

4.10 BIOLOGICAL RESOURCES

This section provides information on biological resources in the City of Rocklin General Plan Planning Area and describes local habitats and on-site vegetation communities, including wetlands and other potential jurisdictional “waters of the United States.” Key issues include special-status species, species of concern, non-listed species, biological communities, and migratory wildlife corridors. Potential impacts to biological resources associated with the land use designations presented in the proposed General Plan Update for the City of Rocklin are evaluated. This section is based on a review of database search results and a literature search pertaining to biological resources within the Planning Area, as well as review of aerial photos and windshield-level surveys of the Planning Area. Relevant federal, state, and local regulatory agencies, codes, and ordinances are identified in the discussion. Abbreviated citations for each information source are provided in the text, with full references provided at the end of this section.

4.10.1 EXISTING SETTING

BIOLOGICAL SETTING

The Planning Area is situated within two geographic subdivisions of the California Floristic Province: Sacramento Valley and Northern Sierra Nevada Foothills. Grassland is the dominant natural vegetation associated with the lowlands of the Planning Area, and oak woodlands are the most common natural vegetation in the foothills. These major vegetation types encompass smaller natural communities including riparian woodlands, vernal pools, and freshwater emergent wetlands.

The Planning Area lies within western Placer County, which is bounded north and south by two major rivers: the Bear and the American. Numerous drainages form in the foothills and flow through the Planning Area. These multiple drainages create a patchwork of small watersheds (Placer County 2011).

The vast majority of land in the Planning Area consists of built-up urban and suburban land uses. The northwestern portion and parts of the western portion of the Planning Area support annual grassland. The north-central area contains some valley oak woodland, and the far northeastern spur (Upper Clover Valley) contains blue oak woodland. Blue oak woodland/oak savannah dominates the eastern boundaries of the Planning Area and occupies portions of the central area along stream channels (**Figure 4.10-1**).

Wetland habitats are dispersed throughout the Planning Area. These are predominantly vernal pools and vernal pool complexes, freshwater emergent wetlands, and ponds. Other aquatic resources in the Planning Area include the Orchard Creek, Pleasant Grove Creek, Clover Valley Creek, Antelope Creek, Sucker Creek, and Secret Ravine Creek channels and their associated riparian habitats.

Table 4.10-1 summarizes the extent of land cover types (including natural habitats) within the Planning Area based on mapping prepared for the Placer Legacy Project.

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**TABLE 4.10-1
ACREAGE OF HABITAT TYPES WITHIN THE PLANNING AREA**

Land Cover Type	Acres
Annual grassland	2,965
Urban/Suburban (includes urban parks and golf courses)	6,790
Oak savannah/oak woodlands	1,920
Vernal pools & vernal pool complexes	413
Riverine	258,532 linear feet (49 miles)*
Valley foothill riparian woodland	116
Freshwater wetland (includes fresh emergent wetlands, lacustrine and ponds)	100
TOTAL	12,188 acres and 49 stream miles

*Stream width data unavailable; therefore, acreage cannot be calculated. Source: USGS 2008

Annual Grassland

Annual grassland habitats support relatively low plant diversity and are commonly dominated by wild oats (*Avena* sp.), soft chess (*Bromus hordeaceus*), and ripgut grass (*Bromus diandrus*). These non-native plant species have invaded much of the grasslands in California, and only scattered islands of native grasslands continue to exist. Common bird species supported by annual grasslands in the Planning Area include western meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), loggerhead shrike (*Lanius ludovicianus*), and Brewer's blackbird (*Euphagus cyanocephalus*). Predatory birds such as white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), sharp-shinned hawk (*Accipiter striatus*), golden eagle (*Aquila chrysaetos*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), northern harrier (*Circus cyaneus*), burrowing owl (*Athene cunicularia*), and great horned owl (*Bubo virginianus*) are typical of annual grasslands in the Rocklin area (City of Rocklin 2008).

Urban

Common species of mature trees, shrubs, and herbaceous vegetation are associated with urban areas. Typically, the plants integrated into landscape designs are non-native species, although many native oaks have been integrated into landscapes throughout the Planning Area. The habitat value of these areas has been altered by the development of residential and commercial structures, roadways, and other urban facilities. Common wildlife species occurring in the urbanized portions of the Planning Area include lesser goldfinch (*Carduelis psaltria*), western scrub-jay (*Aphelocoma caerulescens*), Anna's hummingbird (*Calypte anna*), house sparrow (*Passer domesticus*), California ground squirrel (*Spermophilus beecheyi*), western gray squirrel (*Sciurus griseus*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and a variety of small rodents (City of Rocklin 2008).

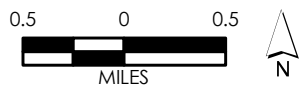
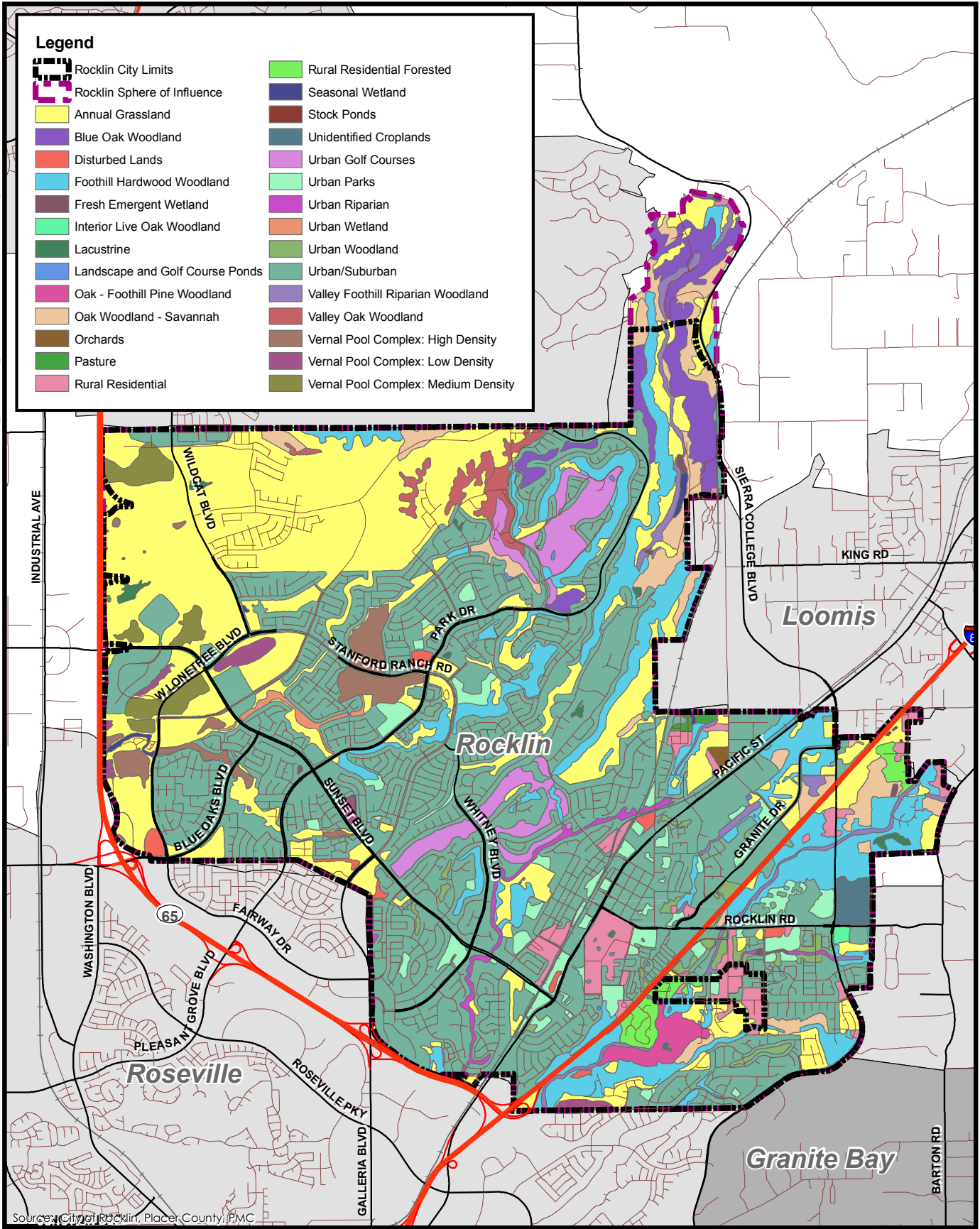


Figure 4.10-1
Habitat Map

Oak Savannah/Oak Woodlands

Oak savannah habitats in the Planning Area are dominated by blue oak (*Quercus douglasii*), valley oak (*Q. lobata*), and interior live oak (*Q. wislizeni*), with an understory of herbaceous annual species found in the annual grassland communities. Associations of predominantly blue oak and foothill pine (*Pinus sabiniana*) are typical of oak-foothill woodland habitats. Other oak woodland types found in the Planning Area include blue oak woodland, foothill hardwood woodland, interior live oak woodland, and valley oak woodland. Typical bird species found in these habitats include western kingbird, Brewer's blackbird, mourning dove (*Zenaidura macroura*), turkey vulture (*Cathartes aura*), great horned owl, acorn woodpecker (*Melanerpes formicivorus*), western scrub-jay, yellow-rumped warbler (*Dendroica coronata*), and American kestrel. Other species typical of this habitat include black-tailed deer (*Odocoileus hemionus columbianus*), western gray squirrel, arboreal salamander (*Aneides lugubris*), California newt (*Taricha torosa*), southern alligator lizard (*Gerrhonotus multicarinatus*), Gilbert's skink (*Eumecis gilberti*), raccoon, coyote (*Canis latrans*) and mule deer (*Odocoileus hemionus*) (City of Rocklin 2008).

Wetlands/Open Water

There are approximately 258,532 linear feet (49 miles) of streams within the Planning Area as well as up to 510 acres of wetlands, vernal pools, and other open water resources according to the National Wetlands Inventory, Placer County (2011), and the National Hydrography Dataset (USGS 2008). Some of these areas are protected by the state, county, or local government as preserves for wildlife habitat and other ecological functions these communities serve.

Vernal Pool and Vernal Pool Grassland

Annual grasslands associated with vernal pool formations are classified as vernal pool grassland; therefore, both cover types are discussed together. A vernal pool is a type of seasonal wetland habitat that exhibits a four-stage hydrologic cycle and develops as a result of complex interactions between climate, geology, soils, the hydrologic cycle of the area, and chemical and evolutionary processes. The four hydrologic stages include a wetting phase, an aquatic or inundation phase, a waterlogged terrestrial phase, and a dry or drought phase. Specifically, vernal pools found in the Planning Area are of the Northern Volcanic Mudflow Vernal Pool classification and vary in size and soil depth. Higher and drier pools integrate closely with wetland and grassland cover types, while more stable, deeper vernal pools are often integrated with freshwater marsh cover types. Both the grassland cover type and freshwater marsh cover type are found within the Planning Area.

Many animal species found in the grassland cover type are also found in the vernal pool grassland cover type. Some species found in vernal pool and vernal pool grassland cover types have adapted to specific conditions and are thus only found in those cover types. Of those types, some of these species may utilize the vernal pool and vernal pool grassland habitats only during specific stages of vernal pools while others can be found year-round.

There are multiple ecological relationships between vernal pool associated flora and fauna. Vernal pools and the adjacent upland contain habitat elements that are required in the life cycle of several species of amphibians, birds, and mammals. The seasonal hydrology of vernal pools precludes the establishment of predatory fish and bullfrog populations that feed on tadpoles and metamorphosing young. Vernal pools therefore provide high quality breeding and rearing sites for amphibians. Amphibians, such as the federally threatened California tiger salamander (*Ambystoma californiense*), utilize vernal pools for breeding and for tadpole habitat during the wet periods. In addition, abandoned small mammal burrows provide shelter for some

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amphibians such as western spadefoot toad (*Spea hammondi*) and California tiger salamander.

A group of aquatic crustaceans, known as branchiopods, have adapted to rely almost exclusively on the unique hydrology of vernal pools for their survival. Species of branchiopods that may be found within the Planning Area include California linderiella (*Linderiella occidentalis*), the federally listed conservancy fairy shrimp (*Branchinecta conservatio*), and federally listed vernal pool fairy shrimp (*Branchinecta lynchi*). These particular species are found in vernal pools year-round, surviving the drought period buried in the mud in cyst form. Two species of snail are also found in vernal pools and survive the dry period in a similar manner. Vernal pool invertebrates and vertebrates provide high-protein food sources for birds (especially important for migrating species such as Canada geese). Vernal pool branchiopod eggs can be consumed and passed undamaged through the digestive tract of foraging birds, which take flight to other aquatic environments where the eggs may be deposited, thereby inoculating new sites (Eriksen and Belk 1999). In addition, eggs can be carried away in mud attached to the feathers or feet of birds and grazing animals, which offers the opportunity for long distance transport before the mud is washed off in another aquatic environment (Eriksen and Belk 1999). The dispersal of seeds and eggs is key to maintaining genetic diversity within populations. The exact nature of the relationship between mammals and vernal pools has not been documented, but some evidence is available that shows that smaller species such as rabbits may spread seeds and eggs (Zedler and Black 1992).

Streams/Water Courses

The streams cover type is found throughout the Planning Area and holds a vital role in ecosystem function within that area. Streams found in the Planning Area include ephemeral (generally flowing for a short time after extreme storms), intermittent (generally flowing only during the wet season), and perennial streams (generally flowing year-round). While a few streams are intermittent, some, such as Sucker Creek, Antelope Creek, Pleasant Grove Creek, Clover Valley Creek, and Secret Ravine Creek, contain water year-round. Streams are interspersed with other cover types.

Streams are important to biological resources in the Planning Area as they convey water to habitats and cover types, attenuate storm flows through the action of vegetation found in the streams, provide habitat for nesting, mating, and migrating birds, and provide migration routes for animals between cover types. Many streams in the area vary in their ecological integrity and condition.

Fresh Emergent Wetland

Fresh emergent wetland areas found within or adjacent to vernal pool grassland exhibit many of the characteristics of vernal pools and can support plant species such as sedges (*Cyperus* spp.), umbrella sedges (*Cyperus* spp.), dock (*Rumex* spp.), and rushes (*Juncus* spp.), as well as animal species similar to those found in vernal pools. Fresh emergent wetland areas that are inundated year round support reeds, bulrushes (*Scirpus* spp.), and cattails (*Typha* spp.).

This cover type provides very productive habitat for wildlife, providing abundant food for animal species, as well as nesting, resting, and breeding sites.

Lacustrine/Ponds

This habitat type is characterized by large areas of permanently flooded land including lakes, stock ponds, and landscape and golf course ponds. Open water supports aquatic plants both on the surface of the water and along the edges of waterbodies and, in turn, provides food for insects and wildlife. Algae and plankton populations are also supported by open water, thereby providing food for fish and invertebrates. Many species of birds and mammal species are known to utilize this cover type within the Planning Area.

Pasture Grassland

This cover type is characterized by generally flat to rolling terrain and consists of land currently or previously grazed by livestock. The plant species and animal species found on this cover type are largely determined by the adjacent cover types as well as the management practices of the land (i.e., irrigation practices, type of livestock pastured, fertilization, etc.). Animal species found in this cover type include ground-nesting birds such as waterfowl, pheasant, and crane. Deer have also been observed in the pasture grassland cover type.

SENSITIVE NATURAL COMMUNITIES

Sensitive habitats in the Planning Area include oak woodlands, wetlands, lakes, and streams. These habitats are likely to harbor priority plant and animal species or provide the potential for these species. These biotic communities in Placer County are considered sensitive by the California Department of Fish and Game (CDFG) because of their rarity, high biological diversity, and/or susceptibility to disturbance or destruction. Sensitive natural communities are described below.

Wetlands and Waters of the United States (Wetlands, Lakes, and Streams)

Wetland habitats, including fresh and seasonal wetlands, lakes, ponds, streams, and rivers, are protected under Section 404 of the federal Clean Water Act. These habitats support numerous special-status plant and animal species and are known to be highly productive and diverse ecosystems. Wetlands are often the most ecologically productive portion of the environment. Riparian habitats support numerous plant, fish, and wildlife species and are considered sensitive. Riparian vegetation provides shade, bank stabilization, sediment control, organic litter, large woody debris, nutrient control, microclimate, and wildlife habitat, all of which are required for a healthy, functioning ecosystem. Moreover, wetlands provide habitat for many special-status wildlife species, directly affect the habitat of most special-status fish species, and provide habitat for some of the special-status plant species in the Planning Area.

Oak Woodlands

Oak woodland is typically considered a sensitive habitat by CDFG and local agencies, although it is not currently tracked in the California Natural Diversity Database (CNDDDB). There is a great deal of concern about oak and other hardwood communities in California due to the rapid rate of urban development in the foothills where these communities are predominantly found. The City of Rocklin has recognized the value of native trees through the adoption of both General Plan policy provisions and the Rocklin Oak Tree Preservation Ordinance, described below under Regulatory Framework.

While the aesthetic, historical, environmental, and habitat values provided by California oak woodlands are well documented, the ecological value of any particular oak woodland can

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vary greatly depending on characteristics such as the size of the entire woodland; the size and density of the oak trees that make up the woodland; other habitats that exist within the oak woodland, such as a perennial stream or other water sources; and the diversity of understory vegetation and how it relates to the other oak woodlands and natural communities in the area.

Oak woodland habitats of high ecological value are characterized by large expanses of open space areas, containing greater densities of oak trees and providing a relatively contiguous forest canopy with diverse understory vegetation. In addition, these high ecological value oak woodlands often are associated with some type of substantial water source such as a creek, stream, or spring-fed pond.

However, there are numerous areas of oak woodland in the city, which due to site-specific characteristics (such as areas of second- or third-growth oaks or remnants of oak woodland existing on prior agricultural sites) offer substantially diminished ecological habitat value. In addition, many remaining sites with substantial numbers of oak trees and oak woodland habitat are adjacent to the built urban environment and are bordered by city streets, regional arterials, or freeways. These adjacencies to urban uses and transportation routes tend to diminish the value of the woodland habitat.

As discussed in sections 3.1 and 3.2 of the City's Urban Forest Management Plan, Rocklin's current oak woodlands have been greatly altered by past human activities. Virtually all of these oak woodlands were at least partially logged at various times over the past 150 years. Most of the existing trees in these stands are second- or third-growth trees, that is, trees that arose after the first or second round of tree cutting, respectively. Virtually all of the native first-growth oak woodland in Rocklin was harvested in the 1800s, since oaks, especially blue oaks, were the most common source of fuel in the area throughout the 19th century.

SPECIAL-STATUS SPECIES

The California Department of Fish and Game's California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) online inventory, and U.S. Fish and Wildlife Service (USFWS) online lists were queried for the USGS Rocklin, Clarksville, Folsom, Roseville, Lincoln, Citrus Heights, Pilot Hill, Auburn, and Gold Hill 7.5-minute topographic quadrangles to obtain a list of special-status wildlife, botanical, and fisheries resources with potential to occur or known to occur in the Planning Area and vicinity (CDFG 2008a and b; CNPS 2008; USFWS 2008). **Appendix E** includes a copy of the database query results. Locations of previously recorded special-status species occurrences within a 1-mile radius of the Planning Area are shown on **Figure 4.10-2**. Tables A-1 and A-2 in **Appendix E** present the special-status species that were evaluated to determine if they should be considered in the impact analysis of this report based on habitat suitability within the Planning Area, previously recorded occurrences of these species, and professional expertise.

The number and variety of species found within the Planning Area are due to the variety and distribution of suitable wetland and upland habitat types that occur within the Planning Area and the adjacent areas.

Special-Status Plants

In the Planning Area, special-status plants are species of plants that meet the definition of "endangered, rare, or threatened" under the California Environmental Quality Act (CEQA) (see Section 15380 of the State CEQA Guidelines). For the purposes of this document, this includes all species that meet any of the following criteria:

- Listed or proposed for listing as threatened or endangered under the Endangered Species Act (ESA) (50 Code of Federal Regulations (50 CFR 17-12 [listed plants] and various notices in the Federal Register [proposed species]).
- Candidates for possible future listing as threatened or endangered under the ESA.
- Listed or candidates for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 CCR 670.5).
- Listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.).
- Considered by CNPS to be rare, threatened, or endangered in California (CNPS Lists 1B and 2).

Plant inventories prepared by the CNPS provide one source of substantial evidence that is used by lead agencies to determine what plants meet the definition of endangered, rare, or threatened species, as described in Section 15380 of the CEQA Guidelines. For purposes of this document, the relevant inventories are List 1B (plants that are rare, threatened, or endangered in California and elsewhere) and List 2 (plants that are rare, threatened, or endangered in California but more common elsewhere). All plants listed in the CNPS inventory are considered “special plants” by CDFG. The term “special plants” is a broad term used by the CDFG to refer to all of the plant taxa inventoried by the California Natural Diversity Database (CNDDDB), regardless of their legal or protection status. Notation as a List 1B or 2 plant species does not automatically qualify the species as endangered, rare, or threatened within the definition of CEQA Guidelines Section 15380. Rather, CNPS designations are considered along with other available information about the status, threats, and population condition of plant species to determine whether a species warrants evaluation as an endangered, rare, or threatened species under CEQA. Other sources include consultation with biologists from federal, state, responsible, and trustee agencies with jurisdiction over natural resources of the project site and area; published and unpublished research; field survey records; local and regional plans adopted for the conservation of species (such as habitat conservation plans or natural community conservation plans); other CEQA or National Environmental Policy Act (NEPA) documents; or other relevant information. Plants on Lists 1A, 1B, and 2 of the CNPS inventory may qualify for listing, and CDFG recommends — and local governments may require — that these species be addressed in CEQA projects. However, a plant species need not be in the CNPS inventory to be considered a rare, threatened, or endangered species under CEQA.

Table 4.10-2 lists the special-status plant species that may occur within the Planning Area. A full list of species from the database search is included in Table A-1 in **Appendix E**. Each special-status plant species with suitable habitat within the Planning Area is considered in the impact analysis and discussed in more detail below.

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**TABLE 4.10-2
SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PLANNING AREA**

Habitat Type	Common Name	Scientific Name	Status		
			Federal	State1	CNPS2
Annual Grassland	Ahart's dwarf rush	<i>Juncus leiospermus</i> var. <i>ahartii</i>	~	~	1B
	big-scale balsamroot	<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	~	~	1B
	Red Bluff dwarf rush	<i>Juncus leiospermus</i> var. <i>leiospermus</i>	~	~	1B
Vernal Pool	dwarf downingia	<i>Downingia pusilla</i>	~	~	1B
	hispid bird's-beak	<i>Cordylanthus mollis</i> ssp. <i>hispidus</i>	~	~	2
	legenere	<i>Legenere limosa</i>	~	~	1B
	pincushion navarretia	<i>Navarretia myersii</i>	~	~	1B
Open Water	Boggs Lake hedge-hyssop	<i>Gratiola heterosepala</i>	~	SE	1B
	Sanford's arrowhead	<i>Sagittaria sanfordii</i>	~	~	1B
Oak Woodlands	Brandegee's clarkia	<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	~	~	1B

Status Codes:

1 State status

SE = Listed as endangered under the California Endangered Species Act

2 CNPS

List 1B = Plant species that are rare, threatened, or endangered in California and elsewhere.

List 2 = Plant species that are rare, threatened, or endangered in California but more common elsewhere.

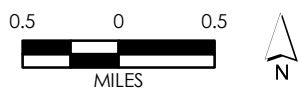
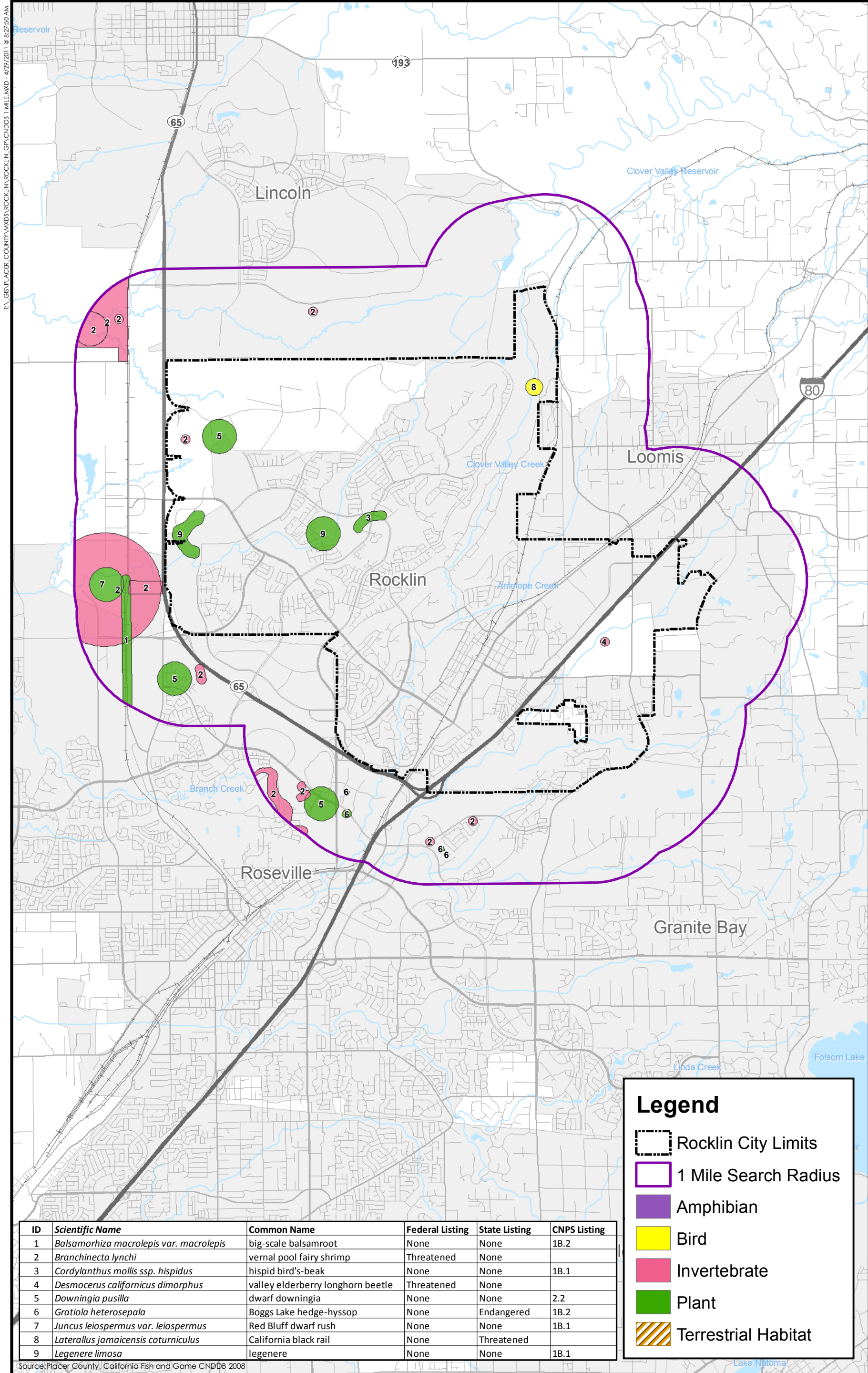


Figure 4.10-2
Recorded Occurrences of Special-Status Species
Within a 1-Mile Radius of the Project Study Area

Special-Status Wildlife

Special-status wildlife are animals that meet the definition of “endangered, rare, or threatened” under CEQA (State CEQA Guidelines Section 15380). For the purposes of this document, this includes all species that meet any of the following criteria:

- Listed or proposed for listing as threatened or endangered under the ESA (50 CFR 17-11 [listed animals] and various notices in the Federal Register [proposed species]).
- Candidates for possible future listing as threatened or endangered under the ESA.
- Listed or candidates for listing by the State of California as threatened or endangered under the CESA (14 CCR 670.5).
- Fully protected under California Fish and Game Code Section 3511 (birds), Section 4700 (mammals), and Section 5050 (reptiles and amphibians).
- On CDFG’s Special Animals Lists.

Range and habitat information for the special-status wildlife and plant species below was obtained from USFWS species accounts (USFWS 2008), the California Wildlife Habitat Relationships (CWHR) program version 8 (CDFG 2002), the CNDDDB, CNPS online inventory (CNPS 2008), and the Placer County Conservation Plan (Placer County 2005).

Table 4.10-3 lists the special-status wildlife species that have potential to occur in the Planning Area. A full list of species from the database search is included in Table A-2 in **Appendix E**. These are wildlife species that, according to results of database searches and known habitat types within the Planning Area, have potential to occur within the Planning Area and therefore have been considered in the impact analysis.

**TABLE 4.10-3
SPECIAL-STATUS WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PLANNING AREA**

Common Name	Scientific Name	Status	
		Federal	State
Central Valley steelhead	<i>Oncorhynchus mykiss irideus</i>	FT	
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	FT	
California red-legged frog	<i>Rana aurora draytonii</i>	FT	CSC
foothill yellow-legged frog	<i>Rana boylei</i>		CSC
California black rail	<i>Laterallus jamaicensis coturniculus</i>		ST
grasshopper sparrow	<i>Ammodramus savannarum</i>		CSC
merlin	<i>Falco columbarius</i>		CSC
northern harrier	<i>Circus cyaneus</i>		CSC
northwestern pond turtle	<i>Actinemys marmorata marmorata</i>	~	CSC
pallid bat	<i>Antrozous pallidus</i>	~	CSC
sharp-shinned hawk	<i>Accipiter striatus</i>		CSC
Swainson’s hawk	<i>Buteo swainsoni</i>		ST

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Common Name	Scientific Name	Status	
		Federal	State
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	~	CSC
tri-colored blackbird	<i>Agelaius tricolor</i>		CSC
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT	~
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	~
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE	~
western burrowing owl	<i>Athene cunicularia hypugea</i>		CSC
western spadefoot	<i>Spea hammondi</i>	~	CSC
white-tailed kite	<i>Elanus leucurus</i>		CFP

CODE DESIGNATIONS

Federal status	State status
FE = Listed as endangered under the Endangered Species Act	SE = Listed as endangered under the California Endangered Species Act
FT = Listed as threatened under the Endangered Species Act	ST = Listed as threatened under the California Endangered Species Act
	CSC = Species of Special Concern as identified by the CDFG
	CFP = Listed as fully protected under CDFG Code

Source: USFWS 2008; CDFG 2008a and b

The descriptions of special-status wildlife species that follow are separated into threatened, endangered, and sensitive species which have a higher level of protection due to their relatively limited distribution and legal status, and other non-listed special-status species which include California fully protected species, species of special concern, and species of local concern.

Range and habitat information for the special-status wildlife and plant species below was obtained from the CWHR program version 8 (CDFG 2002) and the CNDDDB (CDFG 2008a and b).

THREATENED, ENDANGERED, OR SENSITIVE SPECIES

Plants

Ahart's dwarf rush (*Juncus leiospemus* var. *ahartii*) is designated as a list 1B species by the CNPS. This small annual herb of the rush family (Juncaceae) is endemic to California and known from only six occurrences. It is found in vernal pools in valley and foothill grasslands with a moderate or well-balanced supply of moisture. This species blooms from March to May. Suitable habitat is present within the Planning Area. There is one recorded occurrence within 5 miles of the Planning Area.

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) is designated as a list 1B species by the CNPS. It is a perennial herbaceous member of the Asteraceae family that grows from a fleshy taproot and is found in cismontane woodland and valley and foothill grassland, sometimes on serpentine soils. The yellow disk flowers bloom from April through May. Suitable habitat is present within the Planning Area. There are three recorded occurrences within 5 miles, including one within 1 mile, of the Planning Area.

Boggs Lake hedge-hyssop (*Gratiola heterosepala*) is listed as endangered by the CDFG and designated as list 1B by the CNPS. This semi-aquatic annual herb of the figwort family

(Scrophulariaceae) grows up to 10 centimeters tall and produces small, white and pale yellow flowers. This species grows in marshes, swamps, lake margins, and vernal pools with clay soils. This species blooms from April to June, while the vernal pools are still inundated with less than 5 centimeters (2 inches) of water. Boggs Lake hedge-hyssop is currently known from only three occurrences in the western Placer County area. Two of these occurrences are located between Rocklin and Roseville; the third is located just north of Lincoln. Two of the three populations in Placer County were reportedly threatened by proposed urban development in 1987 and 1989. The current status of these populations is unknown; however, they are presumed to still exist. The third population was observed in 1986 on private land and has not been observed since, although it is presumed to still exist (Placer County 2005). Suitable habitat is present within the Planning Area. There are two recorded occurrences within 1 mile of the Planning Area.

Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*) is an herbaceous perennial in the evening primrose family (Onagraceae) and is designated as a list 1B species by the CNPS. Brandegee's clarkia is typically found in chaparral and cismontane woodlands, frequently in roadcuts and other clearings. This species typically flowers from May through July. Suitable habitat is present within the Planning Area, though it typically occurs at elevations of 700 to 3,000 feet. There is one recorded occurrence within 5 miles of the Planning Area.

Dwarf downingia (*Downingia pusilla*) is designated as a list 2 species by the CNPS. This herbaceous, annual flowering plant grows between 3 and 15 centimeters tall. Dwarf downingia is restricted to vernal pools and similar seasonal wetlands, including mesic grassland and the margins of small lakes or stock ponds. Seeds germinate in the standing water of the vernal pools. The plants grow to near full size while the pools are still inundated. This species blooms from March to May. Suitable habitat is present within the Planning Area. There are eleven recorded occurrences within 5 miles of the Planning Area, including three within 1 mile; one of these occurrences is within the northwest portion of the Planning Area.

Hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus*) is designated as a list 1B species by the CNPS. An annual herb in the figwort family (Scrophulariaceae), hispid bird's beak occurs in Alameda, Kern, Merced, Placer, and Solano counties, with Merced County having the greatest number of populations. Hispid bird's-beak, a hemiparasite, grows in saline or alkaline soils in vernal pools, meadows, sinks, inland playas, and valley and foothill grassland. It blooms June through September. Suitable habitat is present within the Planning Area. There is one recorded occurrence within the Planning Area.

Legenere (*Legenere limosa*) is designated as a list 1B species by the CNPS. Legenere is endemic to northern California in the Coast and Cascade ranges and the Central Valley. A majority of the known occurrences are concentrated in Solano and Sacramento counties, with the remainder scattered in Lake, Napa, Placer, San Joaquin, San Mateo, Shasta, Sonoma, Tehama, and Yuba counties. The species is currently known from only two occurrences in the western Placer area. One of the occurrences is located north of Pleasant Grove Creek, south of Placer Boulevard, and east of State Route (SR) 65. The second occurrence is at the Orchard Creek Conservation Bank approximately 3 miles southwest of Lincoln (Placer County 2005).

Legenere is an inconspicuous annual plant that grows to approximately 10–15 centimeters (4–6 inches) tall, but that can attain heights of up to 30 centimeters (12 inches). It is found in vernal pools and swales, seasonal marshes, artificial ponds, floodplains of intermittent streams, and other seasonally inundated habitats. Wetlands that support legenere are typically inundated for long periods and range in size from slightly more than 3.7 square meters (40 square feet) to 40 hectares (100 acres). Suitable habitat is present within the Planning Area. There are three

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recorded occurrences within 5 miles of the Planning Area, two of which are within the Planning Area.

Pincushion navarretia (*Navarretia myersii* ssp. *myersii*) is designated as a list 1B species by the CNPS. This annual herb of the phlox family (Polemoniaceae) is endemic to vernal pools along California's central valley, especially the east side. This species has tiny whitish flowers in usually single heads. This species blooms in May at elevations from 20 to 330 meters (65 to 1,080 feet). Suitable habitat is present within the Planning Area. There is one recorded occurrence within 5 miles of the Planning Area.

Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*) is designated as a list 1B species by the CNPS. Red Bluff dwarf rush is endemic to northern California where it occurs in Butte, Placer, Shasta, and Tehama counties. Only one population of Red Bluff dwarf rush, located near Roseville, has been recorded in Placer County. The population was last seen in 1982; however, a habitat survey conducted in 1997 indicates that the habitat is still present. Because of extensive recent development that has occurred in and around Roseville, this population may have been eliminated accordingly, confirmation is needed (Placer County 2005). Suitable habitat is present within the Planning Area. There is one recorded occurrence within 1 mile of the Planning Area.

Sanford's arrowhead (*Sagittaria sanfordii*) is designated as a list 1B species by the CNPS. This perennial herb of the water-plantain family (Alismaceae) occurs in assorted shallow freshwater marshes and swamps and artificial ponds and lakes. This species blooms from May to October. Suitable habitat is present within the Planning Area. There are three recorded occurrences within 5 miles of the Planning Area.

Wildlife

Invertebrates

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is federally listed as threatened. Valley elderberry longhorn beetle is endemic to the riparian areas of the Central Valley. The USFWS recognizes the range of valley elderberry longhorn beetle to include the watersheds of the American, San Joaquin, and Sacramento rivers and tributaries of these watersheds at elevations below about 900 meters (3,000 feet). Valley elderberry longhorn beetle primarily occurs in the greater Sacramento and northern San Joaquin valleys.

Valley elderberry longhorn beetle is known to occur in the American River watershed below Auburn in the vicinity of Folsom Lake, the Dry Creek watershed along Secret Ravine and Miners Ravine, the Wildlands Mitigation Bank, and the Bear River watershed near Wheatland (Sutter County). The taxon has not been observed in Placer County higher than 200 meters (650 feet) above sea level (Placer County 2005).

Habitat for valley elderberry longhorn beetle consists of elderberry shrubs (*Sambucus* sp.) with a basal diameter greater than 2.54 centimeters (1 inch) occurring in riparian forests or elderberry savannas adjacent to riparian vegetation. Suitable habitat is present within the Planning Area. There are six recorded occurrences within 5 miles of the Planning Area in the CBDDDB, including one within the Planning Area on Secret Ravine near Sierra College. Although there is only one recorded VELB occurrence in the Planning Area, the presence of VELB has been identified on more than one project that has been processed by the City.

Vernal pool fairy shrimp (*Branchinecta lynchi*) is federally listed as threatened. It occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid,

alkaline, grassland valley floor pools. Although the species has been collected from large vernal pools, including one exceeding 25 acres, it tends to occur in smaller pools. It is most frequently found in pools measuring less than 0.05 acre, most commonly in grass or mud-bottomed swales, or basalt flow depression pools in unplowed grasslands. Vernal pool fairy shrimp have been collected from early December to early May. Suitable habitat is present within the Planning Area. There are 35 recorded occurrences within 5 miles of the Planning Area, including 12 within 1 mile; one of these is within the northwest portion of the Planning Area.

Vernal pool tadpole shrimp (*Lepidurus packardii*) is federally listed as endangered. They inhabit vernal pools containing clear to highly turbid water, ranging in size from 54 square feet in the former Mather Air Force Base area of Sacramento County to the 89-acre Olcott Lake at Jepson Prairie. Tadpole shrimp climb objects and plow along or within bottom sediments feeding on organic debris and living organisms, such as fairy shrimp and other invertebrates. Suitable habitat is present within the Planning Area. There is one recorded occurrence within 5 miles of the Planning Area.

Fish

Steelhead and Chinook salmon (spring-run, fall-run, late fall-run, and winter-run) require cold, clean water flowing over a gravel bottom in order to successfully reproduce. These species are known to occur in the Sacramento River and many of its tributaries. Steelhead and fall-run salmon use portions of Secret Ravine, which runs through the Planning Area.

Central Valley ESU steelhead (*Oncorhynchus mykiss irideus*) is federally listed as threatened in its range within the Sacramento and San Joaquin rivers and their tributaries, which are its spawning streams. It is now eliminated from most of historical range; the majority of native, natural production occurs in upper Sacramento River tributaries below Red Bluff Diversion Dam, but these populations are nearly eliminated as well. The American, Feather, and Yuba (and possibly the upper Sacramento and Mokelumne) rivers also have naturally spawning populations, but these have had substantial hatchery influence and their ancestry is not clearly known. This Evolutionarily Significant Unit (ESU) does not include steelhead from San Francisco and San Pablo bays and their tributaries.

Very few sampling efforts have been conducted in Placer County streams. Juvenile steelhead have been identified by the CDFG in Secret Ravine (Placer County 2005).

Steelhead migrate from the Pacific Ocean to the Central Valley rivers from approximately November through May. Peak spawning occurs January through March. Juvenile steelhead emigration varies according to how long they rear in their natal streams, but peak migration occurs in March and April. Steelhead are dependent on suitable water temperature and substrate for successful spawning and incubation.

As juvenile steelhead have been identified in Secret Ravine, it is possible they could occur within that stream and potentially the other perennial streams in the Planning Area: Antelope and Sucker creeks. However, despite the information noted above, there are no currently recorded occurrences within 5 miles of the Planning Area.

Fall-run **Chinook salmon** (*Oncorhynchus tshawytscha*) is a federally threatened species that may enter the American River, and its tributaries (e.g., Secret Ravine), from mid-September through January. Peak upstream migration generally occurs from mid-October through December, through spawning may occur from mid-October through February. Fall-run Chinook salmon exhibit "ocean type" behavior, in which adult salmon spawn immediately upon entering the

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spawning tributary. This strategy is in contrast to “stream type” behavior, in which the sexual products (eggs and sperm) become mature while the fish is in the stream environment (e.g., winter-run and spring-run Chinook salmon). Adults of all races of Chinook salmon die soon after spawning. Fall-run Chinook salmon fry are known to emerge from the American River spawning gravels from January through mid-April. They rear to smoltification in the American River from January through mid-July, leaving freshwater habitat within their first year of life.

It is possible Chinook salmon could occur within Secret Ravine and potentially the other perennial streams in the Planning Area (Antelope and Sucker creeks). However, despite the information noted above, there are no currently recorded occurrences within 5 miles of the Planning Area.

Amphibians

California red-legged frog (*Rana aurora draytonii*) is federally listed as threatened and a California species of special concern. California red-legged frogs are endemic to California. Their historical range extended coastally from the vicinity of Point Reyes National Seashore in Marin County, and inland from the vicinity of Redding, south to northwestern Baja California. The species' current coastal distribution extends from Sonoma to Los Angeles counties; it also occurs in isolated locations in the Sierra Nevada (including Butte, El Dorado, and Nevada counties) and the northern Transverse Ranges. It is relatively common in the San Francisco Bay area and along the central coast. California red-legged frogs are believed eliminated from the floor of the Central Valley. Population status and trends in Placer County are difficult to determine because little information on locations of California red-legged frog is available (Placer County 2005).

California red-legged frogs have been found at elevations from sea level to about 1,500 meters (5,000 feet). They use a variety of habitat types; these include various aquatic, riparian, and upland habitat. However, individual frogs may complete their entire life cycle in a pond or other aquatic site that is suitable for all life stages. California red-legged frogs breed in aquatic habitats such as marshes, ponds, deep pools and backwaters in streams and creeks, lagoons, and estuaries. Breeding adults are often associated with dense, shrubby riparian or emergent vegetation and areas with deep (>0.7 meter [27 inches]) still or slow-moving water. However, these frogs often successfully breed in artificial ponds with little or no emergent vegetation and have been observed in stream reaches that are not covered in riparian vegetation. An important factor influencing the suitability of aquatic breeding sites is the general lack of introduced aquatic predators. Suitable habitat is present within the Planning Area. There are no recorded occurrences within 5 miles of the Planning Area.

Birds

Swainson's hawk (*Buteo swainsoni*) is state listed as threatened and is protected under the Migratory Bird Treaty Act (MBTA). In California, Swainson's hawk nesting distribution includes Great Basin sage-steppe communities and associated agricultural valleys in extreme northeastern California, isolated valleys in the Sierra Nevada in Mono and Inyo counties, the Sacramento and San Joaquin valleys, and at least one known isolated breeding site in the Mojave Desert. The historic breeding distribution also included much of southern California, particularly the inland valleys, where the species was once considered common (Placer County 2005).

In California, Swainson's hawk habitat generally consists of large, flat, open, undeveloped landscapes that include suitable grassland or agricultural foraging habitat and sparsely distributed trees for nesting. Swainson's hawks usually nest in large, native trees such as valley

oaks, cottonwoods (*Populus fremontii*), and willows (*Salix* spp.), although non-native trees such as eucalyptus (*Eucalyptus* spp.) are also used. Nests occur in riparian woodlands, roadside trees, trees along field borders, isolated trees, small groves, trees in windbreaks, and the edges of remnant oak woodlands. Swainson's hawks typically forage in large fields that support low vegetative cover (to provide access to the ground) and provide the highest densities of prey. There are four recorded occurrences within 5 miles of the Planning Area.

California black rail (*Laterallus jamaicensis coturniculus*) is listed as a threatened species and protected pursuant to the California Endangered Species Act, is fully protected pursuant to California Fish and Game Code Section 3511, and is a USFWS bird of conservation concern. Typical habitat for black rails includes coastal saltmarsh, delta emergent marsh, and interior freshwater emergent marsh. California black rails are a year-round resident in the San Francisco Bay region and at inland locations within Placer, Yuba, Butte, and Nevada counties. Nesting typically occurs during March through July. Potentially suitable habitat within the Planning Area includes fresh emergent wetlands.

SPECIES OF SPECIAL CONCERN

Amphibians

Western spadefoot (*Spea hammondi*) is a California species of special concern. Western spadefoot primarily occurs in California, but it has been recorded from the vicinity of Redding in Shasta County south into Baja California. Western spadefoots have been recorded from 17 counties either in or bordering the Central Valley. Western spadefoot occurs in the vicinity of the Planning Area, along the interface of the Central Valley and Sierra Nevada foothills. All but one of the known occurrences are in the Roseville area (Placer County 2005; CDFG 2008a and b).

Western spadefoots can be found in dry grassland habitat close to seasonal wetlands such as vernal pool complexes, typically near extensive areas of friable (but not usually sandy) soil. Although spadefoot populations primarily occur in grassland settings, they are occasionally found in valley-foothill woodlands. Western spadefoots can also be found in creeks, drainages, and ponds.

Western spadefoots require seasonal wetlands for reproduction and metamorphosis. The specific physical attributes that make such wetlands and adjacent uplands suitable for spadefoots are not well known, but suitable ponds must exhibit sufficient depth and surface area to persist at least several weeks. It is assumed that spadefoots require loose soils for subsurface dormancy; however, there is some evidence that spadefoots may also use rodent burrows. Also, most sites that support western spadefoots are moderately to heavily grazed (Placer County 2005).

There are five recorded occurrences within 5 miles of the Planning Area, one of which is within 1 mile.

Foothill yellow-legged frog (*Rana boylei*) is a California species of special concern. The foothill yellow-legged frog is a highly aquatic amphibian, spending most or all of its life in or near streams, though frogs have been documented underground and beneath surface objects more than 50 meters (165 feet) from water (Nussbaum, Brodie, and Storm 1983). The habitat requirements of foothill yellow-legged frog are poorly understood (Van Wagner 1996). However, foothill yellow-legged frogs are characteristically found close to water in association with perennial streams and ephemeral creeks that retain perennial pools through the end of summer. The Planning Area is located within the range of species.

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There are no documented occurrences of foothill yellow-legged frogs in or within 5 miles of the Planning Area. However, perennial streams and ephemeral creeks within the Planning Area may support habitat for the species.

Reptiles

Northwestern pond turtle (*Actinemys marmorata marmorata*) is a California species of special concern. Western pond turtles occur from Puget Sound in Washington south through Oregon and California generally west of the Cascade-Sierra crest and into Baja California. In the Central Valley, western pond turtles historically inhabited the vast permanent and seasonal wetlands of the area, with the Tulare Lake Basin as a major population center. Today, northwestern pond turtles (*A. m. marmorata*, one of two recognized subspecies) occur in 90 percent of their historic range in the Central Valley and west of the Sierra Nevada, but in greatly reduced numbers. They are found from the Oregon border south to the American Basin in the Central Valley, where they intergrade with the southern subspecies, the southwestern pond turtle (*A. m. pallida*). The area of the Central Valley between the American River drainage and the Transverse Ranges is considered to be a zone of intergradation between the two subspecies (Placer County 2005).

Western pond turtles inhabit a variety of aquatic habitats from sea level to elevations of 1,980 meters (6,500 feet). They are found in rivers, streams, lakes, ponds, wetlands, reservoirs, and brackish estuarine waters. Western pond turtles use aquatic habitats primarily for foraging, thermoregulation, and avoidance of predators. They require emergent basking sites and have been observed to avoid areas of open water lacking them. Basking sites can include rocks, logs, or emergent vegetation and are used by the turtles for thermoregulation.

Suitable habitat is present within the Planning Area. There are three recorded occurrences within 5 miles of the Planning Area.

Birds

Grasshopper sparrow (*Ammodramus savannarum*) is a California species of special concern and is protected by the MBTA. Grasshopper sparrows are primarily found from the Great Plains to the eastern seaboard, with a few isolated populations in the western United States, including some in California. Their statewide distribution is best described as sparse and irregular.

In California, grasshopper sparrows require dry, well-drained grasslands with patches of bare ground. These grasslands often include scattered, taller shrubs or annuals that are used for song perches. In Placer and adjacent counties, grasshopper sparrows have been found on rolling hills with extensive patches of rye grass (*Secale* spp.) along the western and eastern edges of the Central Valley (Placer County 2005). Suitable habitat is present within the Planning Area. There is one recorded occurrence within 5 miles of the Planning Area.

Tricolored blackbird (*Agelaius tricolor*) is a California species of special concern. Tricolored blackbirds are largely endemic to California, and more than 99 percent of the global population occurs in the state. In any given year, more than 75 percent of the breeding population can be found in the Central Valley. The species' historical breeding range in California included the Sacramento and San Joaquin valleys, lowlands of the Sierra Nevada south to Kern County, the coast region from Sonoma County to the Mexican border, and sporadically on the Modoc Plateau (Placer County 2005).

Tricolored blackbirds have three basic requirements for selecting their breeding colony sites: open accessible water; a protected nesting substrate, including either flooded or thorny/spiny

vegetation; and a suitable foraging space providing adequate insect prey within a few miles of the nesting colony.

Foraging habitats in all seasons include annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields (e.g., large tracts of alfalfa with continuous mowing schedules and recently tilled fields), cattle feedlots, and dairies. Tricolored blackbirds also forage occasionally in riparian scrub habitats and along marsh borders. Grassland/vernal pool complexes and rice fields characterize the landscape in much of the species' breeding range and preferred foraging habitats in the area encompassing the Planning Area. Suitable habitat is present within the Planning Area. There are two recorded occurrences within 5 miles of the Planning Area.

Merlin (*Falco columbarius*) is not listed pursuant to either the California or federal Endangered Species Acts, but is a CDFG species of special concern. This falcon breeds in Canada and Alaska and occurs in California as a migrant during the non-breeding season (September through April). Foraging habitat includes a wide range of open environments including seacoast estuaries, desert, open grasslands, and semi-open woodlands.

There are documented occurrences of the merlin in or within 5 miles of the Planning Area. Merlin do not nest in this region but may occur in riparian and woodland communities during migration and winter dispersal.

Northern harrier (*Circus cyaneus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is considered to be a species of special concern by the CDFG. This species is known to nest within the Central Valley, along the Pacific Coast, and in northeastern California. The northern harrier is a ground nesting species and typically nests in emergent wetland/marsh, open grasslands, or savannah communities. Foraging occurs within a variety of open environments such as marshes, agricultural fields, and grasslands.

There are documented occurrences of northern harrier in or within 5 miles of the Planning Area. Grassland, pasture, and fresh emergent marsh support potentially suitable nesting habitat for this species.

Sharp-shinned hawk (*Accipiter striatus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a species of special concern by the CDFG. The species is a common migrant and winter resident in the Central Valley of California. A wide variety of communities, with the exception of open prairie, bare desert, and alpine, are used during winter. Sharp-shinned hawks breed in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine communities. Nests are usually found in dense, even-aged, single-layer forests near water. Conifers appear to be most frequently used, although deciduous trees are the norm in some locals. Breeding occurs from April through August with the peak season from May to July).

There are no documented occurrences of sharp-shinned hawk in or within 5 miles of the Planning Area. Sharp-shinned hawks do not nest in this region but may occur in riparian and woodland communities during migration and winter dispersal.

Western burrowing owl (*Athene cunicularia hypugea*) is a California species of special concern. In California, the range of the western burrowing owl extends through the lowlands south and west from north central California to Mexico, with small, scattered populations occurring in the Great Basin and the desert regions of the southwestern part of the state.

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Burrowing owls are found in open, dry grasslands, agricultural and rangelands, and desert habitats, often associated with burrowing animals. They can also inhabit grass, forb, and shrub stages of piñon and ponderosa pine habitats. They can be found at elevations ranging from 200 feet below sea level to 9,000 feet above. Burrowing owls commonly perch on fence posts or on mounds outside the burrow. They can be found at the margins of airports and golf courses and in vacant urban lots. Burrowing owls in California are commensal with California ground squirrels in rangeland and agricultural areas (Placer County 2005).

Burrowing owls tend to be resident where food sources are stable and available year-round. They disperse or migrate south in areas where food becomes seasonally scarce. Burrowing owls in migratory populations also often re-nest in the same burrow, particularly if the previous year's breeding was successful. Other birds in the same population may move to burrows near their previous year's burrow.

Suitable habitat is present within the Planning Area. There are two recorded occurrences within 5 miles of the Planning Area.

White-tailed kite (*Elanus leucurus*) is a California fully protected species. They nest in trees adjacent to grasslands, oak woodland, and on the edges of riparian habitats. This species roosts communally, is a resident year-round, and breeds from February to October. Suitable habitat is present within the Planning Area. There are three recorded occurrences within 5 miles of the Planning Area, including one within 1 mile.

Raptors and Other Migratory Birds. Many bird species are migratory and fall under the jurisdiction of the Migratory Bird Treat Act (MBTA). Various migratory birds and raptor species, in addition to those described in detail above, have the potential to inhabit the project vicinity. Oak titmouse (*Baeolophus inornatus*), snowy egret (*Egretta thula*), and great blue heron (*Ardea herodias*), among others, are known to occur within the Planning Area. Some raptor species, such as red-tailed hawk, Cooper's hawk, and American kestrel, are not considered special-status species because they are not rare or protected under the ESA or the CESA; however, the nests of all raptor species are protected under the MBTA and Section 3503.5 of the Fish and Game Code. Migratory birds forage and nest in multiple habitats such as annual grasslands and riparian oak woodlands. The nests of all migratory birds are protected under the MBTA, which makes it illegal to destroy any active migratory bird nest. The trees found within the Planning Area and in the vicinity provide potential nesting habitat for raptors and migratory birds that occur in the region.

Mammals

Pallid bat (*Antrozous pallidus*) is a California species of special concern. Pallid bats roost in rock crevices, tree hollows, mines, caves, and a variety of anthropogenic structures, including vacant and occupied buildings. They occur primarily in arid habitats. Colonies are usually small and may contain 12 to 100 bats. Suitable habitat is present within the Planning Area. There is one recorded occurrence within 5 miles of the Planning Area.

Townsend's big-eared bat (*Corynorhinus townsendii*) is a California species of special concern. These bats hibernate in caves or mines where the temperature is 12 degrees Celsius (54 degrees Fahrenheit) or less, but usually above freezing. Townsend's big-eared bats have also been reported to utilize buildings, bridges, rock crevices, and hollow trees as roost sites. These bats are highly sensitive to human disturbance at roosting, maternity, and hibernacula sites. This species will roost alone or in groups of 15–100 individuals. They feed primarily on moths and prefer to forage along the edge of clumps of native vegetation. Hibernation sites in caves often are near entrances in well-ventilated areas. They hibernate in clusters of a few to more than 100

individuals. Maternity colonies usually are located in relatively warm parts of caves. No long-distance migrations are known. Like many other bats, they return year after year to the same roost sites. They are found in western Canada, the western United States to southern Mexico, and a few isolated populations in the eastern United States (Placer County 2005). Suitable habitat is present within the Planning Area. There is one recorded occurrence within 5 miles of the Planning Area.

4.10.2 REGULATORY FRAMEWORK

Federal, state, and local regulations have been enacted to require consideration and protection of ecological habitats and the species they support. A brief discussion of the specific regulations that apply to the biological resources likely to occur in the City of Rocklin is included below.

FEDERAL

Endangered Species Act

The federal Endangered Species Act (ESA) protects fish and wildlife species that have been identified by the USFWS and/or the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) as endangered or threatened. It also protects the habitats in which they live. *Endangered* refers to species, subspecies, or distinct population segments that are in danger of extinction throughout all or a significant portion of their range, while *threatened* applies to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

The USFWS and NOAA Fisheries administer the ESA. In general, NOAA Fisheries is responsible for protection of ESA-listed marine species and anadromous fish, while other listed species come under USFWS jurisdiction. Key provisions of the ESA are summarized below under the section that implements them.

Section 10

Section 10 of the ESA provides a means for nonfederal entities (states, local agencies, and private parties) that are not permitted or funded by a federal agency to receive authorization to disturb, displace, or kill (i.e., take) threatened and endangered species. It allows the USFWS and/or NOAA Fisheries to issue an incidental take permit authorizing take resulting from otherwise legal activities, as long as the take would not jeopardize the continued existence of the species. Section 10 requires the applicant to prepare a Habitat Conservation Plan (HCP) addressing project impacts and proposing mitigation measures to compensate for those impacts. The HCP is subject to USFWS and/or NOAA Fisheries review and must be approved by the reviewing agency or agencies before the proposed project can be initiated. Because the issuance of the incidental take permit is a federal action, the USFWS and/or NOAA Fisheries must also comply with the requirements of ESA Section 7 and the National Environmental Policy Act.

Section 7

Section 7 of the ESA applies to the management of federal lands as well as other federal actions, such as federal approval of private activities through the issuance of federal permits, licenses, funding, or other actions that may affect listed species. Section 7 directs all federal agencies to use their existing authorities to conserve threatened and endangered species and, in consultation with the USFWS, to ensure that their actions do not jeopardize listed species or

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destroy or adversely modify critical habitat. Critical habitat is defined as specific areas that are essential to the conservation of federally listed species.

Migratory Bird Treaty Act

The MBTA enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. Most actions that result in a taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. Examples of permitted actions that do not violate the MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird banding, and other similar activities. The USFWS is responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture's Animal Damage Control Officer makes recommendations on related animal protection issues.

Clean Water Act (33 USC 1251 et seq.)

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

Section 404

The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Specific sections of the act control the discharge of pollutants and wastes into aquatic and marine environments. Section 404 (b)(1) of the CWA, as amended in 1977, requires that the U.S. Army Corps of Engineers (USACE) evaluate the impact of the discharge of dredged or fill materials into the waters of the United States. Subpart A, Section 230.1(c) of Section 404 (b)(1) guidelines states the following: "Fundamental to these guidelines is the precept that dredged or fill materials should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge would not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting ecosystems of concern."

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

Section 401

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

Executive Order 13112 – Invasive Species

This executive order directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species. As part of the proposed action, the USFWS and USACE would issue permits and therefore would be responsible for ensuring that the proposed action complies with Executive Order 13112 and does not contribute to the spread of invasive species.

The Fish and Wildlife Coordination Act of 1958 (16 USC 661 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that whenever any body of water is proposed or authorized to be impounded, diverted or otherwise controlled or modified, the lead federal agency must consult with the USFWS, the state agency responsible for fish and wildlife management, and the National Marine Fisheries Service. Section 662(b) of the act requires the lead federal agency to consider the recommendations of USFWS and other agencies. The recommendations may include proposed measures to mitigate or compensate for potential damages to wildlife and fisheries associated with a modification of a waterway.

Executive Order 11990 Protection of Wetlands (42 FR 26961, 25 May 1977)

Executive Order 11990 requires federal agencies to provide leadership and take action to minimize destruction, loss, or degradation of wetlands and to preserve and enhance the natural qualities of these lands. Federal agencies are required to avoid undertaking or providing support for new construction located in wetlands unless (1) no practicable alternative exists, and (2) all practical measures have been taken to minimize harm to wetlands.

STATE

California Endangered Species Act

The California Endangered Species Act (CESA) protects wildlife and plants listed as endangered or threatened under the act by the California Fish and Game Commission. The CDFG administers the CESA. The CESA prohibits all persons from taking species that are state listed as threatened or endangered except under certain circumstances. The CESA definition of “take” is any action or attempt to “hunt, pursue, catch, capture, or kill.” Section 2081 of the Fish and Game Code provides a means by which agencies or individuals may obtain authorization for incidental take of state-listed species, except for certain species designated as “fully protected” under the California Fish and Game Code (see California Fish and Game Code below). Take must be incidental to, not the purpose of, an otherwise lawful activity. Requirements for a Section 2081 permit are similar to those used in the ESA Section 7 process, including identification of impacts on listed species, development of mitigation measures that minimize and fully mitigate impacts, development of a monitoring plan, and assurance of funding to implement mitigation and monitoring.

4.10 BIOLOGICAL RESOURCES

California Fish and Game Code

Fully Protected Species

Certain species are considered fully protected, meaning that the code explicitly prohibits all take of individuals of these species except for take permitted for scientific research. Section 5050 lists fully protected amphibians and reptiles, Section 5515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.

It is possible for a species to be protected under the California Fish and Game Code, but not fully protected. For instance, mountain lion (*Puma concolor*) is protected under Section 4800 et seq., but is not a fully protected species.

Protection of Birds and their Nests

Eggs and nests of all birds are protected under Section 3503 of the California Fish and Game Code, nesting birds (including raptors and passerines) under Sections 3503.5 and 3513, and birds of prey under Section 3503.5. Migratory non-game birds are protected under Section 3800 and other specified birds under Section 3505.

Stream and Lake Protection

The CDFG has jurisdictional authority over streams and lakes and the wetland resources associated with these aquatic systems under California Fish and Game Code Sections 1600 et seq. through administration of lake or streambed alteration agreements. Such agreements are not a permit, but rather a mutual accord between the CDFG and the project proponent. California Fish and Game Code Section 1600 et seq. was repealed and replaced in October of 2003 with the new Section 1600–1616 that took effect on January 1, 2004 (Senate Bill No. 418 Sher). Under the new code, the CDFG has the authority to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river lake or stream.” The CDFG enters into a streambed alteration agreement with the project proponent and can impose conditions in the agreement to minimize and mitigate impacts to fish and wildlife resources. Because the CDFG includes under its jurisdiction streamside habitats that may not qualify as wetlands under the federal CWA definition, CDFG jurisdiction may be broader than USACE jurisdiction.

State and local public agencies are subject to Section 1602 of the Fish and Game Code, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the CDFG. Under Section 1602, a discretionary Stream Alteration Agreement permit from the CDFG must be issued by the CDFG to the project developer prior to the initiation of construction activities within lands under CDFG jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

Porter-Cologne Water Quality Control Act of 1966 (California Water Code Sec. 13000 et seq.; CCR Title 23, Chapter 3, Subchapter 15)

Porter-Cologne is the primary state regulation that addresses water quality. The requirements of the act are implemented by the State Water Resources Control Board (SWRCB) at the state level and by the Regional Water Quality Control Board (RWQCB) at the local level. The RWQCB carries out planning, permitting, and enforcement activities related to water quality in California. The act provides for waste discharge requirements and a permitting system for discharges to land or water. Certification is required by the RWQCB for activities that can affect water quality.

LOCAL

City of Rocklin Oak Tree Preservation Ordinance

The City of Rocklin has recognized the value of native trees through the adoption of the Oak Tree Preservation Ordinance, Chapter 17.77 of the City of Rocklin Municipal Code. The ordinance contains policy language that is explicitly written to protect native oaks. These policies regulate both the removal of protected trees and the encroachment of construction activities into the protected zones of these trees. Ordinances 17.77.030 and 17.77.050 prohibit the removal of oak trees without the issuance of a permit and require that preservation and removal of healthy oak trees from undeveloped property shall be addressed in the development application review process, and shall be governed by the guidelines adopted under Section 17.77.100. The Oak Tree Preservation Guidelines were adopted as required by Section 17.77.100 of the Rocklin Municipal Code, as part of the Oak Tree Preservation Ordinance.

The guidelines apply to all oak trees located wholly or partially within the city. Protected trees include any oak tree native to the Rocklin area with a diameter at breast height (DBH) of 6 inches or greater. Heritage oaks are given special protection and are defined as oaks native to the Rocklin area having a DBH of 24 inches or greater. The City of Rocklin Oak Tree Preservation Guidelines (2006) define heritage oaks for the purpose of increasing awareness that these are special trees that should be preserved and for application of a greater tree replacement requirement. Heritage oaks deserve special consideration, and their proposed removal should be scrutinized carefully.

Although the ordinance's requirements apply to all zoning designations in the city, the ordinance does not set forth specific mitigation measures for impacts of oak tree loss on property zoned B-P; C-1, 2, 3, 4; C-H; M-1, 2, or an equivalent PD zone. For those projects in which the City has required fees for oak tree removal mitigation, the fees paid are deposited into the City's Oak Tree Preservation Fund. This fund is used by the City to help purchase oak woodland preserves, such as the 21-acre addition to Johnson Springview Park, acquired in 1998, which preserved many heritage oaks and dense forested areas in the park and along Antelope Creek, and other preserve areas where new oak woodlands are being developed. By pooling together the oak tree preservation fees from various projects, the City is able to purchase and set aside for protection much larger oak woodland habitats than any one project could acquire, thus maximizing the benefit to the environment, since the larger areas of oak woodlands have more ecological value for supporting a diverse ecosystem of plants and animals. To judge the effectiveness of the application of this program, the City prepared an extensive report and management plan entitled "Planning for the Future of Rocklin's Urban Forest" prepared by Phytosphere Research. Additional information from this report and a discussion of its findings is presented in the discussion of impacts to oak woodland habitat in Impact 4.10.6 below.

4.10 BIOLOGICAL RESOURCES

4.10.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

This analysis evaluates the project's impacts on biological resources based on the standards identified in the CEQA Guidelines Appendix G. A biological resources impact is considered significant if implementation of the project would result in any of the following:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.
4. 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.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
7. Reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels.

METHODOLOGY

The impact assessment was based on the project description (Section 3.0), information described in the existing setting, and the standards of significance described above as well as a review of database search results, a literature search pertaining to biological resources within the Planning Area, and review of aerial photos of the Planning Area. The impact assessment discusses impacts to implementation of the proposed General Plan Update for the City of Rocklin.

Habitat Assessment: Habitat types within the Planning Area were defined based on data supplied by Placer County (2005) (**Figure 4.10-1**).

In addition to habitat types, the streams, creeks, and other waterways were defined based on data from the National Hydrography Dataset (USGS 2008). The National Wetlands Inventory (NWI 2004) provided additional data for wetlands found within the Planning Area.

Impacts were determined by comparing existing habitat baselines to the General Plan Land Use Diagram and determining what impact could occur through future development. However, it is acknowledged that while there are large vacant land areas, the majority of the city's land area has approved land use development entitlements (and in several cases subject to executed development agreements) that specify land use patterns and have been previously reviewed for physical environmental impacts (e.g., Clover Valley EIR State Clearinghouse No. 9322077). For example, the Northwest Rocklin and Clover Valley areas contain large areas of vacant undeveloped land, but both have approved land use entitlements for residential, commercial, office, and recreation development. Thus, the land use pattern and associated environmental impacts for the majority of the city are already anticipated, regardless of the adoption of the proposed General Plan Update.

Special-Status Species Assessment: Aerial photography was reviewed for potential habitat for the special-status species identified from the literature and database searches. A species was determined to have potential to occur in the Planning Area if its documented geographic range from the literature and database search includes the project vicinity and if suitable habitat for the species was identified within or near the Planning Area. CDFG's California Natural Diversity Database (CNDDDB) was queried for a list of special-status wildlife, botanical, and fisheries resources with a potential to occur or known to occur within and in the vicinity of the Planning Area (CDFG 2008a and b). The database search was performed for special-status species within the Rocklin and Roseville United States Geologic Survey (USGS) 7.5-minute quadrangle and the surrounding quadrangles (Clarksville, Folsom, Lincoln, Citrus Heights, Pilot Hill, Auburn, and Gold Hill). Locations of special-status species occurrences as recorded in the CNDDDB within a 1-mile radius of the Planning Area are shown in **Figure 4.10-2**.

The California Native Plant Society (CNPS) inventory was also searched for rare or endangered plants that may occur within the Planning Area (CNPS 2008). This query was performed for CNPS List 1B and List 2 special-status plants occurring in the surrounding USGS 7.5-minute quadrangles listed above. List 1B species are considered rare or endangered in California and elsewhere. List 2 species are considered rare or endangered in California but are more common elsewhere.

In addition, the United States Fish and Wildlife Service list for the USGS 7.5-minute quadrangles listed above was consulted for federally listed or candidate plant and animal species that could potentially be affected by the proposed action (USFWS 2008). An electronic request was submitted online to the USFWS for a list of federal special-status species potentially occurring in the surrounding USGS 7.5-minute quadrangles.

Appendix E presents the results of the CNDDDB, CNPS, and USFWS queries for special-status species that have the potential to occur within the Planning Area and within overlapping habitats with adjacent jurisdictions (cities).

Impacts were determined by comparing existing habitat baselines and sensitive species associations to the General Plan Update Land Use Diagram and determining effects that could occur through future development.

PROJECT IMPACTS AND MITIGATION MEASURES

Impacts to Special-Status Species

Impact 4.10.1 Implementation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans,

4.10 BIOLOGICAL RESOURCES

policies, or regulations, or by the CDFG and USFWS. Further, implementation of the proposed project could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels. This would be a **potentially significant** impact.

Direct Impacts of the Proposed General Plan Update

Suitable habitat for plant and wildlife species listed as endangered, threatened, rare, proposed, candidate, or List 1B or 2 (collectively referred to in this Draft EIR as "listed species") is found within the Planning Area, specifically along stream channels and associated riparian areas. Subsequent development under the proposed General Plan Update could result in impacts to these resources that may support special-status species. Just as direct impacts could occur to habitat in which listed species are found, indirect impacts could occur as well. Indirect impacts occur for a number of reasons, though primarily through increased human/wildlife interactions, habitat fragmentation, encroachment by exotic weeds, and area-wide changes in surface water flows due to development of previously undeveloped areas.

Increased Human/Wildlife Interactions

Recreation/Conservation areas alongside streams and associated riparian areas that incorporate trail construction and use could increase the amount and severity of indirect impacts to wildlife and habitat in the Planning Area. Additionally, development of previously undeveloped land can expose species to impacts from feral and unconfined pets.

Habitat Fragmentation and Edge Effects

State Route 65 provides a major barrier promoting habitat fragmentation between large areas of undeveloped annual grassland to the west and the portion of the Planning Area to the east. Some open space connections occur between the Planning Area and the City of Lincoln to the north. However, portions of the open space have been developed or planned for development at some future date, which could further fragment existing open space. For example, buildout in the remaining oak woodlands in the Croftwood and Secret Ravine/Sierra Bluffs community areas and oak woodlands and annual grasslands in the Mission Hills/Clover Valley community areas would create more fragmentation of these habitats. However, the Planning Area does preserve several open space corridors. These corridors occur primarily along waterways that provide a natural corridor for wildlife movement. These areas would remain unaffected by future development and continue to accommodate wildlife movement in the Planning Area.

Encroachment by Exotic Weeds

Construction activities, grading, and other ground- or vegetation-clearing disturbances associated with Planning Area buildout and usage can allow invasive non-native species to become established. As native plants are replaced by exotic species, indirect impacts to the habitat of listed species could occur such as modification or degradation of habitat.

Area-Wide Changes in Surface Water Flows

As development continues to occur on previously vacant pieces of land, surface water flows could be affected. The introduction of buildings, paving, roadways, and other impervious surfaces not only alters drainage patterns and runoff speed, but could also increase the amount

of pollutants flushed into receiving waters. Increased volumes of runoff may also be discharged into receiving surface waters, affecting flows in streams and creeks.

Table 4.10-4 conservatively quantifies the habitats that may be impacted by development of the proposed General Plan Update Land Use Diagram (including previously approved and undeveloped projects such as Clover Valley) as well as the associated listed species that may occupy these habitats. The actual acreage ultimately impacted may be less than the estimates shown in **Table 4.10-4**, because future development design proposals will be subject to the application of General Plan Update policies that address protection of biological resources, as well as possible further review on a project-by-project basis and application of already adopted mitigation measures for areas such as the Northwest Rocklin General Development Plan Area and Clover Valley. These policies and possible further review are expected to reduce the impacts estimated in **Table 4.10-4**; however, the information in **Table 4.10-4** reflects a worst-case impact scenario that is considered in this Draft EIR. As discussed previously, further environmental review may be necessary, depending on whether the potential environmental impacts of future proposed projects within the Planning Area have the potential to cause one or more direct or reasonably foreseeable indirect physical changes in the environment that have not already been adequately considered in this Draft EIR.

**TABLE 4.10-4
HABITAT TYPES AND ASSOCIATED SPECIAL-STATUS SPECIES WITHIN THE PLANNING AREA**

Habitat Type	Associated Endangered, Threatened, Rare, Proposed, and Candidate Species, and List1b and 2 Plant Species	Animal and Plant Species of Concern and Other Non-Listed Special-Status Species	Acreage in the City Limits	Acreage in the Sphere of Influence
Annual grassland	Ahart's dwarf rush big-scale balsamroot Red Bluff dwarf rush Swainson's hawk	hispid bird's-beak grasshopper sparrow western burrowing owl white-tailed kite northern harrier raptors and migratory birds	2,987	106
Blue oak/interior live oak/valley oak/oak woodland – savannah/oak – foothill pine woodland	big-scale balsamroot Red Bluff dwarf rush Swainson's hawk Bradagee's clarkia	Townsend's big-eared bat raptors and migratory birds sharp-shinned hawk	611	195
Foothill hardwood woodland	N/A	Pallid bat raptors and migratory birds sharp-shinned hawk	1,234	36
Vernal pools/seasonal wetland	Boggs Lake hedge-hyssop legenere pincushion navarretia Red Bluff dwarf rush dwarf downingia vernal pool fairy shrimp vernal pool tadpole shrimp	hispid bird's-beak western spadefoot toad California black rail	431	0.5

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Habitat Type	Associated Endangered, Threatened, Rare, Proposed, and Candidate Species, and List 1b and 2 Plant Species	Animal and Plant Species of Concern and Other Non-Listed Special-Status Species	Acreage in the City Limits	Acreage in the Sphere of Influence
Riverine/riparian	California red-legged frog Central Valley ESU steelhead Chinook salmon California red-legged frog Swainson's hawk valley elderberry longhorn beetle	northwestern pond turtle tri-colored blackbird foothill yellow-legged frog migratory birds sharp-shinned hawk	180 acres (49 stream miles)	29
Fresh emergent wetland/ stock ponds/open waters (lastrine)	Boggs Lake hedge-hyssop Sanford's arrowhead	northwestern pond turtle California black rail northern harrier raptors and migratory birds	43	2

Note: Discrepancies in acreage totals between the Planning Area and the acreages provided in Table 4.10-4 can be attributed to ruderal/urban, which is not described as a habitat type. Thus ruderal/urban habitat is not factored into the acreages identified in the table.

It should also be noted that there are approved development projects in the city that have adopted mitigation measures and conditions of approval that provide mitigation for special-status plant and wildlife impacts (special-status plant species surveys and protection measures, habitat protection and preservation measures). These projects include large-scale developments in the city such as the Northwest Rocklin General Development Plan (also known as Whitney Ranch) and Clover Valley.

Proposed General Plan Update Policies That Provide Mitigation

The following proposed General Plan policies would assist in avoiding or minimizing impacts to special-status species:

Policy OCR-5 Utilize the California Environmental Quality Act (CEQA) as the primary regulatory tool for identifying and mitigating, where feasible, impacts to open space and natural resources when reviewing proposed development projects.

Policy OCR-39 Require the protection of wetlands, vernal pools, and rare, threatened and endangered species of both plants and animals through either avoidance of these resources, or implementation of appropriate mitigation measures where avoidance is not feasible, as determined by the City of Rocklin.

Policy OCR-40 Require compliance with the State and Federal Endangered Species Acts and the Clean Water Act as conditions of development project approval.

Policy OCR-41 Recognize that onsite protection of natural resources may not always be feasible and that offsite methods, such as use of mitigation banks, may be used.

Implementation of the above policy provisions and their associated action steps would assist in mitigating potential impacts to special-status species by ensuring either avoidance or mitigation of biological resource impacts occurs. However, these efforts would not fully offset potential impacts to special-status species, and the following additional mitigation measures are identified:

Mitigation Measures

MM 4.10.1 The following shall be added as action steps to the General Plan Update Open Space, Conservation and Recreation Element:

- To offset possible losses of sensitive native wildlife and plant habitat (e.g., wetland habitat, riparian habitat, and oak woodlands) due to development projects, developers shall be responsible for mitigation. Such mitigation measures may include providing and permanently maintaining similar quality and quantity of replacement habitat, enhancing existing habitat areas, or paying fees towards an approved habitat mitigation bank. Replacement habitat may occur either on-site or at approved off-site locations.
- For those areas in which special-status species are found or are likely to occur, the City shall require feasible mitigation of impacts to those species that ensure that the activity does not contribute to the decline of the affected species such that their decline would impact the viability of the species. Mitigation shall be determined by the City after the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) are provided an opportunity to comment.

Implementation of the above policies, associated action steps, and mitigation measure **MM 4.10.1** would ensure that impacts to special-status species are mitigated by requiring replacement of habitat lost as well as maintenance of special-status species viability as a part of the CEQA documentation process. Thus, this impact would be **less than significant**.

As part of the proposed project, the City plans to amend the Redevelopment Plan to increase tax increment limitations, increase the limit on the principal amount of bonded indebtedness secured by tax increment revenue, and extend the time limit for the commencement of eminent domain proceedings to acquire non-residential property. These amendments are intended to provide the City's Redevelopment Agency with the financial and administrative resources necessary to continue assisting projects that implement its program of blight elimination within the Redevelopment Project Area. While the extended time and financial limits authorized by the Sixth Amendment may foster and encourage new development that might not occur without the Sixth Amendment, or may occur faster than had the Sixth Amendment not been adopted, all development would be consistent with the City's General Plan and with the development assumptions analyzed throughout this DEIR. Any future development resulting from amending the Redevelopment Plan would occur in areas designated for such development by the General Plan as the land uses permitted by the Redevelopment Plan are the allowable uses under the City's General Plan. Therefore, the proposed Sixth Amendment to the Redevelopment Plan would not result in direct and/or indirect impacts to special-status species beyond what is analyzed for the General Plan Update above. Any development under the Redevelopment Plan as amended would be subject to the policy provisions and mitigation described above and impacts would be **less than significant**.

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In addition to the activities identified above, the project includes a Climate Action Plan (CAP) to address climate change and identify greenhouse gas (GHG) emission reduction measures. The City of Rocklin CAP augments the objectives, goals, policies, and actions of the City of Rocklin General Plan Update related to the reduction of GHG emissions; however, the CAP is intended to be updated on a more frequent basis than the General Plan, ensuring that implementation of City efforts to reduce GHG emissions is in compliance with current regulation. The CAP determines whether implementation of the proposed General Plan Update would be consistent with the state's ability to attain the goals identified in Assembly Bill (AB) 32, identifies GHG emission reduction measures, and provides monitoring of the effectiveness of GHG emission reduction measures.

Implementation of reduction measures associated with renewable energy facilities (see CAP Goal 2 Renewable Energy and associated reduction measures 5, 6, and 7) could involve installation of wind generators and other renewable energy facilities that have the potential to impact sensitive and special-status species in unique ways compared with typical urban development. Wildlife may be potentially affected through:

- Electrocutation from transmission lines;
- Maintenance activities;
- Special-status avian and bat strikes from wind-generating facilities (turbines) and transmission lines

In some instances, turbines, transmission lines, and other facility structures could potentially interfere with behavioral activities, including migratory movements, and may provide additional perch sites for raptors, thereby increasing predatory levels on other wildlife. While these impacts can be substantial for large-scale (e.g., 100 acres and greater) wind turbine and solar facilities, such substantial impacts would not be anticipated to occur given the existing developed and entitled land use condition of the city and the resulting lack of large-scale areas for alternative energy uses. Implementation of the above mitigation measure and policies would address these impacts and result in a **less than significant** impact.

Impacts to Species of Concern and Other Non-Listed Special-Status Species

Impact 4.10.2 Implementation of the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFG and USFWS. Further, implementation of the proposed project could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels. This would be a **potentially significant** impact.

Direct Impacts of the Proposed General Plan

Suitable habitat exists in the Planning Area for unlisted but nonetheless special-status species (**Appendix E**). These species are designated as a species of concern by the CDFG, listed as fully protected in the Fish and Game Code of California (Section 3511, 4700, 5050, 5515). For a listing of special-status, unlisted species within the Planning Area, see Tables A-1 and A-2 in **Appendix E**.

Direct impacts to these species would occur for the same reasons and in the same manner as direct impacts to listed species as identified and discussed in Impact 4.10.1 above. See Impact

4.10.1, as well as **Table 4.10-4**, for information on the acreages of suitable habitat that would be affected by implementation of the proposed General Plan.

Indirect Impacts of the General Plan

Suitable habitat exists within the Planning Area for unlisted, special-status species identified (along with other listed special-status species) in Tables A-1 and A-2 in **Appendix E**. The previously documented location of these species is shown in **Figure 4.10-2**. Indirect impacts to these species would occur for similar reasons as those identified in Impact 4.10.1.

Proposed General Plan Update Policies That Provide Mitigation

The proposed General Plan policies listed under Impact 4.10.1 would assist in avoiding or minimizing impacts to species of concern and other non-listed special-status species.

Mitigation Measures

Implementation of the policies listed under Impact 4.10.1, their associated action steps, and mitigation measure **MM 4.10.1** would ensure that impacts to special-status species are mitigated by requiring replacement of habitat lost as well as maintenance of special-status species viability. Thus, this impact would be **less than significant**.

In addition, as discussed in Section 3.0, Project Description, and under Impact 4.10.1 above, the project includes the Sixth Amendment to the Redevelopment Plan, which would be consistent with the proposed General Plan Update and with the development assumptions analyzed throughout this DEIR. As this project component would not result in land use activities or population growth beyond what is identified in the General Plan Update, it would not result in impacts to species of concern and other non-listed special status species beyond what is analyzed for the General Plan Update above. In addition, its impacts would be addressed through implementation of the General Plan Update policies and associated action steps as well mitigation measure **MM 4.10.1**. Impacts would be **less than significant**.

In addition to the activities identified above, the project includes a Climate Action Plan (CAP) to address climate change and identify greenhouse gas (GHG) emission reduction measures. The City of Rocklin CAP augments the objectives, goals, policies, and actions of the City of Rocklin General Plan Update related to the reduction of GHG emissions; however, the CAP is intended to be updated on a more frequent basis than the General Plan, ensuring that implementation of City efforts to reduce GHG emissions is in compliance with current regulation. The CAP determines whether implementation of the proposed General Plan Update would be consistent with the state's ability to attain the goals identified in AB 32, identifies GHG emission reduction measures, and provides monitoring of the effectiveness of GHG emission reduction measures.

Implementation of reduction measures associated with renewable energy facilities (see CAP Goal 2 Renewable Energy and associated reduction measures 5, 6, and 7) could involve installation of wind generators and other renewable energy facilities that have the potential to impact species of concern and other non-listed special-status species in unique ways compared with typical urban development. Wildlife may be potentially affected through:

- Electrocutation from transmission lines;
- Maintenance activities;

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- Special-status avian and bat strikes and barotraumas (in bats) from wind-generating facilities (turbines) and transmission lines

In some instances, turbines, transmission lines, and other facility structures could potentially interfere with behavioral activities, including migratory movements, and may provide additional perch sites for raptors, thereby increasing predatory levels on other wildlife. While these impacts can be substantial for large-scale (e.g., 100 acres and greater) wind turbine and solar facilities, such substantial impacts would not be anticipated to occur given the existing developed and entitled land use condition of the city and the resulting lack of large-scale areas for alternative energy uses. Implementation of the above mitigation measure and policies would address these impacts and result in a **less than significant** impact.

Impacts to Sensitive Biological Communities

Impact 4.10.3 Implementation of the proposed project could have a substantial adverse impact on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS due to disturbance, degradation, and removal of sensitive biological communities. Implementation of the proposed project could also have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means. This would be a **significant** impact.

Implementation of the General Plan Update and its associated project components would result in some disturbance, degradation, and removal of riparian and wetland habitats. Riparian habitat, most notably, supports a high diversity of wildlife species and provides shade for streams and wetlands, maintaining stream temperatures, and reducing stream evaporation. The benefits of riparian corridor buffers increase if they are adjacent to larger tracts of conserved land. Riparian habitat is considered to be a sensitive natural community under CEQA. Therefore, disturbance and loss of riparian habitat is considered a potentially significant impact

Proposed General Plan Update Policies That Provide Mitigation

The following proposed General Plan policies would assist in avoiding or minimizing impacts to sensitive biological communities:

Policy OCR-5 Utilize the California Environmental Quality Act (CEQA) as the primary regulatory tool for identifying and mitigating, where feasible, impacts to open space and natural resources when reviewing proposed development projects.

Policy OCR-39 Require the protection of wetlands, vernal pools, and rare, threatened and endangered species of both plants and animals through either avoidance of these resources, or implementation of appropriate mitigation measures where avoidance is not feasible, as determined by the City of Rocklin.

Policy OCR-40 Require compliance with the State and Federal Endangered Species Acts and the Clean Water Act as conditions of development project approval.

Policy OCR-41 Recognize that onsite protection of natural resources may not always be

feasible and that offsite methods, such as use of mitigation banks, may be used.

Mitigation Measures

While implementation of the above policies, their associated action steps, and mitigation measure **MM 4.10.1** would likely mitigate the loss of sensitive habitat areas in the city, complete offset of the habitat loss cannot be ensured in every circumstance. The City specifically notes that balancing the needs of the city will result in some modification of existing open space and natural resources (see Policy OCR-2). Significant and unavoidable loss of sensitive habitat areas and resources from planned growth of the city has already been identified in the 1990 City of Rocklin General Plan EIR. Thus, this impact is considered **significant and unavoidable**.

In addition, as discussed in Section 3.0, Project Description, and under Impact 4.10.1 above, the project includes the Sixth Amendment to the Redevelopment Plan, which would be consistent with the proposed General Plan Update and with the development assumptions analyzed throughout this DEIR. As this project component would not result in land use activities or population growth beyond what is identified in the General Plan Update, it would not result in impacts to sensitive biological communities beyond what is analyzed for the General Plan Update above. In addition, its impacts would be addressed through implementation of the General Plan Update policies and associated action steps as well mitigation measure **MM 4.10.1**. Impacts would be **less than significant**.

In addition to the activities identified above, the project includes a Climate Action Plan (CAP) to address climate change and identify greenhouse gas (GHG) emission reduction measures. The City of Rocklin CAP augments the objectives, goals, policies, and actions of the City of Rocklin General Plan Update related to the reduction of GHG emissions; however, the CAP is intended to be updated on a more frequent basis than the General Plan, ensuring that implementation of City efforts to reduce GHG emissions is in compliance with current regulation. The CAP determines whether implementation of the proposed General Plan Update would be consistent with the state's ability to attain the goals identified in AB 32, identifies GHG emission reduction measures, and provides monitoring of the effectiveness of GHG emission reduction measures.

Implementation of reduction measures associated with renewable energy facilities (see CAP Goal 2 Renewable Energy and associated reduction measures 5, 6, and 7) could involve installation of wind generators and other renewable energy facilities that have the potential to impact sensitive biological communities in unique ways compared with typical urban development. Wildlife may be potentially affected through:

- Electrocutation from transmission lines;
- Maintenance activities;
- Special-status avian and bat strikes and barotraumas (in bats) from wind-generating facilities (turbines) and transmission lines

In some instances, turbines, transmission lines, and other facility structures could potentially interfere with behavioral activities, including migratory movements, and may provide additional perch sites for raptors, thereby increasing predatory levels on other wildlife. While these impacts can be substantial for large-scale (e.g., 100 acres and greater) wind turbine and solar facilities, such substantial impacts would not be anticipated to occur given the existing developed and entitled land use condition of the city and the resulting lack of large-scale areas for alternative

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energy uses. Implementation of the above mitigation measure and policies would address these impacts and result in a **less than significant** impact.

Impacts to Migratory Corridors

Impact 4.10.4 Implementation of the proposed project could interfere substantially with the movement of native resident or migratory fish or wildlife species. However, remaining development under the proposed project would not substantially convert major remaining undisturbed open space and riparian areas that could serve as migratory corridors, and the proposed General Plan Update Land Use Diagram provides several movement corridors designated as open space along waterways in the city that connect with land areas outside of Rocklin. Therefore, this would be a **less than significant** impact.

The major areas within the Planning Area that contain remaining natural lands include the ridgelines, annual grasslands, oak woodlands, and riparian/riverine habitat which provide adequate cover and vegetation to be used as a migratory corridor for common and special-status fish and wildlife species. Open space provides an opportunity for dispersal and migration of wildlife species. The city is largely built out and remaining development potential would not substantially convert major remaining undisturbed designated open space areas and riparian areas that could serve as migratory corridors. In addition, the proposed General Plan Update Land Use Diagram provides several movement corridors designated as open space along waterways in the city that connect with land areas outside of Rocklin. Thus, this impact is considered **less than significant**.

In addition, as discussed in Section 3.0, Project Description, and under Impact 4.10.1 above, the project includes the Sixth Amendment to the Redevelopment Plan, which would be consistent with the proposed General Plan Update and with the development assumptions analyzed throughout this DEIR. As this project component would not result in land use activities or population growth beyond what is identified in the General Plan Update, it would not result in impacts to migratory corridors beyond what is analyzed for the General Plan Update above. In addition, its impacts would be addressed through implementation of the General Plan Update policies and associated action steps as well mitigation measure **MM 4.10.1**. Impacts would be **less than significant**.

In addition to the activities identified above, the project includes a Climate Action Plan (CAP) to address climate change and identify greenhouse gas (GHG) emission reduction measures. The City of Rocklin CAP augments the objectives, goals, policies, and actions of the City of Rocklin General Plan Update related to the reduction of GHG emissions; however, the CAP is intended to be updated on a more frequent basis than the General Plan, ensuring that implementation of City efforts to reduce GHG emissions is in compliance with current regulation. The CAP determines whether implementation of the proposed General Plan Update would be consistent with the state's ability to attain the goals identified in AB 32, identifies GHG emission reduction measures, and provides monitoring of the effectiveness of GHG emission reduction measures.

Implementation of reduction measures associated with renewable energy facilities (see CAP Goal 2 Renewable Energy and associated reduction measures 5, 6, and 7) could involve installation of wind generators and other renewable energy facilities that have the potential to impact migratory corridors in unique ways compared with typical urban development. Wildlife may be potentially affected through:

- Electrocutation from transmission lines;

- Maintenance activities;
- Special-status avian and bat strikes and barotraumas (in bats) from wind-generating facilities (turbines) and transmission lines

In some instances, turbines, transmission lines, and other facility structures could potentially interfere with behavioral activities, including migratory movements, and may provide additional perch sites for raptors, thereby increasing predatory levels on other wildlife. While these impacts can be substantial for large-scale (e.g., 100 acres and greater) wind turbine and solar facilities, such substantial impacts would not be anticipated to occur given the existing developed and entitled land use condition of the city and the resulting lack of large-scale areas for alternative energy uses. Implementation of the above mitigation measure and policies would address these impacts and result in a **less than significant** impact.

Mitigation Measures

None required.

Loss of Native Oak and Heritage Trees

Impact 4.10.5 Implementation of the proposed project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance as a result of the removal of native oak trees, including heritage trees and other mature, healthy oak trees. Implementation of the proposed General Plan Update and the associated tree removal could also have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG and USFWS. This impact can be partially mitigated through the preservation of trees proposed for removal, the relocation or replanting of removed trees, and contributions to the City's Oak Tree Preservation Fund, but would be **significant and unavoidable** because the removed trees would not be immediately replaced with mature oak trees.

Implementation of the General Plan Update and the associated subsequent development would result in the removal of native oak trees, including heritage trees and other mature, healthy oak trees.

The impacts of development under the existing General Plan were analyzed in the Environmental Impact Report prepared for the 1991 City of Rocklin General Plan. The City's General Plan EIR addressed impacts to biological resources in the context of both direct and cumulative impacts. Recognizing the significant and unavoidable cumulative impacts resulting from building out a city where no city had previously existed, as one would expect, a significant and unavoidable cumulative impact to biological resources was found. The City did recognize the need to preserve trees and areas of significant vegetation and at that time adopted Open Space, Conservation and Recreation policy number 4 "to encourage the protection of oak trees, including heritage oaks, and other significant vegetation from destruction." This General Plan policy has been incorporated consistently into the planning and development of the city since its adoption. The policy is implemented in two primary ways, through the City of Rocklin Oak Tree Preservation Ordinance, codified into Rocklin Municipal Code Chapter 17.77, and through the planning review and entitlement process requiring significant landscaping, tree planting, oak tree preservation and restoration, and open space preservation.

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As noted in the prior regulatory framework discussion of the City of Rocklin Oak Tree Preservation Ordinance, the ordinance does not set forth specific mitigation measures for impacts of oak tree loss on property zoned B-P; C-1, 2, 3, 4; C-H; M-1, 2, or an equivalent PD zone. In these instances, the City has developed and applied mitigation measures for oak tree removal through the planning review and entitlement process. When devising the mitigation measures, the City has considered such factors as the number, age, and health of oak trees proposed for removal, the habitat value of the trees individually and as a part of a larger oak tree woodland, and whether the trees have been previously disturbed or are surrounded by development so that their environmental value or ecological habitat value is reduced.

When evaluating a development proposal that contemplates the removal of healthy, mature native oak trees, the City first encourages the development to preserve and protect oak trees which can be incorporated into the project design, to the maximum extent feasible. The City then encourages the development to evaluate, to the extent feasible, the ability to transplant oak trees with a high probability of survival to suitable areas on the project site, including proposed landscaped areas, and to incorporate oak tree species as new plantings within the landscaped areas. As a final step, the development is required to further mitigate the loss of oak trees through land dedication, replacement plantings, or payment of fees into the City's Oak Tree Preservation Fund.

Proposed General Plan Update Policies That Provide Mitigation

The following proposed General Plan policies would assist in avoiding or minimizing impacts associated with loss of native oak and heritage trees:

Policy OCR-5 Utilize the California Environmental Quality Act (CEQA) as the primary regulatory tool for identifying and mitigating, where feasible, impacts to open space and natural resources when reviewing proposed development projects.

Policy OCR-41 Recognize that onsite protection of natural resources may not always be feasible and that offsite methods, such as use of mitigation banks, may be used.

Policy OCR-43 Mitigate for removal of oak trees and impacts to oak woodlands in accordance with the City of Rocklin's Oak Tree Preservation Ordinance, or for projects located in zones not directly addressed by the Oak Tree Preservation Ordinance mitigation measures, on a project-by-project basis through the planning review and entitlement process.

Mitigation Measures

While application of the above policy provisions would assist in mitigating potential impacts resulting from project implementation and the associated removal of native oak trees, the loss of a substantial number of mature, healthy oak trees, including some heritage trees, would still result. Despite the implementation of the policy provisions and procedures noted above, this impact would be considered **significant and unavoidable** because the removed trees would not be immediately replaced with mature oak trees.

In addition, as discussed in Section 3.0, Project Description, and under Impact 4.10.1 above, the project includes the Sixth Amendment to the Redevelopment Plan and the CAP, both of which would be consistent with the proposed General Plan Update and with the development

assumptions analyzed throughout this DEIR. As these project components would not result in land use activities or population growth beyond what is identified in the General Plan Update, they would not result in impacts associated with loss of native oak and heritage trees beyond what is analyzed for the General Plan Update above.

Loss of Oak Woodland Habitat

Impact 4.10.6 Implementation of the proposed project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance as a result of the removal of areas of oak woodland habitat. Implementation of the proposed project and the associated oak woodland habitat removal could also have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS. This impact can be partially mitigated through the preservation, creation, and restoration of the city's urban forest and oak woodlands that would take place over time as part of the City's mitigation strategy, but would be **significant and unavoidable** because the mitigation strategy allows for the replanting of trees (either directly or through payments to the City) that will take many years to become as mature as many of the oak trees that will be removed, and the mitigation strategy may not necessarily result in the re-creation of areas of oak woodland habitat.

Oak trees and associated oak woodlands support a diverse community of insects and wildlife in both their overstory (branches and leaves) and in their understory (grasses, brush, and limbs on the ground under the trees). Foothill woodlands have been reduced in California to such an extent that the loss of any oak trees must be evaluated as the loss of habitat for many native species.

The extent of an impact on oak woodland habitat relates to its ecological habitat value and the characteristics of the particular oak woodland area. Sites that are isolated from other oak woodland areas by bordering streets, highways, and urban development do not provide the same habitats for wildlife as other undisturbed woodland habitats that are part of larger forested areas.

Importantly, nearly all oak woodlands in the city are second or third growth, and in many cases the areas were interspersed with prior agricultural uses or other land use factors which can diminish habitat ecological value. Another consideration is the availability of natural water supply on a site such as a creek or stream. Wildlife species require three basic elements for survival: food, water, and habitat cover. Without a substantial water source, a site has less ecological value because one of the three basic elements for wildlife survival is nonexistent.

Impacts from loss of trees are generally intertwined with the potential for loss of oak woodland habitat. As discussed above under Impact 4.10.5 above, the impacts of development under the existing General Plan were analyzed in the Environmental Impact Report prepared for the 1991 City of Rocklin General Plan. The City's General Plan EIR addressed impacts to biological resources in both a direct impacts and cumulative impacts context. Recognizing the significant and unavoidable cumulative impacts resulting from building out a city where no city had previously existed, as one would expect, a significant and unavoidable cumulative impact to biological resources was found.

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The City recognized the need to preserve trees and areas of significant vegetation and at that time adopted Open Space, Conservation and Recreation policy number 4 "to encourage the protection of oak trees, including heritage oaks, and other significant vegetation from destruction." This General Plan policy has been incorporated consistently into the planning and development of the city since its adoption. The policy is implemented in two primary ways, the City of Rocklin Oak Tree Preservation Ordinance, codified into Rocklin Municipal Code Chapter 17.77, and through the planning review and entitlement process requiring significant landscaping, tree planting, oak tree preservation and restoration, and open space preservation.

To judge the effectiveness of the application of this policy, the City prepared an extensive report and management plan entitled "Planning for the Future of Rocklin's Urban Forest" prepared by Phytosphere Research. This report was presented to and adopted by the Rocklin City Council on October 24, 2006. Section 3.1 of the report presents overall changes in tree canopy levels within the city from 1952 to 2003 and sets forth the following findings:

1. Canopy cover in the currently developed portion of Rocklin has increased from an average of 11.3 percent in 1952 to 18.5 percent in 2003.
2. Gains in canopy cover over the past 50 years are due to both canopy growth of conserved native oaks and planting of trees in new developments.
3. Conserved oak canopy accounts for a high percentage of the total tree cover in many parts of Rocklin
4. Tree canopy cover in residential areas is typically much greater than canopy cover at other types of developments.
5. The overall distribution of oak woodlands within Rocklin's current boundaries has not changed substantially since the 1930s.

Section 3.2 of the report, "City-owned oak woodlands," goes on to present the following information:

The City of Rocklin owns lands with substantial stands of native woodlands in at least 11 locations throughout the city. Many of these woodland areas are adjacent to traditional multi-use City parks and are used recreationally to varying degrees. These woodland areas provide City residents a nearby connection to the natural environment and Rocklin's natural history. In addition, these areas provide wildlife habitat, protect slopes and watercourses from erosion, moderate storm water runoff, provide shade and evaporative cooling, and contribute to Rocklin's aesthetics and community identity. The woodlands are also important as a source of locally adapted native tree genetic stock.

Mitigation Measures

While implementation of the policy provisions listed under Impact 4.10.5 above would assist in mitigating potential impacts resulting from the loss of oak woodlands, this impact would be considered **significant and unavoidable** because the mitigation strategy, in part, allows for the replanting of trees (either directly or through payments to the City) that will take many years to become as mature as many of the oak trees that will be removed.

With the implementation of the above policy provisions and associated action items and mitigation measures, the mature, healthy oak trees removed to facilitate development on a project site will be replanted, relocated, and/or replaced over time, but not necessarily as a part of an overall oak woodland habitat area. The City's Oak Tree Preservation Ordinance allows for dedication of land as a means for mitigating oak tree removal, which would potentially allow for the preservation of some oak woodland habitat areas. However, it has been the City's experience that this mitigation option is rarely used. While some areas of oak woodland habitat in the city have been retained and it is anticipated that additional development under the General Plan will also result in the retention of some areas of oak woodland habitat, it is recognized that continued development in the city will still result in the loss of areas of oak woodland habitat. For these reasons, this impact would be considered **significant and unavoidable**.

In addition, as discussed in Section 3.0, Project Description, and under Impact 4.10.1 above, the project includes the Sixth Amendment to the Redevelopment Plan and the CAP, both of which would be consistent with the proposed General Plan Update and with the development assumptions analyzed throughout this DEIR. As these project components would not result in land use activities or population growth beyond what is identified in the General Plan Update, they would not result in loss of oak woodland habitat beyond what is analyzed for the General Plan Update above.

4.10.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The City of Rocklin and the surrounding area of western Placer County must be considered for the purpose of evaluating land use conversion issues associated with biological resources on a cumulative level. In particular, this cumulative setting condition includes proposed and approved projects, planned development under the proposed General Plan Update, and planned and proposed land uses in the region, as well as consideration of development patterns on communities in western Placer County, the Central Valley, and the Sierra foothills.

Continued development in the city and in the region could directly and indirectly affect biological resources. The development of natural areas could cause loss of wildlife habitats or plant communities.

The implementation of the proposed General Plan Update would contribute incrementally to the cumulative loss of native plant communities, wildlife habitat values, special-status species and their potential habitat, and wetland resources in the western Placer County region. Growth and urbanization of the City of Rocklin and other cities and communities in western Placer County cumulatively contribute to the loss of these resources. As demonstrated in the Existing Setting subsection, the proposed project area supports a variety of biological habitats and species.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Biological Resources

Impact 4.10.7 The proposed project, in combination with other reasonably foreseeable projects, could have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFG

4.10 BIOLOGICAL RESOURCES

or USFWS. The proposed project, in combination with other reasonably foreseeable projects, could also have a substantial adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS. The proposed project, in combination with other reasonably foreseeable projects, could also have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means. The proposed project, in combination with other reasonably foreseeable projects, could also interfere substantially with the movement of 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. Further, the proposed project, in combination with other reasonably foreseeable projects, could reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels. Therefore, this impact is considered **cumulatively considerable**.

The proposed General Plan Update and its associated project components, along with other development in the region, would result in adverse impacts on:

- Special-status species;
- Biologically sensitive habitat;
- Native oak trees, heritage trees and oak woodland; and
- Jurisdictional features (wetlands and waters of the U.S.).

Proposed General Plan Update Policies That Provide Mitigation

The proposed General Plan Update policies listed under Impacts 4.10.1, 4.10.3, and 4.10.5 would assist in avoiding or minimizing cumulative biological resource impacts.

As previously discussed, the Sixth Amendment to the Redevelopment Plan would not result in impacts to special-status species, impacts to species of special concern and other non-listed special-status species, impacts to sensitive biological communities, impacts to migratory corridors, loss of native oak and heritage trees, and loss of oak woodland habitat beyond what is analyzed for the General Plan Update above. However, implementation of the CAP could add to the potential for impacts to sensitive and special-status species, to species of concern and other non-listed special-status species, to sensitive biological communities, and to migratory corridors. While these impacts can be substantial for large-scale (e.g., 100 acres and greater) wind turbine and solar facilities, such substantial impacts would not be anticipated to occur given the existing developed and entitled land use condition of the city and the resulting lack of large-scale areas for alternative energy uses.

Mitigation Measures

Implementation of the policies listed under Impacts 4.10.1, 4.10.3, and 4.10.5, their associated action steps, and mitigation measure **MM 4.10.1** would ensure that impacts to special-status species are mitigated by requiring replacement of habitat lost as well as maintenance of special-status species viability. However, complete offset of the habitat loss in the city cannot be ensured in every circumstance. The City specifically notes that balancing the needs of the city may result in some modification of existing open space and natural resources (see Policy

OCR-2). Significant and unavoidable loss of sensitive habitat areas and resources from planned growth of the city has already been identified in the 1990 City of Rocklin General Plan EIR. Thus, the city's contribution to the loss of sensitive habitat is considered **cumulatively considerable** and a **significant and unavoidable** impact.

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