatible recreation, and visual experiences.**

- **Policy OS2.1:** Incorporate existing trees into development projects, **with an Particular emphasis** shall be placed on avoiding the removal of groupings or groves of trees, and **Where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.**

- **Policy OS2.2:** Preserve and rehabilitate **restore** continuous riparian corridors and adjacent habitat along the City’s creeks and waterways.

- **Policy OS2.6:** Provide for the protection and enhancement of native fishery resources, including as informed by continued coordination with the California Department of Fish and Wildlife to release water into Linda Creek.

- **Policy OS2.9:** Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas, **consistent with the City’s Open Space Preserve Overarching Management Plan.**

- **Policy OS2.10:** Manage public **open space preserves lands with that can provide habitat for** special-status species to encourage propagation of the species and discourage spread of non-indigenous, invasive species, **consistent with the City’s Open Space Preserve Overarching Management Plan.**

- **Policy OS1.12:** Consider the use of City property for habitat preservation and mitigation requirements resulting from **new** development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

The proposed General Plan Update policy changes listed above would help provide protection to biological resources, would result in additional clarity, and would not result in any adverse environmental impacts.

**Conclusion**

With implementation of existing General Plan Open Space System Goal 1 and Policy 7; Vegetation and Wildlife Goals 1 and 3 and Policies 3, 4, 5, and 11; and Groundwater Recharge and Water Quality Policies 2 and 3 (listed previously in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Policy OS1.6; and Goal OS2.2 and Policies OS2.1, OS2.2, OS2.6, OS2.7, OS2.8, OS2.9 and OS2.12 listed above, combined with current laws, regulations, and policies, the impact on wildlife movement corridors and nursery sites would be reduced. However,
implementation of the General Plan could result in direct removal of wildlife movement corridors and nursery sites and/or habitat modification that could degrade the quality of habitats, and indirect effects that may result from construction-related runoff, sedimentation and erosion, introduction of invasive weeds, this impact is potentially significant.

**Mitigation Measures**

Implement Mitigation Measure 4.8-1 (Implementation Measure for Special-Status Plants and Habitat)

Implement Mitigation Measure 4.8-2 (Implementation Measure for Special-Status Wildlife)

Implement Mitigation Measure 4.8-3 (Implementation Measure for Riparian Habitat and Sensitive Natural Communities)

Implement Mitigation Measure 4.8-4 (Implementation Measure for Wetlands and Other Waters)

**Significance after Mitigation**

With implementation of goals and policies in the existing General Plan and the proposed General Plan Update, combined with current laws, regulations, and Mitigation Measures 4.8-1, 4.8-2, 4.8-3, and 4.8-4, impacts to wildlife corridors and nursery sites would be reduced to a less-than-significant level because these provisions would require projects to identify, avoid, and preserve habitats that function as wildlife migration corridors, including riparian areas and wetlands, or provide compensation for loss of habitat in coordination with state and federal agencies. In addition, proposed General Plan Update policies that require protection of special-status species and their habitats also protect riparian areas, wetlands, and drainages that can be used as wildlife corridors. Finally, implementation of Mitigation Measure 4.8-2 will ensure protection of nesting colonies of purple martin, a CDFW special-status species.

**IMPACT 4.8-6 Conflict with Local Ordinances Protecting Biological Resources.** Buildout of the General Plan would involve conversion of habitat to developed use that will require oak tree removal, which would be subject to the City's ordinances and policies regarding oak tree preservation and mitigation. The City of Roseville Tree Preservation Ordinance requires a permit and mitigation for all oak trees removed. Therefore, this impact is considered less than significant.

Buildout of the General Plan would allow development in areas containing trees protected under the City of Roseville Tree Preservation Ordinance (Municipal Code Chapter 19.66, Tree Preservation). The Tree Preservation Ordinance defines protected trees as a native oak tree, defined as any tree of the genus *Quercus* and species *lobata* (valley oak), *douglasii* (blue oak), *wislizeni* (interior live oak) or hybrids thereof, equal to or greater than six inches diameter at breast height (DBH) measured as a total of a single trunk or multiple trunks. Activities that may harm, destroy, kill, or remove a protected tree, or any activities within the protected zone (i.e., a circle equal to the largest radius of a protected tree’s dripline plus one foot) of a protected tree that may adversely impact its health, including, but not limited to, cutting, grading, irrigating and trenching, are prohibited unless authorized by a Tree Permit.

In accordance with 19.66.040 of the Tree Preservation Ordinance, applications for Tree Permits for regulated activities associated with a discretionary project must be included as part of the land use permit and/or subdivision
application for the discretionary project. All Tree Permit applications are required to use the forms provided by the Planning Division and must include an arborist’s report as specified by Section 19.66.050 of the Tree Preservation Ordinance, and a site plan with information as deemed necessary by the Planning Manager.

Project applicants would be required to obtain a permit from the Planning Manager for any proposed tree removal or work within the protected zone of a protected tree, and as a condition of the tree permit, applicants would be required to develop a program for the replacement of any trees proposed to be removed. The project applicant would be required to replace protected trees according to the ordinance.

The following proposed General Plan Update policies related to conflicts with local ordinances that protect biological resources are proposed for revision, with additions shown in **bold, underlined** text and deletions shown in **strike-through** text:

► **Policy OS2.1:** Incorporate existing trees into development projects, with **an particular emphasis** shall be placed on avoiding the removal of groupings or groves of trees, and where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees.

► **Policy OS2.2:** Preserve and rehabilitate *restore* continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

The proposed General Plan Update policy changes listed above would help provide protection to biological resources, would improve clarity, and would not result in any adverse environmental impacts.

**Conclusion**

The proposed General Plan Update does not propose to change the City’s existing tree ordinance. With implementation of existing Vegetation and Wildlife Goal 1 and Policy 11 (listed previously in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Policies OS2.1 and OS2.2 listed above, combined with current laws, regulations, and policies such as the City’s Tree Ordinance, the impact on protected trees would be reduced. The impact is considered **less than significant**.

**Mitigation Measures**

No mitigation is required.

**IMPACT** 4.8-7 Conflict with Provisions of an Adopted Habitat Conservation Plan, Natural Conservation Community Plan, or Other Approved Conservation Plan. There is no adopted HCP, NCCP, or other approved local, regional, or State HCP that applies to the Planning Area. This impact is considered less than significant.

There is no adopted HCP, NCCP, or other approved local, regional, or State HCP that applies to the Planning Area. The County is currently preparing the PCCP described in Section 4.8.3.3; however, this plan is in draft form and has not been adopted. The City of Roseville is not a current participant in the PCCP process. If and when the County’s PCCP is adopted, however, the City may choose to participate and may be included in the PCCP as a special entity.
For the Sierra Vista, West Roseville, Creekview, and Amoruso Ranch Specific Plans, the City entered into MOUs with USFWS to prepare an HCP or equivalent, as discussed in Section 4.8.3.1. The City worked with the USFWS to assess the status of remaining vernal pool resources within the City. This included several mapping efforts to identify current development trends and remaining vernal pool resources. The USFWS concurred that nearly all remaining undeveloped land containing vernal pools had received federal permits for development through the Clean Water Act 404 process; therefore, preparation of an HCP or equivalent to address remaining development would not be necessary. The USFWS further determined that the conservation strategy could be developed and approved through Section 7 consultation process in the context of permitting pursuant to Section 404 of the Clean Water Act.

Compliance with the federal ESA and CESA along with Section 404 of the Clean Water Act would reduce impacts to biological resources.

The following goal and policies related to HCPs and NCCPs would be revised as a part of the proposed General Plan Update, with additions shown in **bold, underlined** text and deletions shown in strikethrough text:

**Goal OS2.2:** Maintain healthy, and well-managed, and connected habitat areas in conjunction with one another, that maximizing the potential for compatible open space habitat preservation and compatible recreation, and visual experiences.

► **Policy OS2.2:** Preserve and rehabilitate **restore** continuous riparian corridors and adjacent habitat along the City's creeks and waterways.

► **Policy OS2.6:** Provide for the protection and enhancement of native fishery resources, including as informed by continued coordination with the California Department of Fish and Wildlife to release water into Linda Creek.

► **Policy OS2.7:** Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland cumulative mitigation plans for wetlands, where feasible, in association with as part of Specific Plans new development.

► **Policy OS2.8:** Consider substitute off-site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

► **Policy OS2.9:** Limit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas, consistent with the City’s Open Space Preserve Overarching Management Plan.

► **Policy OS2.10:** Manage public open space preserves lands with that can provide habitat for special-status species to encourage propagation of the species and discourage spread of non-indigenous, invasive species, consistent with the City’s Open Space Preserve Overarching Management Plan.

► **Policy OS1.12:** Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.
The proposed General Plan Update policy changes listed above would help provide protection to biological resources, would improve clarity, and would not result in any adverse environmental impacts.

**Conclusion**

There is no adopted HCP, NCCP, or other approved local, regional, or State HCP that applies to the Planning Area. If/when the County’s PCCP is adopted, the City may choose to participate and may be included in the PCCP as a special entity. As previously discussed, the USFWS concurred that nearly all remaining undeveloped land in the City’s western development areas containing vernal pools had received federal permits for development through the Clean Water Act 404 process and, therefore, preparation of an HCP or equivalent to address remaining development in the City would not be necessary. The USFWS further determined that the conservation strategy could be developed and approved through Section 7 consultation process in the context of permitting pursuant to Section 404 of the Clean Water Act.

Existing General Plan Open Space System Policy 7; Vegetation and Wildlife Goals 1 and 3 and Policies 3, 4, 5, 11, and 13; and Groundwater Recharge and Water Quality Policies 2 and 3 (listed previously in the Regulatory Framework section, and which have been renumbered for the proposed General Plan Update), as well as revised proposed General Plan Update Goal OS2.2 and Policies OS2.2, OS2.6, OS2.7, OS2.8, OS2.9, OS2.10, and OS2.12 listed above, would help protect biological resources throughout the Planning Area, including resources associated with the proposed Western Placer County HCP/NCCP, if and when it is adopted. The impact is considered **less than significant**.

**Mitigation Measures**

No mitigation is required.