4.12 BIOLOGICAL RESOURCES

This section describes biological resources present on, or with potential to occur on the project site, including biological communities, common plant and wildlife species, and special-status species. It also includes an overview of the federal, State and local laws and regulations pertaining to the protection of biological resources in the City of Rocklin. Potential impacts on biological resources resulting from implementation of the proposed project are evaluated and mitigation measures are proposed, where appropriate.

The biological resources information presented in this section is based on a review of available background reports, previous studies conducted on the project site, biological resource databases, aerial photography interpretation, and a reconnaissance level site survey conducted by EDAW biologists on September 29, 2006. Specific biological resource background reports reviewed in preparing this section are identified in Table 4.12-1.

Table 4.12-1
Biological Resource Background Reports

Title	Author	Date
Croftwood Subdivision Final EIR	The Planning Center	3/1/1991
Sierra College Boulevard/Interstate 80 Interchange Draft and Final EIR	LSA Associates	Aug. & Nov/ 2003
Environmental Site Assessment, Rocklin 105*	Wallace-Kuhl Associates	1/5/2005
Corps of Engineers verification letter, Rocklin 105	ACOE, Tom Cavanaugh	2/19/2004
Tree Survey, Rocklin 105	Foothill Associates	3/12/2002
Arborist Report, Rocklin Crossings	Foothill Associates	8/3/07
Updated Arborist Report, Rocklin Crossings	Foothill Associates	9/6/07
Pre-Construction Notification for Authorization Under Nationwide Permit (NWP) No. 39 for Rocklin Crossings Commercial Development (Placer County, California)	ECORP Consulting, Inc.	7/22/2005
Report of Findings – Branchiopods, Rocklin 105	ECORP Consulting, Inc.	9/12/2005
Dry Season Report of Findings – Branchiopods, Rocklin 105	ECORP Consulting, Inc.	12/18/2005
Wetland Delineation Report, Rocklin 105	ECORP Consulting, Inc.	4/15/2003
Elderberry Survey, Rocklin Crossings	ECORP Consulting, Inc.	2/17/2006
Wetland Assessment, Special Species Assessment/Elderberry Survey, Rocklin 105	ECORP Consulting, Inc.	3/8/2002
Special Status Plant Survey, Rocklin Crossings	ECORP Consulting, Inc.	11/18/2005
Rocklin Crossings, Placer County, California - Special-Status Plant Survey Addendum	ECORP Consulting, Inc.	7/11/07
Wet / Dry Report of Findings – Branchiopods, Rocklin Crossings	ECORP Consulting, Inc.	4/3/2006

* Rocklin 105 refers to the Rocklin Crossings property as it was originally configured plus the adjacent proposed Rocklin 60 residential development

In accordance with CEQA Guidelines Section 15125(a), the environmental baseline, as analyzed in this EIR, is the environmental setting as it existed at the time the Notice of Preparation was published, November 16, 2006. Therefore, the following discussion describes the site's biological conditions as they were on November 16, 2006. However, it should be noted that the Interstate 80/Sierra College Boulevard Interchange Improvement Project was initiated following release of the Notice of Preparation and extensive grading and excavation work has been initiated along the western and northern portions of the project site to accommodate the interchange project's lane

construction and soil borrow requirements. These changes have altered the biological character of the project site's northern and western boundaries by removing the existing vegetation.

4.12.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The project site is located in the Sierra Nevada foothills at the southeast corner of Interstate 80 and Sierra College Boulevard in the City of Rocklin. The project site is bordered by Interstate 80 to the north and Sierra College Boulevard to the west. Oak woodlands and Secret Ravine Creek lie to the east and south. Rural residential uses are located to the west, southwest and east of the site.

LOCAL SETTING

The project site is characterized by plant communities typical of the Sierra Nevada foothills. The property is primarily dominated by non-native annual grassland, interspersed with a limited amount of oak woodland. Several wetland features are also present on the site. Numerous rock outcrops are found throughout the project site. The site's topography is gently rolling terrain with a slight rise in the center of the property. Surface elevations of the project site range from about 320 to 360 feet above mean sea level.

Construction of the Croftwood Subdivision access road was underway at the time of the reconnaissance visit by EDAW biologists. This access road extends east from Sierra College Boulevard to the approved Croftwood Subdivision project, which is located to the southeast of the project site and east of Secret Ravine Creek. The access road parallels the property's southern border, extends east past the southern boundary of the proposed Rocklin 60 residential property, and continues east across Secret Ravine Creek to the Croftwood Subdivision property.

Project Site Habitat types

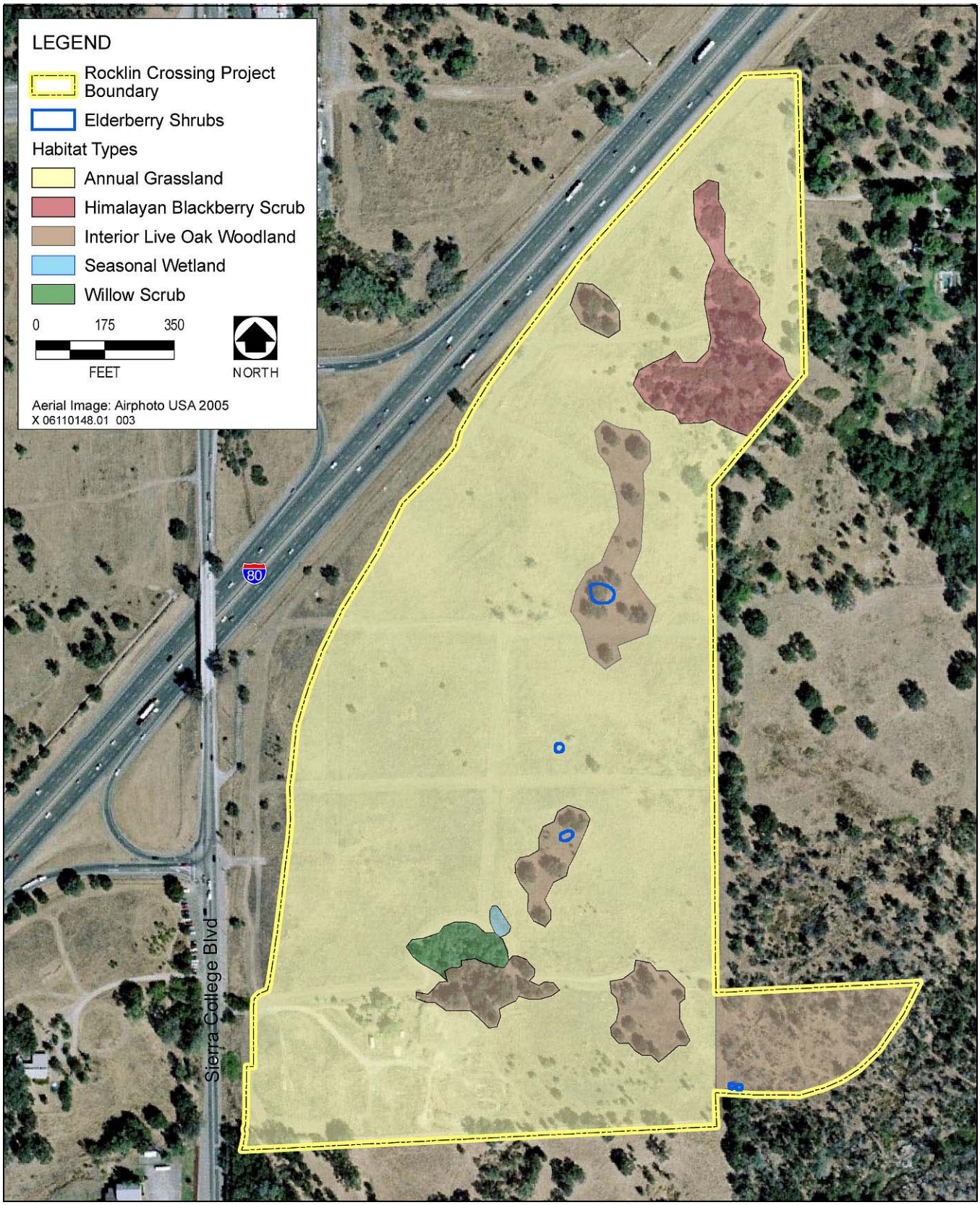
Habitat types present on the project site are briefly described below, and the location and extent of each habitat type is identified in Exhibit 4.12-1.

Annual Grassland

Annual grassland occupies the majority of the project site. This herbaceous plant community is characterized by a dense, tall cover of non-native annual grasses such as soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), wild oats (*Avena fatua*), medusahead (*Taeniatherum caput-medusae*), and non-native forbs such as rose clover (*Trifolium hirtum*), rush skeletonweed (*Chondrilla juncea*), and yellow star-thistle (*Centaurea solstitialis*). Native forbs observed in the annual grassland during late summer reconnaissance surveys include common madia (*Madia elegans*), western ragweed (*Ambrosia psilostachya*), and fiddleneck (*Amsinckia menziesii*). Scattered interior live oak (*Quercus wislizeni*) trees can be found throughout the annual grassland. A remnant persimmon orchard and ornamental landscaping associated with a former residence is located in the southwest quarter of the project site.

Interior Live Oak Woodland

Portions of the property are characterized by remnants of interior live oak woodland. Clusters of live oak trees are associated with the scattered rock outcrops found throughout the property. The oaks in these clusters tend to be large mature individuals. The understory of these woodland "islands" is open with occasional poison oak (*Toxicodendron diversilobum)* and elderberry (*Sambucus mexicana*). Herbaceous cover in the understory is similar to the surrounding annual grassland.



Location and Extent of Habitat Types on the Project Site **Exhibit 4.12-1**

The densest oak woodlands are located within the proposed detention basin footprint. This area consists of an open blue and interior live oak woodland with a heavy cover of shrubs, including coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), hoary coffeeberry (*Rhamnus tomentella*), and poison oak (*Toxicodendron diversilobum*).

Himalayan Blackberry Scrub

A dense thicket of Himalayan blackberry (*Rubus discolor*) scrub is located near the northern end of the project site. The boundaries of this habitat type are clearly defined by dense cover of three- to four-foot tall Himalayan blackberry. Occasional emergent valley oak (*Quercus lobata*) trees and willow (*Salix* spp.) shrubs are interspersed in this habitat type. The stand of Himalayan blackberry scrub is situated in a shallow topographic depression that drains to the east and is connected hydrologically to seasonal and riparian wetlands located on the adjacent property.

Willow Scrub

A small stand of willow scrub is present in the southern central portion of the project site. This habitat type occurs in a shallow depression and is dominated by a dense cover of 6- to 12-foot tall narrowleaf willows (*Salix exigua*). Himalayan blackberry is present in the understory of the willow scrub and occasional young valley oaks are present on the perimeter of this habitat type. The source of moisture supporting the willow scrub in this location is a groundwater seep.

Seasonal Wetland

Jurisdictional waters of the United States on the project site include two seasonal wetlands (0.014 acre), a seasonal wetland swale (0.087 acre), and two seeps (0.325 acre). The wetlands receive direct rainfall and sheet flow from the surrounding uplands to become inundated during the wet season. The seeps result from shallow underground water "day lighting" at the surface. The wetlands are dry during typical spring and summer periods. The vegetation composition of the seasonal wetlands includes Italian ryegrass (*Lolium multiflorum*), Mediterranean barley (*Hordeum marinum*), vulpia (*Vulpia bromoides*), and curly dock (*Rumex crispus*) (ECORP 2005c).

The seasonal wetland swale is located within the dense thicket of Himalayan blackberry scrub near the northern end of the project site. The larger of the two seeps is located within the small stand of willow scrub in the southern central portion of the project site. The two seasonal wetlands are located adjacent to the seep to the east and south, respectively. The smaller of the two seeps is located adjacent to the site's eastern boundary in the northern portion of the property.

Sensitive Off-Site Habitat types

A small seasonal wetland is located directly north of the detention basin footprint and an intermittent drainage is located directly to the east. Also, elderberry shrubs are located directly to the south and north of the detention basin footprint. The seasonal wetland swale within the northern portion of the site extends southeast onto the adjacent property. Relatively dense oak woodlands are scattered along the length of the project's eastern and southern boundaries.

Offsite water line improvements necessary to provide adequate water pressure to the project site would be installed within the paved portions of the roadway rights-of-way.

Wildlife

Wildlife occurring on the project site is typical of annual grasslands and oak woodlands in the Sierra Nevada Foothills. Wildlife species observed or detected within the annual grassland and oak woodland during the

reconnaissance level survey conducted by EDAW biologists include coyote (*Canis latrans*), raccoon (*Procyon lotor*), western grey squirrel (*Sciurus griseus*), deer mouse (*Peromyscus maniculatus*), Botta's pocket gopher (*Thomomys bottae*), black-tailed jackrabbit (*Lepus californicus*), and mule deer (*Odocoileus hemionus*). Avian species observed or detected include Canada goose (*Branta canadensis*), turkey vulture (*Cathartes aura*), wild turkey (*Meleagris gallopavo*), acorn woodpecker (*Melanerpes formicivorus*), black phoebe (*Sayornis nigricans*), Western kingbird (*Tyrannus verticalis*), Western scrub-jay (*Aphelocoma californica*), and Western bluebird (*Sialia mexicana*).

Many Pacific tree frogs (*Hyla regilla*) were observed within the irrigation box at the northeastern corner of the property. Western fence lizards (*Sceloporus occidentalis*) were common throughout the annual grasslands and around rock outcroppings within the oak woodland. Other common reptile species that are expected to occur include Gilbert's skink (*Eumeces gilberti*), Western rattlesnake (*Crotalus viridis*), and striped racer (*Masticophis lateralis*).

The abundance and diversity of the common wildlife species observed and expected to occur within the project site are reflective of the high value of the habitats on-site to wildlife in the region. The proximity of the site to Secret Ravine Creek increases the value of the site to regional wildlife populations, as it supports additional species that may not occur in similar habitats that lack a perennial water source.

Special-status Species

Special-status species are defined as plants and animals that are legally protected or that are otherwise considered sensitive by federal, State, or local resource conservation agencies and organizations. For the purposes of this EIR, special-status species are those that fall into one or more of the following categories:

- species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA);
- species considered as candidates for listing as threatened or endangered under ESA or CESA;
- species identified by California Department of Fish and Game (DFG) as Species of Special Concern;
- animals fully protected in California under the California Fish and Game Code;
- plants on California Native Plant Society (CNPS) List 1B (plants considered by CNPS to be rare, threatened, or endangered in California and elsewhere) or List 2 (plants considered rare, threatened, or endangered in California but more common elsewhere).

Taxa considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California." The CNPS *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS Inventory) (CNPS 2006) includes five lists for categorizing plant species of concern, which are summarized as follows:

- List 1A—Plants presumed to be extinct in California
- List 1B—Plants that are rare, threatened, or endangered in California and elsewhere
- List 2—Plants that are rare, threatened, or endangered in California but more common elsewhere
- List 3—Plants about which more information is needed (a review list)
- List 4—Plants of limited distribution (a watch list)

Plant inventories prepared by 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 State 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 (CNPS 2006) are considered "special plants" by DFG. The term "special plants" is a broad term used by DFG to refer to all of the plant taxa inventoried by the California Natural Diversity Database (CNDDB), 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 State 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 state 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 DFG 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.

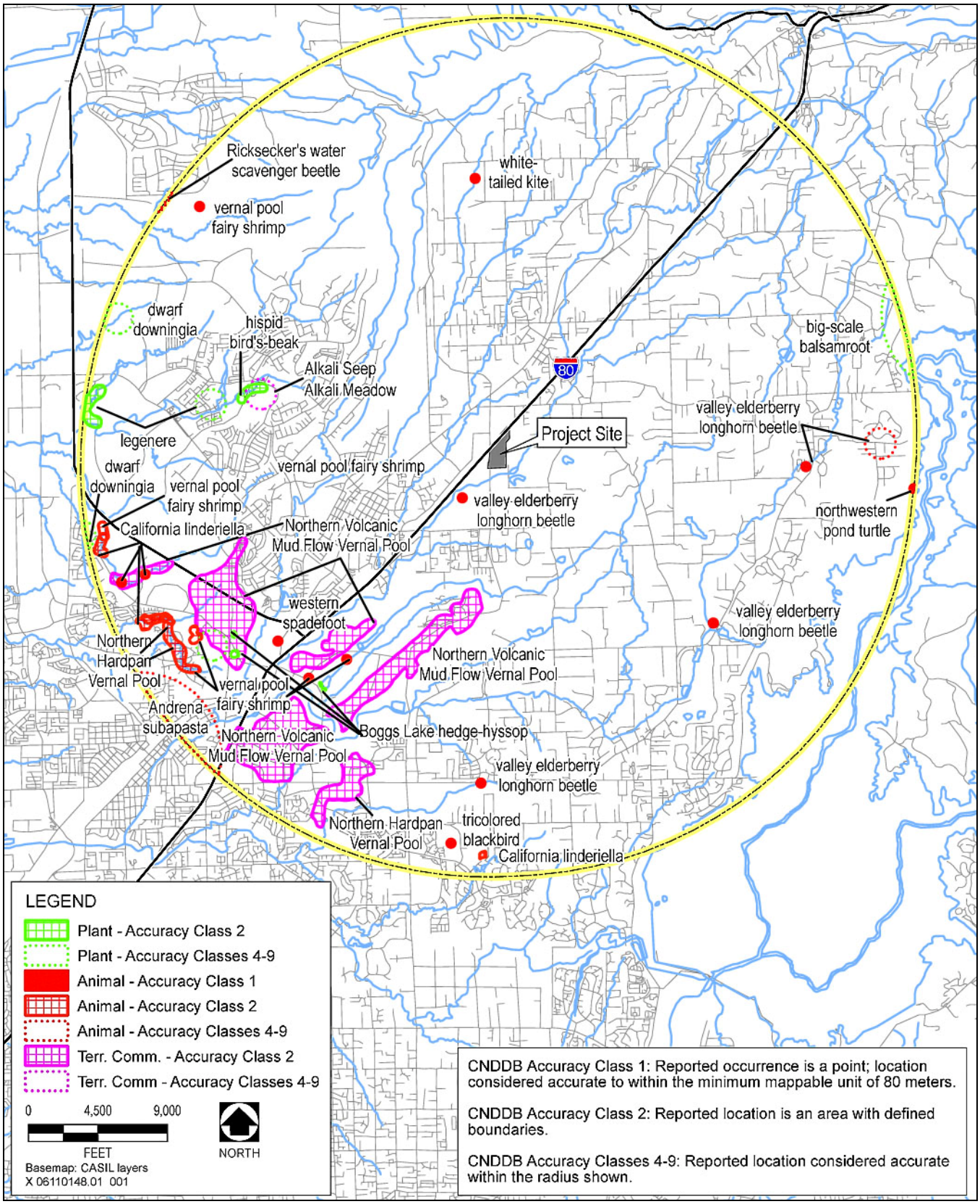
The term "California Species of Special Concern" is applied by DFG to animals that are not listed under ESA or CESA but are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and currently face known threats to their persistence. CNPS designations are used by both United States Fish and Wildlife Service (USFWS) and DFG when considering formal species protection under ESA and CESA.

The California Natural Diversity Data Base (CNDDB), CNPS, and Sacramento USFWS databases were queried to determine special-status species that are known from, or have potential to occur in the vicinity of the project site. The following U.S. Geological Survey (USGS) 7.5 minute quadrangles were included in the database searches: Rocklin, Roseville, Lincoln, Gold Hill, Auburn, Pilot Hill, Clarksville, and Folsom. Exhibit 4.12-2 identifies the location of known special-status species documented in the CNDDB as occurring within five miles of the project site. Although the CNDDB is the most current and reliable tool for tracking occurrences of special-status species, it contains only those records that have been reported to DFG.

Special-status Plants

Searches of the CNPS and CNDDB databases identified 21 special-status plant species as occurring in the vicinity of the project site. Nine of these species were identified as having no potential to occur on the project site due to narrow substrate requirements or geographical distributions and were therefore excluded from further analysis. Stebbin's morning glory (*Calystegia stebbinsii*), Pine Hill ceanothus (*Ceanothus roderickii*), Pine Hill flannelbush (*Fremontodendron decumbens),* El Dorado bedstraw (*Galium californicum* ssp. *sierrae*) and El Dorado County mule ears (*Wyethia reticulata*) are all restricted to gabbro soils in El Dorado and Nevada counties. Red Hills soap root (*Chlorogalum grandiflorum*) and Bisbee Peak rush rose (*Helianthemum suffrutescens*) are restricted to gabbro or Ione formation soils, which do not occur on the project site. Sacramento orcutt grass (*Orcuttia viscida*) is restricted to large, deep vernal pools in eastern Sacramento County, and Hispid bird's-beak (*Cordylanthus mollis* ssp. *hispidus)* occurs in damp alkaline soils in meadow, playas, and valley and foothill grasslands, which are absent from the project site.

Table 4.12-2 identifies the regulatory status, habitats, and blooming period of the remaining 12 special-status plant species evaluated in this analysis. Table 4.12-2 also provides information on the likelihood of these species to occur on the project site. Habitat and elevation range information for these species was obtained from the California Native Plant Society (CNPS) Electronic Inventory (2006).



Special-Status Species Previously Documented as Occurring within Five Miles of the Project Site

Exhibit 4.12-2

Table 4.12-2
Special-Status Plants Potentially Occurring on the Site

Species	Status[1]			Habitat and Blooming Period	Potential for Occurrence
	USFWS	DFG	CNPS		
Plants					
Jepson's onion *Allium jepsonii*	—	—	1B	Serpentine soils in cismontane woodland or lower montane coniferous forest; 1200 to 4000 feet elevation; blooms May to August	**Unlikely**; the project site is well below the elevation range of the species.
Big-scale balsamroot *Balsamorhiza macrolepis* var. *macrolepis*	—	—	1B	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes in serpentine soils; 300 to 4,600 feet elevation; blooms March to June	**Could occur**; the foothill grassland and woodland provide marginally suitable habitat; species is known to occur in the vicinity of the project site.
Brandegee's clarkia *Clarkia biloba* ssp. *brandegeeae*	—	—	1B	Chaparral, cismontane woodland; often in road cuts; 700 to 3,000 feet elevation; blooms May to July	**Unlikely**; project site is below the elevation range of this species.
Dwarf Downingia *Downingia pusilla*	—	—	2	Vernal lake and pool margins in valley and foothill grasslands; 3 to 1500 feet elevation; blooms March to May	**Could occur**; the seasonal wetland provides marginal habitat; species was not found during focused special-status plant surveys conducted in 2005.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	E	—	1B	Marshes and swamps and clay soils in vernal pools; 30 to 7800 feet; blooms April to August	**Could occur**; the seep and seasonal wetland on the site provide very marginal habitat; species was not found during focused special-status plant surveys conducted in 2005.
Aharts's dwarf rush *Juncus leiospermus* var. *ahartii*	—	—	1B	Mesic valley and foothill grassland; restricted to the edges of vernal pools; 100 to 330 feet elevation; blooms March to May	**Could occur**, the seasonal wetland on the site provides very marginal habitat species was not found during focused special-status plant surveys conducted in 2005.
Dubious pea *Lathyrus sulphureous* var. *argillaceous*	—	—	3	Cismontane woodland, lower montane coniferous forest; 490-1000 feet elevation; blooms in April	**Unlikely**; the project site is below the elevation range of this species.
Legenere *Legenere limosa*	—	—	1B	Vernal pools; in beds of pools; 3 to 3000 feet elevation; blooms April to June	**Could occur**; the seasonal wetlands on-site provide very marginal habitat; species was not found during focused special-status plant surveys conducted in 2005.

Table 4.12-2
Special-Status Plants Potentially Occurring on the Site

Species	Status[1]			Habitat and Blooming Period	Potential for Occurrence
	USFWS	DFG	CNPS		
Pincusion navarretia *Navarettia myersii* ssp. *myersii*	—	—	1B	Vernal pools in valley and foothill grassland; 60 to 1100 feet elevation; blooms in May	**Could occur**; the seasonal wetlands on-site provide very marginal habitat.
Sanford's arrowhead *Sagittaria sanfordii*	—	—	1B	In standing or slow-moving freshwater ponds, marshes, or ditches; 0 to 2000 feet elevation; blooms May to October	**Could occur;** the seasonal wetlands on-site provide very marginal habitat; species was not found during focused special-status plant surveys conducted in 2005.
Layne's ragwort *Senecio layneae*	T	R	1B	Rocky serpentine or gabbro soils in chaparral, cismontane woodland or lower montane coniferous forest; 650 to 3,300 feet elevation; blooms April to July	**Unlikely**; the project site is below the elevation range of this species, and serpentine soils are not present on the site.
Oval-leaved viburnum *Viburnum ellipticum*	—	—	2	Chaparral, cismontane woodland or lower montane coniferous forest; 600 to 4000 feet elevation; blooms May to June	**Unlikely**; the project site is below the elevation range of this species.

Legal Status Definitions
U.S. Fish and Wildlife Service (USFWS):
T = Federal Threatened
E = Federal Endangered

California Department of Fish and Game (DFG):
R = Rare
T = Threatened
E = Endangered

California Native Plant Society (CNPS) Listing Categories:
1B = Plants rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants for which more information is needed – a review list
4 = Plants of limited distribution – a watch list

Source: CNPS 2006, CNDDB 2006

Biological studies conducted for the site by ECORP and Foothill Associates between 2002 and 2007, and the 2006 reconnaissance survey conducted by EDAW biologists identified suitable habitat for seven special-status plant species on the site: Big-scale balsam-root (*Balsamorhiza macrolepis* var. *macrolepis*), dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Aharts's dwarf rush (*Juncus leiospermus* var. *ahartii*), Greene's legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii* ssp. *myersii*), and Sanford's arrowhead (*Sagittaria sanfordii*). These plants are CNPS List 1B species, considered by the CNPS to be rare, threatened, or endangered in California and elsewhere. In addition, Boggs Lake hedge-hyssop is federally listed as endangered.

Dwarf downingia, Boggs Lake hedge-hyssop, Ahart's dwarf rush, Greene's legenere, and pincushion navarretia are found in vernal pools and seasonally inundated sites. Big-scale balsam-root is typically found in cismontane woodland and valley and foothill grasslands. Sanford's arrowhead is typically found in standing or slow-moving freshwater ponds, marshes, or ditches.

A focused special-status plant survey for five of the seven species, dwarf downingia, Boggs Lake hedge-hyssop, Ahart's dwarf rush, Greene's Legenere, and Sanford's arrowhead was conducted on April 13 and June 16, 2005 (ECORP 2005b). Brief late season, follow-up visits were conducted on July 27 and August 16, 2005. No special-status plant species were found during the special-status plant surveys. Although big scale balsamroot and pincushion navarretia were not specifically included in these surveys, the methodology employed during the surveys would have likely resulted in their detection, if they were present. A followup survey for big scale balsamroot or pincushion navarretia was conducted on May 18, 2007 (ECORP). Neither one of these species nor any other special-status species were observed during this survey.

Special-Status Wildlife

A total of 10 special-status wildlife species are known to occur or have the potential to occur on the project site. They include: white-tailed kite (*Elanus leucurus*), a fully protected species under the DFG Code; Swainson's hawk (*Buteo Swainsonii*), California red-legged frog (*Rana aurora draytonii*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), State and/or federally listed as threatened or endangered; northwestern pond turtle (*Emys marmorata marmorata*), northern harrier (*Circus cyaneus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), western burrowing owl (*Athene cunicularia hypugea*), and loggerhead shrike (*Lanius ludovicianus*), DFG Species of Special Concern. The project site also has appropriate foraging and nesting habitat for additional raptor species. Table 4.12-3 summarizes the regulatory status, habitat association, and likelihood of occurrence for special-status wildlife species with potential to occur on the site.

Table 4.12-3
Special-status Wildlife Species Potentially Occurring on the Site

Species	Listing Status [1]		Habitat	Potential for Occurrence
	Fed.	State		
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T	--	Elderberry shrubs below 3,000 feet in elevation.	**Could occur**; elderberry shrubs present; nearest documented occurrence (1991) less than 0.5 mile southwest of the project site along the Sierra College nature trail.
Amphibians and Reptiles				
Northwestern pond turtle *Emys marmorata marmorata*	--	SSC	Freshwater marsh, ponds, lakes, and rivers.	**Known to occur in vicinity**; however, only suitable upland habitat is present. Observed within Croftwood Lake southeast of the project site.
California red-legged frog *Rana aurora draytonii*	T	SSC	Found in a variety of aquatic habitats including streams, ponds, and marshes often with riparian or emergent vegetation. Also utilizes upland habitats adjacent to or between suitable aquatic habitats.	**Unlikely** to occur; although suitable habitat is present, the species has been extirpated from the valley floor and few drainages in the Sierra Nevada are known to support the species. The nearest documented occurrence (2005) is approximately 8 miles southeast of the project site.
Birds				
Northern harrier *Circus cyaneus*	--	SSC	Forage in grasslands, marshes, agricultural land, and open woodlands; nest on ground or in low-growing vegetation.	**Could occur**; suitable foraging and nesting habitat present.

Table 4.12-3
Special-status Wildlife Species Potentially Occurring on the Site

Species	Listing Status [1]		Habitat	Potential for Occurrence
	Fed.	State		
White-tailed kite *Elanus leucurus*	--	FP	Forage in grasslands and other open habitat; nest in isolated trees or small woodland patches.	**Could occur**; suitable nesting and foraging habitat present; observed in 1990 within the proposed Croftwood Subdivision site to the east. Nearest CNDDB occurrence (2003) is approximately 3 miles north of project site.
Sharp-shinned hawk *Accipiter striatus*	--	SSC	Nests in dense forests or woodlands near open areas suitable for foraging.	**Could occur**; suitable foraging habitat present, but unlikely to nest onsite.
Cooper's hawk *Accipiter cooperii*	--	SSC	Forages in broken woodland and habitat edges; nests in second-growth conifer stands, or in deciduous riparian areas, usually near streams.	**Could occur**; suitable foraging and nesting habitat present.
Swainson's hawk *Buteo swainsoni*	--	T	Forages in grasslands and agricultural land; nests in riparian and isolated trees.	**Unlikely** to occur; suitable habitat present, but species typically occurs at lower elevations in this region, nearer to the valley floor; nearest CNDDB occurrence (2005) is approximately 8 miles west of project site.
Western burrowing owl *Athene cunicularia hypugea*	FSC	SSC	Grasslands, agricultural land, and open woodlands; requires burrows for nesting, typically created by mammals such as ground squirrels.	**Unlikely** to occur; suitable habitat present within the annual grassland, but species typically occurs at lower elevations in this region, nearer to the valley floor.
Loggerhead shrike *Lanius ludovicianus*	FSC	SSC	Open habitats with abundant perches; nests in densely-foliaged shrubs or trees.	**Could occur**; suitable nesting and foraging habitat present.

[1] Legal Status Definitions
U.S. Fish and Wildlife Service (USFWS)
E Endangered (legally protected)
T Threatened (legally protected)
California Department of Fish and Game (DFG)
T Threatened (legally protected)
SSC Species of Special Concern (no formal protection)
FP Fully Protected (legally protected)
Source: EDAW 2006, CNPS 2006, CNDDB 2006

Several special-status species that are known to occur in the region require specific habitats for foraging and reproduction that are not present within the project site and are therefore not likely to occur. These species include: Central Valley steelhead trout (*Oncorhynchus mykiss*), Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*), delta smelt (*Hypomesus transpacificus*), winter-run Chinook salmon, Sacramento River and Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), western spadefoot (*Scaphiopus hammondii*), giant garter snake (*Thamnophis gigas*), double crested-cormorant (*Phalacrocorax auritus*), bald eagle (*Haliaeetus leucocephalus*), bank swallow (*Riparia riparia*), tricolored blackbird (*Agelaius tricolor*), California black rail (*Laterallus jamaicensis coturniculus*), Townsend's big-eared bat (*Corynorhinus townsendi*), and red bat (*Lasiurus blossevillii*).

California black rail was identified within the Clover Valley area of Rocklin during 2006 surveys conducted for the Clover Valley EIR (City of Rocklin 2007). The typical habitat for California black rail includes coastal

saltmarsh, delta emergent marsh and interior freshwater emergent marsh. No suitable habitat is present on the site for California black rail.

Wet and dry season protocol surveys and reporting for vernal pool invertebrates were completed on the site in 2006 (ECORP 2006a). No vernal pool fairy shrimp, (*Branchinecta lynchi*) or vernal pool tadpole shrimp (*Lepidurus packardi*), were detected during the surveys and these species are not considered further in this document.

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (beetle) is federally listed as threatened pursuant to ESA. It is completely dependent on its host plant, elderberry (*Sambucus* sp.), in California's Central Valley during its entire life cycle. Beetle larvae live within the soft pith of the elderberry shrub, where they feed for one to two years. Adults emerge from pupation inside the wood of elderberry shrubs during the spring, as the plant begins to flower. The adults feed on the elderberry foliage up until they mate. Females lay their eggs in the crevices of elderberry bark. Upon hatching, the larvae tunnel into the stems of the shrub to feed. Beetles typically utilize stems that are greater than one-inch in diameter at ground level. Beetle populations in the State have decreased largely due to the loss of riparian habitat in the Central Valley; however, a five-year review of the species, required by section 4(c)(2)(A) of the Endangered Species Act, was recently completed by USFWS and recommended that the beetle be delisted. Thirty-eight elderberry shrubs were observed on the site that could provide suitable habitat for the valley elderberry longhorn beetle (VELB) (Exhibit 4.12-1). No characteristic exit holes were observed on the stems of the shrubs during the December 6, 2005 field survey (ECORP 2006b).

Northwestern Pond Turtle

The northwestern pond turtle is a DFG Species of Special Concern. Pond turtles generally occur in streams, ponds, freshwater marshes, and lakes. They require still or slow-moving water with instream emergent woody debris, rocks, or other similar features for basking sites. Nests are typically located on unshaded upland slopes in dry substrates with sandy, clay, or silty soils excavated by the female up to 400 meters (usually less) from the aquatic habitats where they occur. Within the vicinity of the project site, the areas that provide suitable aquatic habitat include Secret Ravine Creek, ponds within the adjacent property to the east (i.e., the proposed Rocklin 60 residential subdivision site), and Croftwood Lake within the approved Croftwood Subdivision east of Secret Ravine Creek (The Planning Center 1991). Suitable nesting habitat is present throughout the project site within the adjacent oak woodland and annual grassland; however, suitable nesting habitat is available closer to aquatic habitat within the adjacent property to the east.

California Red-Legged Frog

California red-legged frog is a DFG Species of Special Concern and is federally listed as threatened. The frog utilizes a variety of aquatic and upland habitats throughout its life cycle including ponds, slow-flowing portions of perennial streams, and intermittent streams that maintain water in the summer months. The frog is able to disperse or migrate from breeding sites to forage in upland habitats and is known to move up to two miles (3 km) from aquatic sites, regardless of topography or vegetation, during the wet season. Additionally, during the summer months when aquatic sites tend to dry out, California red-legged frog is known to disperse overland to suitable estivation (dormancy) habitat that can include small mammal burrows, moist leaf litter, riparian corridors, or stream channels with shallow pools, such as those in Secret Ravine Creek. Suitable habitat is present within seasonal wetlands on-site, within the ponds and wetlands of the adjacent property to the east, and in Croftwood Lake. Suitable upland habitat is present within oak woodland and annual grassland on the site. However, the species has been extirpated from the valley floor and few drainages in the Sierra Nevada are known to support California red-legged frogs. The closest known occurrence is approximately eight miles southeast of the site near the eastern shore of Folsom Lake (CNDDB 2006). No critical habitat has been designated for this species within 30 miles of the site.

Swainson's Hawk

The Swainson's hawk is State listed as a threatened species and is protected under Section 3503.5 of the California Fish and Game Code. This species prefers to nest in riparian forest or scattered trees adjacent to grasslands and/or agricultural fields that provide suitable foraging habitat. The closest known occurrence of Swainson's hawk is approximately eight miles west of the project site. Although the Secret Ravine Creek riparian corridor and the larger oaks on the project site provide potential nest sites for Swainson's hawk, nest sites are typically restricted to lower elevations, primarily on the valley floor (CNDDB 2006). Therefore, Swainson's hawks are unlikely to nest on or near the project site.

Western Burrowing Owl

Western Burrowing Owl is a DFG Species of Special Concern. This species is also protected under Section 3503.5 of the California Fish and Game Code, which prohibits the destruction of raptors and their nests. Burrowing owls prefer dry grasslands and other dry, open habitats. They typically nest and roost in burrow systems created by medium-sized mammals, such as ground squirrels, artificial sites such as drain pipes or culverts, or self-excavated burrows when soil conditions are appropriate. There are no documented records of burrowing owls within five miles of the project area. Although suitable habitat and a few suitable small mammal burrows exist on-site, it is rare to find them nesting in the foothills as far east as the project site.

Other Special-Status Raptors

Other special-status raptors that could use the project site include white-tailed kite, Cooper's hawk, sharp-shinned hawk, and northern harrier. Cooper's hawk, sharp-shinned hawk, and northern harrier are DFG Species of Special Concern. All of these raptors are also protected under Section 3503.5 of the California Fish and Game Code. White-tailed kite, fully protected under Section 3511 of the California Fish and Game Code, has been observed foraging in the nearby Croftwood Subdivision area (The Planning Center 1991). Annual grassland and oak woodland on the site provide suitable foraging habitat for all three species. Suitable nesting habitat for white-tailed kite and Cooper's hawk is located in the oak woodland habitat on the project site.

Loggerhead Shrike

The loggerhead shrike is a DFG Species of Special Concern. Loggerhead shrike inhabit lowland and foothill areas with scattered shrubs and trees. They nest in shrubs and small trees and typically forage in grasslands and agricultural fields. Suitable foraging and nesting habitat is present throughout the project area.

Sensitive Fish Species within Secret Ravine Creek

Due to a lack of available habitat, no fish habitat are present on the project site. However, Secret Ravine Creek, which is located between 300 and 800 feet southeast of the project site, does provide habitat for sensitive fish species. These species include the following:

Central Valley Fall/Late Fall-Run Chinook Salmon

Central Valley fall/late fall-run Chinook salmon is a federal Species of Concern and a DFG Species of Special Concern. Secret Ravine Creek supports a population of fall-run Chinook salmon. Chinook salmon typically spawn in swift, relatively shallow riffles, along edges of fast runs where there is an abundance of loose gravel, or in tailouts of pools where depths decline, water velocity increases and one- to four-inch gravels settle out, and where water flows down into gravel to oxygenate the eggs. Embryos hatch in 40 to 60 days, then stay within the gravel for an additional four to six weeks until the yolk sack is completely absorbed and begin emigration shortly after emergence from the gravel. Development of these early life stages is dependent on stream temperature and embryo development is particularly sensitive to temperature stress.

Records from the Sacramento River document a decline in the numbers of returning spawners from one million prior to 1915 to an average of 176,000 between 1967 and 1991 (Reynolds et al. 1990 and Mills and Fisher 1994, cited in Dry Creek Conservancy 2001). Central Valley fall/late fall-run Chinook salmon have been recorded in Secret Ravine Creek, averaging about 160 fish per year since the late 1990's (Jones & Stokes 2005). Secret Ravine Creek also provides most of the suitable spawning habitat in the Dry Creek watershed (ibid).

Central Valley Steelhead Trout

Central Valley steelhead trout is a federal threatened species known to occur in Secret Ravine Creek. Prior to the closure of rivers by dams, water manipulation, and watershed disturbances of the past two centuries, steelhead was found throughout the tributaries and headwaters of the Sacramento River. Steelhead trout are anadromous rainbow trout that emigrate to sea and later return to inland waters to spawn, requiring water temperatures that remain cool in late spring and summer. Steelhead prefer swift, shallow water and clean loose gravel for spawning. Steelhead prefer shallower depths and smaller gravel compared to Chinook salmon and are much less tolerant of fine sediments in gravel substrates because of their smaller egg size and higher oxygen demand. However, suitable spawning habitat for both species may co-exist within the same stream, as they do in Secret Ravine Creek. Embryos generally hatch in 30 days, emerging from the gravel as fry four to six weeks after hatching. Juvenile steelhead remain for a year in fresh water before beginning to emigrate to the ocean. Secret Ravine Creek was included in the Valley-American Hydrologic Unit of critical habitat for the California Central Valley steelhead. Designation of Secret Ravine Creek as critical habitat for steelhead ensures that activities requiring federal consultation will not adversely modify critical habitat to the point that it will no longer aid in the species' recovery.

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the CWA, or the State's Porter-Cologne Act, as discussed in the Regulatory Setting section below. Sensitive habitats may be of special concern to these agencies and to conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these habitats are tracked in the CNDDB, a Statewide inventory of the locations and conditions of the State's rarest plant and animal taxa and vegetation types.

The seasonal wetlands and seeps present on the project site qualify as jurisdictional waters of the United States. The oak woodland present on the site is considered sensitive habitat by DFG and the City of Rocklin.

Waters of the United States

The project site includes the following jurisdictional waters of the United States: two seasonal wetlands (0.014 acre), a seasonal wetland swale (0.087 acre), and two seeps (0.325 acre). The habitats associated with these wetland features are described above in the Habitat Types section of this chapter and the locations of these features are identified in Exhibit 4.12-3.

Oak Woodland

Oak woodland is typically considered a sensitive habitat by DFG and local agencies, although it is not currently tracked in the CNDDB. 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 and the Rocklin Oak Tree Preservation Ordinance, described below under *Regulatory Setting*.

A tree survey of the project site was completed by Foothill Associates in September 2007. A total of 221 oak trees were located, measured, and evaluated within the project site.

Jurisdictional Wetlands on the Project Site **Exhibit 4.12-3**

Tree species assessed include interior live oak (131), valley oak (65) and blue oak (25). The City defines a heritage tree as any oak tree with a trunk diameter of 24 inches or greater and in good or fair health and structural condition. Based on the City's definition, only two heritage trees were identified on the site. Of the 221 total trees, 52 trees that were identified in previous tree surveys are now dead. Five of these dead trees were located in the adjacent Sierra College Boulevard/Interstate 80 interchange project area and have since been removed. The 47 remaining dead oak trees, 44 of which are located within the proposed detention basin area, died as a result of a fire in September 2002.

Trees on the site excluded from the evaluation include non-native species and native species with a trunk smaller than 6 inches in diameter at breast height (DBH). The trunk diameter of a multi-trunk tree is the measurement of the largest trunk only.

Wildlife Movement Corridors

A wildlife corridor is generally a topographical/landscape feature or movement area that connects two areas of natural habitat. Wildlife corridors link areas of suitable wildlife habitat that are separated by changes in vegetation, rugged terrain, or human disturbance. Secret Ravine Creek is likely to serve as a movement corridor for a variety of wildlife species due to the continuity of the riparian vegetation along its length.

4.12.2 REGULATORY SETTING

Biological resources in California are protected by a variety of federal, State and local laws and regulations. Important regulations pertaining to biological resources in the project area are discussed below.

FEDERAL REGULATORY ISSUES

Federal Endangered Species Act

Pursuant to ESA, USFWS and National Marine Fisheries Service (NMFS) have authority over projects that may affect the continued existence of a federally listed (threatened or endangered) species. Section 9 of ESA and federal regulations prohibit the take of federally listed fish or wildlife species (16 United States Code [USC] Section 1538[a][1][B]). "Take" is defined under ESA, in part, as killing, harming, or harassing (16 USC Section 1539[19]). Under federal regulations, take is defined further to include habitat modification or degradation where it actually results or is reasonably expected to result in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

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

Section 7 of ESA outlines procedures for federal interagency cooperation to conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS to ensure that the federal agencies are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat identifies specific areas that have the physical and biological features that are essential to the conservation of a listed species, and that may require special management considerations or protection.

For projects where federal action is not involved and take of a listed species may occur, the project proponent may seek to obtain an incidental take permit under Section 10(a) of ESA. Section 10 allows USFWS to permit the incidental take of listed species if such take is accompanied by a Habitat Conservation Plan (HCP) that includes components to minimize and mitigate impacts associated with the take.

Migratory Bird Treaty Act

As part of the Federal Migratory Bird Treaty Act (MBTA), all active nests of migratory birds (e.g., those with eggs or nestlings) are protected under federal law, MBTA (15 USC 703-11), 50 CFR Part 21, 50 CFR Part 10, and State law. Under the California Fish and Game Code, Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes (hawks, eagles and falcons) or Stringiformes (owls). Together, these two orders include all birds considered "raptors", or birds of prey. "Take" includes the disturbance of active nests that result in the abandonment or loss of young. The MBTA prohibits activities that have the potential to disturb all active bird nests or burrows on a project site. A preconstruction survey is required by CDFG and USFWS for birds if project activities occur within the breeding season window. The breeding season window considered by CDFG is January 1 to August 31. Preconstruction surveys are to be conducted no more than 30 days prior to ground disturbance. Some restrictions on construction activities may be required in the vicinity of the nests or burrows until the site is no longer active, as determined by a qualified biologist. This protection generally ceases once nesting activity is completed.

Clean Water Act

Section 404 of the federal Clean Water Act (CWA) requires a permit before engaging in any activity that involves any discharge of dredged or fill material into "waters of the United States," including wetlands. Fill material means material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land; or changing the bottom elevation of any portion of a water of the United States. Examples of fill material include, but are not limited to: rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and material used to create any structure or infrastructure in waters of the United States. Waters of the United States include navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; tributaries to any of these waters; and, wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation; hydric soil types; and, wetland hydrology. Many surface waters and wetlands in California meet the criteria for waters of the United States, including intermittent streams and seasonal lakes and wetlands.

Under Section 404 of the CWA, U.S. Army Corps of Engineers (USACE) regulates and issues permits for activities that involve the discharge of dredged or fill materials into waters of the United States. Fill of less than one-half acre of nontidal waters of the United States for residential, commercial, or institutional development projects can generally be authorized under USACE's nationwide permit (NWP) program, provided that the project satisfies the terms and conditions of the particular NWP. Fills that do not qualify for a NWP or regional general permit require an individual permit.

STATE REGULATORY ISSUES

California Endangered Species Act

Pursuant to CESA, a permit from DFG is required for projects that could "take" a species that is State listed as threatened or endangered (California Fish and Game Code Section 2050 et seq.). Under CESA, take is defined as an activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" as in the federal act. As a result, the threshold for take under CESA is higher than under ESA (i.e., habitat modification is not necessarily considered take under CESA). The take of State-listed species incidental to otherwise lawful activities requires a permit, pursuant to Section 2081(b) of CESA. The State has the authority to issue an incidental take permit under California Fish and Game Code Section 2081, or to coordinate with USFWS during the Section 10(a) process to make the federal permit consistent with CESA.

As under federal law, listed plants have considerably less protection than fish and wildlife under California law. The California Native Plant Protection Act (California Fish and Game Code Section 19000 et seq.) allows landowners to take listed plant species from, among other places, a canal, lateral ditch, building site, road, or other right-of-way, provided that the owner first notifies CDFG and gives the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. The project site is a "building site" within the meaning of the applicable statute (Fish and Game Code Section 1913).

Section 1602 of the California Fish and Game Code

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by the DFG, pursuant to Sections 1600–1603 of the California Fish and Game Code. The Code states that it is unlawful for any person or agency to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by DFG, or to use any material from the streambeds, without first notifying DFG of such activity. The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. DFG's jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. A DFG Streambed Alteration Agreement must be obtained for any project that would adversely affect a river, stream, or lake.

Fully Protected Species under the California Fish and Game Code

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

California Fish and Game Code Sections 3503–3503.5 - Protection of Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under jurisdiction of the Regional Water Quality Control Board (RWQCB). Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and ground water, as well as actions to control non-point and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification under Section 401 of the CWA.

LOCAL REGULATORY ISSUES

City of Rocklin General Plan

Several policies in the City of Rocklin General Plan (1991) address natural resource protection. Specific action plans and policies included in the Open Space, Conservation and Recreation Element of the General Plan that apply to the preservation of natural resources include the following:

Action Plan

- The City will apply open space designations to all lands located within 50 feet from the edge of the bank of all perennial and intermittent streams and creeks providing natural drainage, adjacent to areas consisting of riparian habitat. The City will designate a buffer area greater than 50 feet for perennial streams when it is determined that such a buffer area is necessary to adequately protect drainage and habitat areas. In designating these areas as open space, the City is preserving natural resources and protecting these areas from development.

- The City will require a restricted easement recorded over any property that contains areas designated for preservation, including wetlands, vernal pools, and rare, threatened and endangered species habitat. Such easements would restrict the use and type of structures located within them, when such action does not conflict with the permitting requirements of other agencies.

- The City will investigate the availability of, and consider applying for, state and federal grants to be used for the preservation and enhancement of open space, conservation, and recreation areas.

- The City will discourage the premature and unnecessary conversion of open space land to urban uses by requiring development to be contiguous.

Policies

- Policy 1. To encourage the protection of natural resource areas, scenic areas, hilltops, open space areas and parks from encroachment or destruction by incompatible development through the use of conservation easements, buffers, setbacks or other measures. Developments shall be required to provide usable land areas outside of conservation easements or established natural resource buffers.

- Policy 2. To encourage 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 4. To encourage the protection of oak trees, including heritage oaks, and other significant vegetation from destruction.

- Policy 15. To provide adequate yard areas and building setbacks from creeks, riparian habitat, hilltops, and other natural resources.

- Policy 19. To minimize the degradation of water quality through requiring implementation of techniques such as, but not limited to, the prohibition of grading, placement of fill or trash or alteration to vegetation within designated stream setback buffer areas, and requiring the installation of measures which minimize runoff waters containing pollutants and sediments from entering surface waters. Measures for minimizing pollutants and sediments from entering watercourses may include oil/grit separators, detention basins and flow reduction devices.

Rocklin Oak Tree Preservation Ordinance

The City of Rocklin has recognized the value of native trees through the adoption of the City of Rocklin Oak Tree Preservation Ordinance, Chapter 17.77 of the City of Rocklin Municipal Code. The ordinance contains policy language which 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. Protected trees include any oak tree native to the Rocklin area with a diameter at breast height (DBH) of six 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. 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.

4.12.3 IMPACTS AND MITIGATION MEASURES

METHOD OF ANALYSIS

The analysis included in this section is based on a review of available background reports, previous studies conducted on the project site, biological resource databases, aerial photography interpretation, and a reconnaissance level site survey conducted by EDAW biologists on September 29, 2006. Specific biological resource background reports reviewed in preparing this section are identified in Table 4.12-1. The purpose of the reconnaissance site visit was to assess current site conditions, classify and map habitats, evaluate the potential of the project site to support sensitive biological resources including special-status species and to verify the biological resources assessment data previously collected at the project site.

Potential impacts on biological resources resulting from implementation of the proposed project were determined by overlaying project plans with the habitat map for the project site, quantifying potential loss of common and sensitive habitats, and evaluating potential effects to common and special-status species that could result from this habitat loss.

THRESHOLDS OF SIGNIFICANCE

Pursuant to Appendix G of the CEQA Guidelines and CEQA Guidelines Section 15065, impacts on biological resources resulting from implementation of the proposed project would be considered significant if the project would:

- Substantially degrade the quality of the environment;
- Substantially reduce the habitat of a fish or wildlife species;
- Cause a fish or wildlife species to drop below self-sustaining levels;
- Threaten to eliminate a plant or animal community;
- Substantially reduce the number or restrict the range of an endangered, rare, or threatened species;
- 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 California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act, through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with City of Rocklin General Plan policies protecting biological resources, or violates the City of Rocklin Oak Tree Preservation Ordinance; or,
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State conservation plan.

IMPACTS AND MITIGATION MEASURES

IMPACT 4.12-1 Loss of Wetlands. *Implementation of the proposed project would result in the fill of jurisdictional waters of the United States, including wetlands. This impact is considered* ***significant****.*

Implementation of the proposed project would result in the fill of jurisdictional waters of the United States, including wetlands that are subject to USACE jurisdiction under the federal Clean Water Act. The project site includes a total of 0.014 acre of seasonal wetland, 0.087 acre of seasonal wetland swale, and 0.325 acre of seeps. All of these wetlands would be removed during project construction. Because the proposed project would result in the direct removal of federally protected wetlands, this impact would be considered **significant**.

No wetlands or waters are located within the water line extension areas. Therefore, no impacts on wetlands or waters would occur within these offsite areas with project implementation.

Mitigation Measure 4.12-1: Loss of Wetlands.

On May 16, 2007, the project applicant secured authorization for the fill of approximately 0.426 acres of jurisdictional waters of the United States (Nationwide Permit No. 39). Prior to commencing any construction activities associated with the proposed project, the project applicant shall comply with all of the terms and conditions of the Nationwide Permit. In addition, the project applicant shall obtain water quality certification pursuant to Section 401 of the Clean Water Act for the project. Any measures required as part of the issuance of water quality certification shall be implemented.

If the proposed project is constructed before the proposed Rocklin 60 residential development is approved, a buffer area shall be established between the detention basin and the wetland resources to the north and east prior to the commencement of construction activities on the project site. Temporary construction fencing shall be installed around these wetland resources for the duration of construction period to ensure construction vehicles and personnel are restricted from entering the wetland areas. This mitigation will not be necessary if the proposed Rocklin 60 residential subdivision is developed prior to construction of the proposed project because the Rocklin 60 project would remove and mitigate for the loss of this wetland habitat.

Level of Significance after Mitigation

With the implementation of the above mitigation measures, impacts on waters of the United States, including wetlands, would be reduced to a less-than-significant level.

IMPACT 4.12-2 Disturbance of Common Plant and Wildlife Species. *Implementation of the proposed project would result in the removal of common plant and wildlife species. These effects would not substantially reduce the habitat of any common species, cause a species to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. Therefore, this impact is considered* ***less than significant****.*

Implementation of the proposed project would result in the removal of approximately 45 acres of non-native annual grassland. Annual grassland is considered a common community both locally and regionally. Project construction would also result in the loss of common plants, small mammals, reptiles, amphibians, and other animals of slow mobility that live within the project's direct impact area, including the offsite detention basin area. More mobile wildlife species now using the project site could potentially move into adjacent rural residential and undeveloped areas. Although habitat for common species and some individuals of these species would be lost, these effects would not substantially reduce the habitat of any common species, cause a species to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. The impacts on common plant and wildlife species resulting from the proposed project are considered **less than significant**.

Mitigation Measure 4.12-2: Disturbance of Common Plant and Wildlife Species. No mitigation measures would be necessary.

Level of Significance after Mitigation

Impacts on common plants and wildlife species would be considered less than significant.

IMPACT 4.12-3 Loss of Native Oak and Heritage Trees - Short Term. *Implementation of the proposed project would result in the removal of all of the native oak trees on the site, including two heritage trees. This impact would be considered* ***significant and unavoidable*** *in the short-term because the removed trees would not be immediately replaced with mature oak trees.*

Implementation of the proposed project would result in the removal of native oak trees, including heritage trees. The removal of native oak trees and the encroachment of construction activities into the protected zones of these trees are subject to the requirements of the City of Rocklin Oak Tree Preservation Ordinance, Chapter 17.77, City of Rocklin Municipal Code. Protected trees include any oak tree native to the Rocklin area, with a diameter at breast height (DBH) of six 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.

Based on the native oak tree survey conducted by Foothill Associates in 2007, 216 native oak trees would be removed with project implementation including two heritage trees. This total includes 47 trees that died as a result of a fire in September 2002 and two heritage oak trees. If the proposed Rocklin 60 residential project is constructed before the proposed project, the removal of the native oak trees necessary to construct the detention basin would occur as part of this separate project.

The removal of native oak trees associated with project implementation would result in the loss of a sensitive natural community. This impact would be considered **significant and unavoidable** in the short-term because the removed trees would not be immediately replaced with mature oak trees.

Mitigation Measure 4.12-3: Loss of Native Oak and Heritage Trees - Short Term.

Prior to any grading or construction activity, the project applicant must obtain a tree permit from the City that will include provisions for replacing lost trees and an oak tree restoration plan will be developed and implemented. This plan will provide for the replacement of as many oaks as feasible within the project area.

If adequate locations cannot be found, as determined by the Development Services Manager, to replace all removed oak trees, then the remaining mitigation requirement may be met through payment into the existing City of Rocklin Tree Preservation Fund. Payments shall be calculated using the following formula:

Step 1:

Trunk Diameter at Breast Height (TDBH) of all Surveyed Trees on the Site X 20% = Discount Diameter

Step 2:

TDBH of all Surveyed Trees on the Site to be Removed - Discount Diameter = Total Number Inches of TDBH of Replacement Trees Required

Such payments shall be made prior to the issuance of building permits, with review and approval by the City Engineer.

The protection of oak trees not scheduled for removal must comply with pertinent sections of the City's Oak Tree Preservation Ordinance.

Level of Significance after Mitigation

With the implementation of the above mitigation measures, the trees removed with site development would be replaced at a minimum of a 2:1 ratio, consistent with the City's Oak Tree Preservation Ordinance. However, in the short -term, this impact would be considered significant and unavoidable because the removed trees would not be immediately replaced with mature oak trees.

IMPACT 4.12-4 Loss of Native Oak and Heritage Trees - Long Term. *Implementation of the proposed project would result in the removal of all of the native oak trees on the site, including two heritage trees. This impact would be considered* ***potentially significant*** *in the long-term.*

As identified in Impact 4.12-3, implementation of the proposed project would result in the removal of native oak trees, including heritage trees. Based on the native oak tree surveys conducted for the site, approximately 221 native oak trees would be removed from the site with project implementation, including two heritage oak trees. The removal of native oak trees associated with project implementation would result in the loss of a sensitive natural community. This impact would be considered **potentially significant** in the long-term.

Mitigation Measure 4.12-4: Loss of Native Oak and Heritage Trees - Long Term.

Implement Mitigation Measure 4.12-3.

Level of Significance after Mitigation

With the implementation of the above mitigation measures, the trees removed with site development would be replaced at a minimum of a 2:1 ratio, consistent with the City's Oak Tree Preservation Ordinance. This impact would be reduced to a less-than-significant level in the long-term once replanted trees become established and mature.

IMPACT 4.12-5 Disturbance or Removal of Special-Status Plant Species. *Implementation of the proposed project would not result in the loss or disturbance of special-status plant species. This would be considered a* ***less-than-significant*** *impact.*

Implementation of the proposed project would not be expected to adversely affect special-status plant species. Protocol-level surveys for five of the seven special-status plant species identified as having the potential to occur on the project site were conducted on April 13 and June 16, 2005 (ECORP 2005b). These species include dwarf downingia, Boggs Lake hedge-hyssop, Ahart's dwarf rush, Greene's Legenere, and Sanford's arrowhead. None of the five targeted special-status plants were found on the project site during the protocol-level surveys. A follow-up survey targeting big-scale balsom-root and pincushion navarettia was conducted during May 2007. This follow-up survey revealed no evidence that either species was present on the site (ECORP 2007). Therefore, the proposed project would not be expected to adversely affect, either directly or through habitat modifications, any special-status plant species. This impact would be **less than significant**.

Mitigation Measure 4.12-5: Disturbance or Removal of Special-Status Plant Species.

No mitigation measures are necessary.

Level of Significance after Mitigation

No special-status plant species are anticipated to be disturbed with project implementation. Therefore, impacts on special-status plant species would be considered less than significant.

IMPACT 4.12-6 Disturbance of Valley Elderberry Longhorn Beetle Habitat. *Implementation of the proposed project would result in the loss of elderberry shrubs, which provide potential habitat for the valley elderberry longhorn beetle. The loss of valley elderberry longhorn beetle habitat would be considered a* ***significant*** *impact.*

Implementation of the proposed project would result in the loss of thirty-eight elderberry shrubs. These elderberry shrubs provide potential habitat for the valley elderberry longhorn beetle. Although none of the shrubs on the site displayed exit holes characteristic of beetle habitation, use by the beetle is rarely apparent. Field studies suggest that larvae can be present in elderberry stems with no evidence of exit holes, because the larvae either succumb before constructing an exit hole or are not far enough along in the developmental process to construct an exit hole. Removal or disturbance of elderberry shrubs could reduce the number of valley elderberry longhorn beetles, a federally threatened species, which would constitute a substantial adverse effect to a federal special-status species. Because the loss of elderberry shrubs would result in substantial habitat modification for the valley elderberry longhorn beetle, this impact is considered **significant**.

The USACE consulted with the USFWS regarding potential effects to federally listed species. This consultation resulted in a Biological Opinion issued on March 10, 2006. The Biological Opinion authorized incidental take and stipulated required mitigation measures.

Mitigation Measure 4.12-6: Disturbance of Valley Elderberry Longhorn Beetle Habitat.

The project applicant shall comply with the terms and conditions of the Biological Opinion issued by USFWS on March 10, 2006.

Level of Significance after Mitigation

With the implementation of the above mitigation measures all valley elderberry longhorn beetle habitat removed would be replaced. Therefore, impacts on valley elderberry longhorn beetle would be reduced to a less-than-significant level.

IMPACT 4.12-7 Disturbance of California Red-Legged Frog Habitat. *Implementation of the proposed project would not be expected to adversely affect California red-legged frog due to the marginal habitat on the site and distance to known populations. Therefore, the project's potential impacts on this species would be considered* ***less than significant****.*

The proposed project is not expected to adversely affect California red-legged frog. The limited amount and marginal suitability of breeding habitat on the site, distance to known extant populations of California red-legged frogs, site hydrology, and physical terrain characteristics make the occurrence of the frog and its potential use of the site highly unlikely. The closest known occurrence of the species is eight miles east of the project site and populations in the Sierra Nevada foothills are rare. Upland habitat on the site is flanked by Interstate 80, which presents a physical barrier to the northwest; in addition, the site does not lie between suitable aquatic sites, and therefore, would not be used as a migration corridor by the species. Because red-legged frogs are unlikely to utilize the project site, implementation of the proposed project would not reduce the number or restrict the range of this threatened species or interfere substantially with their movement. Potential impacts on California red-legged frog are considered less than significant.

Mitigation Measure 4.12-7: Disturbance of California Red-Legged Frog Habitat.

No mitigation measures would be necessary.

Level of Significance after Mitigation

Impacts to this species would be considered less than significant.

IMPACT 4.12-8 Disturbance of Western Pond Turtle Habitat. *Implementation of the proposed project would not be expected to adversely affect western pond turtle due to the marginal habitat on the site. Therefore, the project's potential impacts on this species would be considered* ***less than significant****.*

Project development is not likely to adversely affect western pond turtle. Although the project site contains suitable upland nesting habitat, suitable nesting habitat is available off-site, closer to suitable aquatic habitat on adjacent properties. Upland habitat on the site is flanked by Interstate 80, which presents a physical barrier to the northwest; in addition, the site does not lie between suitable aquatic sites, and therefore, would not be used as a migration corridor by the species. Because northwestern pond turtle are unlikely to utilize the project site, implementation of the proposed project would not reduce the number or restrict the range of this species or interfere substantially with their movement. Impacts on western pond turtle are considered **less than significant**.

Mitigation Measure 4.12-8: Disturbance of Western Pond Turtle Habitat.

No mitigation measures would be necessary.

Level of Significance after Mitigation

Potential impacts on western pond turtle would be considered less than significant.

IMPACT 4.12-9 Disturbance of Burrowing Owl Habitat. *Implementation of the proposed project would not be expected to adversely affect burrowing owls because it is rare to find them nesting in the foothills as far east as the project site and there are no documented records of burrowing owls within five miles of the project area. Therefore, the project's potential impacts on this species would be considered* ***less than significant****.*

Project development is not likely to adversely affect burrowing owls. Although the project site contains suitable habitat and a few suitable small mammal burrows exist on-site, it is rare to find them nesting in the foothills as far east as the project site and there are no documented records of burrowing owls within five miles of the project area. Therefore, implementation of the proposed project would not reduce the number or restrict the range of this species or interfere substantially with their movement. Impacts on burrowing owls are considered **less than significant**.

Mitigation Measure 4.12-9: Disturbance of Burrowing Owl Habitat.

No mitigation measures would be necessary.

Level of Significance after Mitigation

Impacts on burrowing owls would be considered less than significant.

IMPACT 4.12-10 Disturbance of Raptors and Migratory Birds. *Loss of nests of special-status species would result in substantial adverse effects to local populations. This would be considered a* ***significant*** *impact.*

The oak woodland and non-native annual grassland on the project site provides foraging and nesting habitat for common and special-status bird species. The oak woodland habitat in the offsite detention pond area also provides foraging and nesting habitat for these species. Active raptor nests and nests of other migratory birds are protected by California Fish and Game Code Section 3503.5 and by the Federal Migratory Bird Treaty Act. Special-status birds with potential to nest on-site include Cooper's hawk, white-tailed kite, and loggerhead shrike. Common raptors and migratory birds could also nest on the site. Removal and/or disturbance of active nests of common and special-status nesting birds could result from project implementation. Disturbance of nesting pairs could result in nest abandonment and loss of active nests. Loss of active nests of common species could be a violation of the Federal Migratory Bird Treaty Act and Fish and Game Code, but would not constitute a significant impact under CEQA, because it would not cause the population of a species to drop below self-sustaining levels or threaten to eliminate an animal community. Loss of nests of special-status species would result in substantial adverse effects to local populations. This would be considered a **significant** impact.

Mitigation Measure 4.12-10: Disturbance of Raptors and Migratory Birds.

a. Removal of nesting habitat for raptors and migratory birds shall be timed to avoid the nesting season.

b. If vegetation removal and/or project construction occurs during the nesting season for raptors and migratory birds, preconstruction surveys shall be conducted by a qualified biologist approved by the City. The surveys shall cover all areas of suitable nesting habitat within 500 feet of project activity and shall be conducted within 14 days prior to commencement of project activity. The surveys shall be valid for one construction season. If no active nests are found, no further mitigation shall be required.

c. If active nests are found, impacts shall be avoided by establishment of appropriate buffers. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active. DFG guidelines recommend implementation of 500-foot buffers, but the size of the buffer may be adjusted if a qualified biologist determines through consultation with CDFG and/or USFWS that construction activities would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist may be required if the activity has potential to adversely affect the nest.

Level of Significance after Mitigation

With implementation of the above mitigation measures, impacts on raptors and migratory birds would be avoided. Therefore, this impact would be reduced to a less-than-significant level.

IMPACT 4.12-11 Degradation of Chinook Salmon and Steelhead Trout Habitat. *Project development would not be expected to directly affect Central Valley fall/late fall-run Chinook salmon or Central Valley steelhead trout. No habitat is present on the project site and the nearest habitat within Secret Ravine Creek is located approximately 300 feet to the southeast at its closest point. However, if uncontrolled, soil erosion generated during project construction and urban pollutants generated from the site during site operations could indirectly affect fish habitat by degrading the water quality within Secret Ravine Creek. Therefore, potential impacts on these species are considered* ***significant****.*

Project development would not be expected to directly affect habitat for the Central Valley fall/late fall-run Chinook salmon or Central Valley steelhead trout. The closest habitat to the project site is located within Secret Ravine Creek, which is located approximately 300 feet to the southeast of the project site at its closest point. Therefore, direct disturbance of Secret Ravine Creek would not occur with project implementation. However, if uncontrolled, soil erosion generated during project construction and urban pollutants generated from the site during site operations could indirectly affect fish habitat by degrading the quality of the water that discharges from the site. Because storm water discharge from the site ultimately flows into Secret Ravine Creek, there is the potential that the water quality in the creek could be adversely degraded. Because degraded water quality within Secret Ravine Creek could result in a substantially adverse modification of fish habitat, this impact would be considered **significant**.

Mitigation Measure 4.12-11: Degradation of Chinook Salmon and Steelhead Trout Habitat.

Implement Mitigation Measures 4.10-2 and 4.10-3 identified in Section 4.10, Hydrology and Water Quality of this report in order to ensure water quality within Secret Ravine Creek is not substantially degraded with project construction and operation.

Level of Significance after Mitigation

With the implementation of the BMPs identified in Mitigation Measures 4.10-2 and 4.10-3, the storm water discharge from the project site would be captured within the project's drainage systems and would be filtered through oil/water separators and/or other equally effective control systems prior to being directed to the detention basin. Once in the detention basin, the settlement of undissolved solids would occur, further removing contaminants from the storm water. As the storm water is discharged from the detention basin, it would flow through an existing grassy swale for approximately 300 feet before entering Secret Ravine Creek. The grassy swale would remove additional contaminants within the storm water through biofiltration. The implementation of these BMPs, consistent with the requirements of the site's NPDES permit and the SWPPP, would ensure that the quality of the water entering Secret Ravine Creek would not be substantially degraded. With implementation of the identified mitigation measures, the project's impacts on Central Valley fall/late fall-run Chinook salmon and Central Valley steelhead trout would be reduced to a less-than-significant level.