4.12 BIOLOGICAL RESOURCES

This section describes biological resources that are present or have the potential to occur on the project site. Resources described include biological communities, common plant and wildlife species, and special-status species. This section also includes a brief overview of the federal, State and local laws and regulations pertaining to the protection of biological resources in the City of Rocklin. A discussion of impacts on biological resources that could result from implementation of the proposed project is included, and mitigation measures to reduce potentially significant impacts to a less-than-significant level are proposed, when applicable.

The biological resource information presented in this section is based on a review of available background reports, previous studies conducted on or near the project site, biological resource databases, including the California Department of Fish and Game (DFG) California Natural Diversity Database (CNDDB), aerial photography interpretation, and a reconnaissance-level site survey conducted by EDAW biologists on September 29, 2006. Previous studies of the project site and studies of adjacent properties that were reviewed during preparation of this biological resources section are listed in Table 4.12-1.

Table 4.12-1
Studies of the Project Site and Adjacent Properties

Title*	Author	Date
Croftwood Subdivision Final EIR	City of Rocklin	March 1, 1991
Sierra College Boulevard/Interstate 80 Interchange Draft and Final EIR	City of Rocklin	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
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 60	ECORP Consulting, Inc.	1/13/2006
Wetland Assessment, Special Species Assessment/Elderberry Survey, Rocklin 105	ECORP Consulting, Inc.	3/8/2002
Riparian Delineation, Rocklin 60	ECORP Consulting, Inc	11/30/2005
Special Status Plant Survey, Rocklin 60	ECORP Consulting, Inc.	11/22/2005
Wet / Dry Report of Findings – Branchiopods, Rocklin 60	ECORP Consulting, Inc.	4/3/2006
USFWS Biological Opinion for Valley Elderberry Longhorn Beetle (Service File Number 1-1-96-F-0066)	Peter A. Cross, USFWS	6/1/2007
Updated Arborist Report, Rocklin 60, City of Rocklin, California	Foothill Associates	12/11/2007

*Rocklin 105 refers to the Rocklin 60 property plus most of the adjacent Rocklin Crossings parcel

4.12.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The approximately 57-acre site is located in the Sierra Nevada foothills in Placer County, southeast of the Interstate 80 (I-80) and Sierra College Boulevard interchange in the City of Rocklin. The project site is bordered by I-80 and rural residential property to the north, the Rocklin Crossings property (approved retail development project) to the west, and Secret Ravine and the Croftwood Subdivision (residential development under construction) to the east and south, respectively. Existing retail commercial and residential land uses exist to the northwest of the project site across I-80. Areas south, east, and west of the project site consist of large undeveloped areas interspersed with oak woodlands and rural residences. Secret Ravine, a perennial stream that is a tributary to Miner's Ravine, Dry Creek, and ultimately to the Sacramento River, via the Natomas East Main Drainage Canal (Steelhead Creek), forms the southeastern boundary of the project site.

LOCAL SETTING

The project site is currently undeveloped and characterized by plant communities typical of the Sierra Nevada foothills. The site is dominated by a mix of oak woodland and annual grassland, with several wetland features dispersed throughout. The site topography is gently rolling terrain with elevations ranging from about 360 feet above sea level at the western edge to about 300 feet above sea level along Secret Ravine. Construction of an access road south of the project site was underway at the time of the reconnaissance visit by EDAW biologists. This road is located along the southern edge of the site extending from the southwest corner and the adjacent Rocklin Crossings project site to a bridge that spans Secret Ravine and provides access from Sierra College Boulevard to a development project commonly known as "Croftwood," which is located just east of Secret Ravine.

HABITAT TYPES

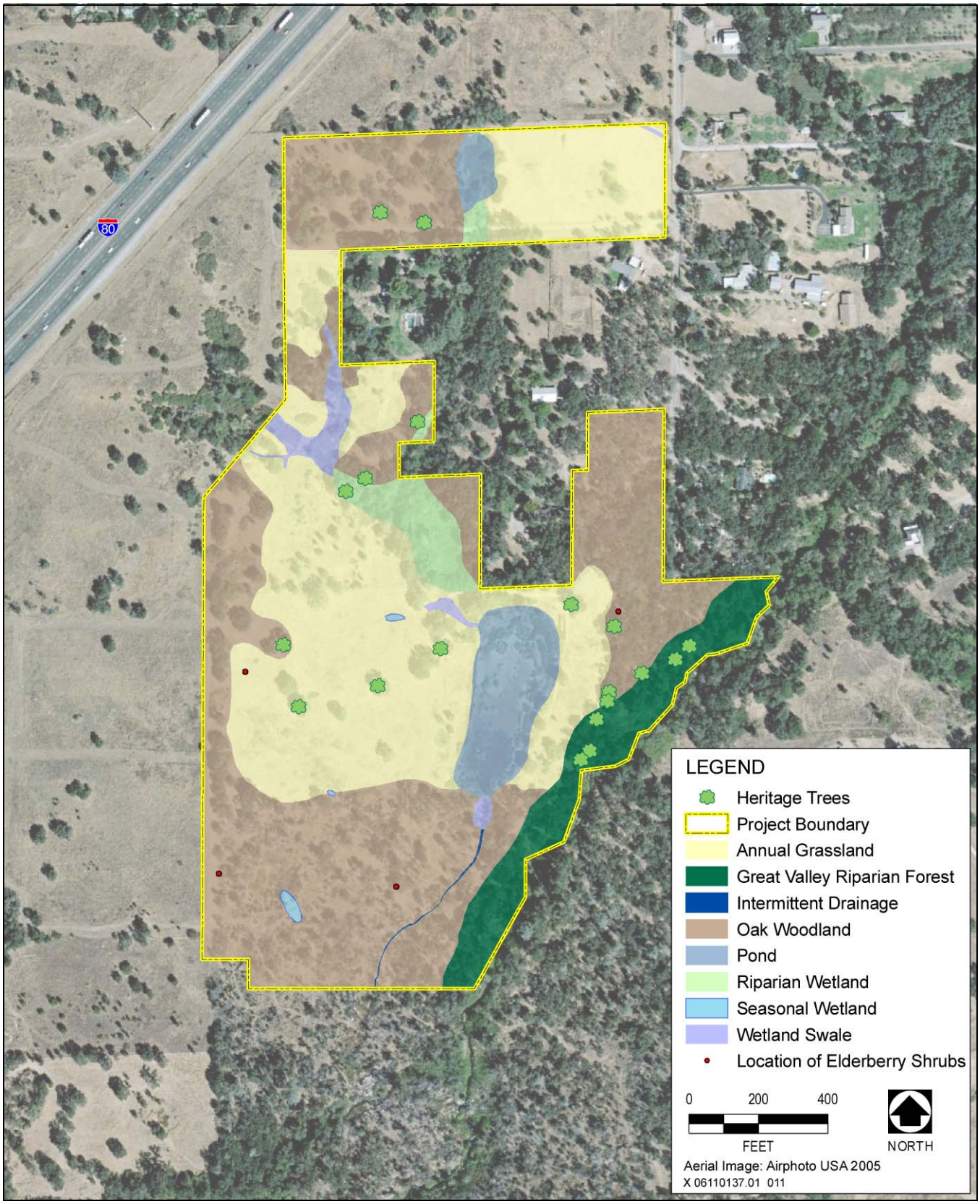
Habitat types present on the Rocklin 60 project site are briefly described below; the location and extent of each habitat type is shown in Exhibit 4.12-1.

Annual Grassland

Annual grassland occupies approximately 19 acres of the 57-acre 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*) and blue oak (*Quercus douglasii*) trees are present in the annual grassland. Dense thickets of Himalayan blackberry (*Rubus discolor*) also extend into the grassland from adjacent wetland swales and riparian wetlands.

Oak Woodland

Mixed blue oak, interior live oak, and valley oak (*Quercus lobata*) woodland occurs on approximately 27 acres of the property. This habitat type ranges from a closed-canopy community of predominantly interior live oak and valley oak to a more open-canopy, blue oak dominated savanna with granite rock outcroppings. The area mapped as oak woodland in the southern half of the property is 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*). The herbaceous layer is primarily composed of annual grassland species mentioned above.



Source: Data compiled by EDAW 2006

Location and Extent of Habitat Types, Elderberry Shrubs, and Heritage Trees on Rocklin 60 Site Great Valley Mixed Riparian Forest **Exhibit 4.12-1**

The great valley mixed riparian forest on the project site is found within the 4.3-acre riparian corridor along Secret Ravine that forms the southeastern boundary of the property. This forest has an open tree canopy with mature valley oak, Fremont's cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), and Gooding's black willow (*Salix gooddingii*). The shrub layer is dense with native and non-native shrubs, including Himalayan blackberry, wild rose (*Rosa californica*), mulefat (*Baccharis salicifolia*), and button willow (*Cephalanthus occidentalis*). The herbaceous understory includes western goldenrod (*Euthamia occidentalis*), mugwort (*Artemesia douglasiana*), annual beard grass (*Polypogon monspeliensis*), and pokeweed (*Phytolacca americana*).

Seasonal Wetland

Three small seasonal wetlands totaling 0.5 acre are scattered throughout the property. These features were identified and described in the wetland delineation report prepared for the project (ECORP 2003). Seasonal wetlands typically form in areas that are underlain by slowly permeable soils and hold moisture longer in the spring than the adjacent grasslands. The seasonal wetlands on the project site are dominated by species that are indicative of wet soils, such as Italian ryegrass (*Lolium multiflorum*), Mediterranean barley (*Hordeum marinum*), and annual beard grass.

Riparian Wetland

Riparian wetland occurs on 1.6 acres of the project site where woody vegetation has become established in topographic drainages that remain wet throughout the majority of the year. This is partly because of overflow from the smaller pond to the north and a small pond located just off-site, both of which receive flow from an underground canal. Other ephemeral swales (discussed below) also flow into the riparian wetland. These wetlands are dominated by Himalayan blackberry and shrubby willows (*Salix exigua* and *Salix lasiolepis*), with patches of cattails (*Typha* spp.) in the openings where standing water is found.

Wetland Swale

Wetland swales occupy 0.9 acre of the project site. These are topographic drainages that primarily convey water during storm events. They occur in areas that remain saturated into the growing season, support wetland vegetation, and exhibit soil characteristics typical of wetlands. Wetland swale areas on-site are dominated by Himalayan blackberry. Herbaceous species such as Italian ryegrass, curly dock (*Rumex crispus*), and nutsedge (*Cyperus eragrostis*) occur in the openings.

Intermittent Drainage

The intermittent drainage occupies 0.09 acre on the project site and flows from the larger of the two ponds, through the oak woodland in the southern portion of the site, and into with Secret Ravine just south of the project site boundary. The drainage is characterized by narrowly cut channels with rocky substrates and little in-channel vegetation. In several places, a fringe of seasonal wetland vegetation borders the channel. Standing water is only present during and shortly after storm events.

Pond

The two manmade ponds on the project site, totaling 2.4 acres, are fed by a localized watershed during the wet season and are characterized by relatively moderate flows during the winter. These flows are augmented year-round by water that enters the site from an underground canal. Dominant vegetation within the ponds includes species that require extended periods of inundation and/or saturation, such as cattails, nutsedges (*Cyperus* spp.), bulrush (*Scirpus californicus*), spikerush (*Eleocharis macrostachya*), joint Paspalum (*Paspalum distichum*), Baltic rush (*Juncus balticus*), and mosquito fern (*Azolla filiculoides*) floating on the water surface. The large pond drains to the south pond, into a wetland swale, through the intermittent drainage, and eventually to Secret Ravine.

WILDLIFE

The variety of habitat types, including annual grassland, oak woodland, seasonal wetland, riparian woodland, and the perennial Secret Ravine creek, combined with the rural setting and geologic features (granitic rock outcroppings and river bottom) provide valuable habitat for wildlife. The site likely provides foraging and breeding habitat for a wide variety of invertebrates, amphibians, reptiles, birds, and mammals.

Wildlife species likely to occur on the project site are typical of annual grasslands, oak woodlands and riparian woodlands of the Sierra Nevada Foothills. Mammals observed or detected on the site during the ECORP and EDAW biological surveys 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*). Bird species observed or detected include Canada goose (*Branta canadensis*), wood duck (*Aix sponsa*), 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*), white-breasted nuthatch (*Sitta carolinensis*), and ruby-crowned kinglet (*Regulus calendula*). 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 on-site include gopher snake (*Pituophis melanoleucus*) and western rattlesnake (*Crotalus viridis*), and striped racer (*Masticophis lateralis*). Pacific treefrogs (*Hyla regailla*) are known to occur on site, and western toad (*Bufo boreas*) is likely to occur.

Fisheries

Secret Ravine is known to provide spawning beds that support wild populations of fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*). Other native and introduced fish species known to occur within Secret Ravine include lamprey (*Lampetrus* spp.), bluegill (*Leopomis macrophirus*), green sunfish (*Leopomis cyanellus*), red ear sunfish (*Leopomis microlophus*), brown bullhead (*Ictalosus nebulosus*), Sacramento sucker (*Catostomus occidentalis*), Sacramento squawfish (*Ptychocheilus grandis*), hitch (*Lavinia exilicauda*), goldfish (*Carassius auratus*), and mosquito fish (*Gambusia affinis*) (Gerstung 1965 as reported by The Planning Center 1991).

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 include 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 the 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 considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California." The CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS Inventory) (CNPS 2005) 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 2005) are considered "special plants" by DFG. The term "special plants" is a broad term used by DFG to refer to all of the plants 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); 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 (DFG 2006). However, a plant species need not be in the CNPS Inventory to be considered a rare, threatened, or endangered species under CEQA.

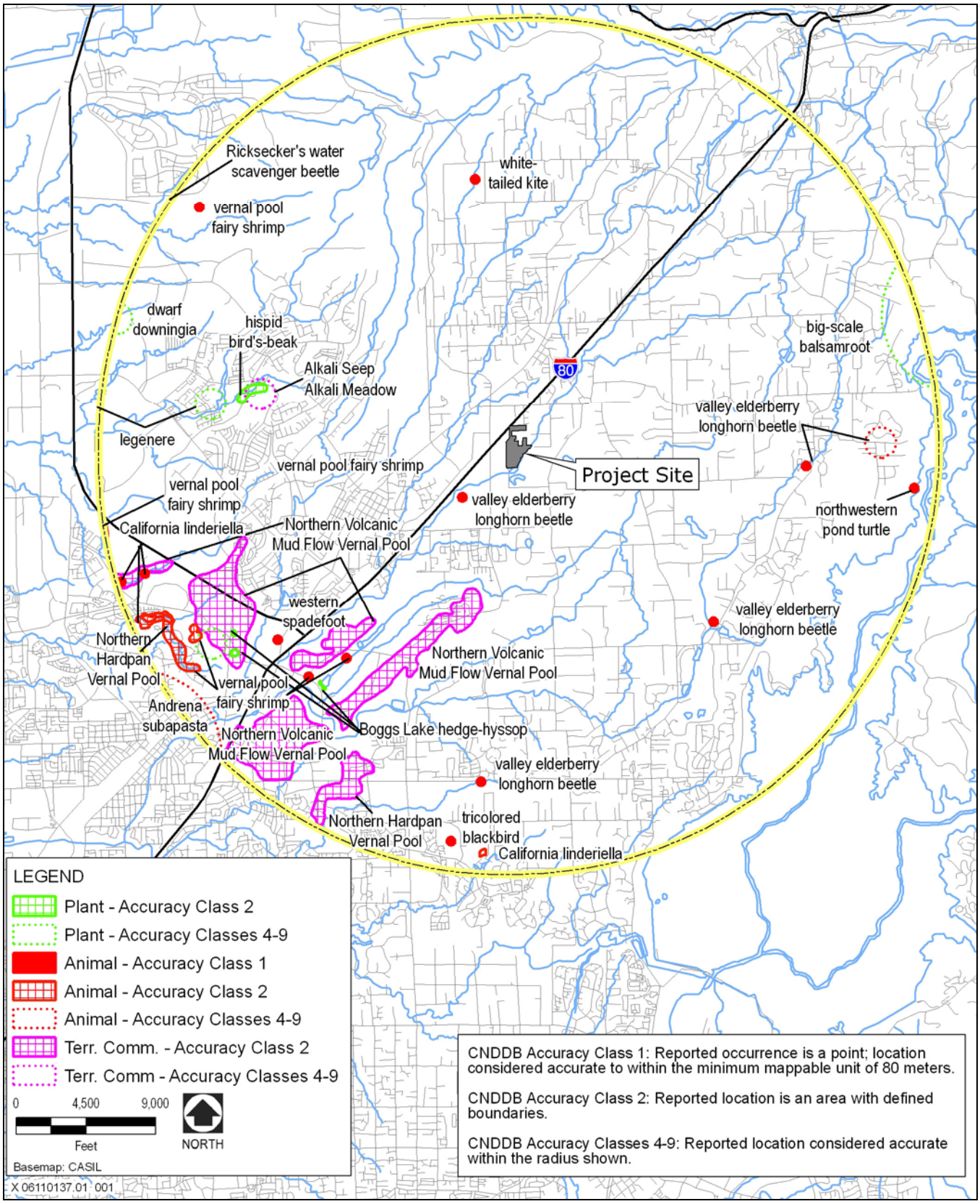
The term "California Species of Special Concern" is applied by DFG to animals that are not listed under ESA or CESA but are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and currently face known threats to their persistence. CNPS designations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

The California Natural Diversity Database (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 shows the location of special-status species occurrences five miles of the project site that are recorded in the CNDDB.

Although the CNDDB is the most current and reliable tool for tracking occurrences of special-status species, it is important to note that is 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 that occur in the vicinity of the project site. Nine of these species were determined to have no potential to occur on the project site because of specific substrate requirements or a limited geographical distribution, 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. Pincushion navarettia (*Navarretia myersii* ssp. *myersii*) is restricted to vernal pools, which do not occur on the site.



Source: CNDDB 2006

CNDDB Occurrences – Rocklin 60 **Exhibit 4.12-2**

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

Table 4.12-2
Special-Status Plants Known from the Vicinity of the Rocklin 60 Project 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; 1,200 to 4,000 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	**Unlikely**; no chaparral habitat present, and the foothill grassland and woodland habitats present are highly disturbed.
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 1,500 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 7,800 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; 490–1,000 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 3,000 feet elevation; blooms April to June	**Could occur**; the seasonal wetland onsite provide very marginal habitat; species was not found during focused special-status plant surveys conducted in 2005.

Table 4.12-2 (Continued) Special-Status Plants Known from the Vicinity of the Rocklin 60 Project Site					
Species	Status[1]			Habitat and Blooming Period	Potential for Occurrence
	USFWS	DFG	CNPS		
Pincusion navarretia *Navarretia myersii* ssp. *Myersii*	—	—	1B	Vernal pools in valley and foothill grassland; 60 to 1,100 feet elevation; blooms in May	**Unlikely**; no suitable vernal pools habitat present.
Sanford's arrowhead *Sagittaria sanfordii*	—	—	1B	In standing or slow-moving freshwater ponds, marshes, or ditches; 0 to 2,000 feet elevation; blooms May to October	**Could occur**; the freshwater marsh onsite provides minimal habit; 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 4,000 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
Source: CNPS 2006, CNDDB 2006

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

The 2002 Wetland Assessment, Special Status Species Assessment, and Elderberry Survey conducted by ECORP (ECORP 2002), as well as the 2006 reconnaissance survey conducted by EDAW biologists, identified suitable habitat for five special-status plant species on the site: dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Aharts's dwarf rush (*Juncus leiospermus* var. *ahartii*), Greene's legenere (*Legenere limosa*), and Sanford's arrowhead (*Sagittaria sanfordii*). These plants are CNPS List 1B species, considered to be rare, threatened, or endangered in California and elsewhere, although not legally protected under either the ESA or CESA. In addition, Boggs Lake hedge-hyssop is federally listed as endangered. Big-scale balsam-root (*Balsamorhiza macrolepis* var. *macrolepis*) has been found in areas of cismontane woodland and valley and foothill grasslands, which are present on the site, but is more typically found in open sandy chaparral settings, which are not present on the site. After supplemental communication with the ECORP biologist who conducted the original focused surveys, it was determined that the heavily disturbed grasslands and woodlands on the site were not suitable habitat for this species (Scarazzo, pers. comm., 2006).

Dwarf downingia, Boggs Lake hedge-hyssop, Ahart's dwarf rush, and Greene's Legenere are found in vernal pools and seasonally inundated sites. Sanford's arrowhead is typically found in standing or slow-moving freshwater ponds, marshes, or ditches. A focused survey for these five special-status plant species with potential to occur on the site was conducted by ECORP on April 13 and June 16, 2005. No special-status plant species were found during the survey.

Special-Status Wildlife

A total of 18 special-status wildlife species are known to occur or have the potential to occur in the project vicinity. Table 4.12-3 summarizes the regulatory status, habitat associations, and likelihood of these species to occur on the site. The project site also has appropriate foraging and nesting habitat for additional bird species that are not considered special-status species, but are protected by State and/or federal regulations.

Table 4.12-3
Special-status Wildlife Species With Potential to Occur or Known to Occur on the Rocklin 60 Project 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.
Fish				
Central Valley fall/late fall-run Chinook salmon *Oncorhynchus tshawytscha*	__	SSC	Spawning habitat in upstream reaches of Sacramento River tributaries.	**Known to occur**; suitable spawning habitat present in Secret Ravine.
Central Valley steelhead trout *Oncorhynchus mykiss*	FT	__	Spawning habitat in upstream reaches of Sacramento River tributaries.	**Known to occur**; suitable spawning habitat and designated critical habitat present in Secret Ravine.
Amphibians and Reptiles				
Northwestern pond turtle *Emys marmorata marmorata*	__	SSC	Ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with aquatic vegetation, typically in woodland, grassland, and open forest habitats	**Known to occur** in vicinity; suitable habitat within and adjacent to Secret Ravine and ponds onsite. Known to occur within Croftwood Lake adjacent to 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, east of Folsom Lake.
Foothill yellow-legged frog *Rana boylii*	__	SSC	Rocky perennial streams in a variety of habitats.	**Could occur**; suitable habitat present in Secret Ravine, but no known extant populations in the project vicinity.

Table 4.12-3 (Continued) Special-status Wildlife Species With Potential to Occur or Known to Occur on the Rocklin 60 Project Site				
Species	Listing Status [1]		Habitat	Potential for Occurrence
	Fed.	State		
Birds				
Northern harrier *Circus cyaneus*	__	SSC	Forage in grasslands, marshes, agricultural land, and open woodlands; nest on ground or in low-growing vegetation.	**Unlikely to occur**; suitable foraging habitat present, but only marginal nesting habitat present and species is uncommon in foothill areas.
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 adjacent Croftwood site. 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 woodland onsite is unlikely to be suitable for nesting.
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 7 miles west of project site.
Western burrowing owl *Athene cunicularia hypugea*	__	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.
Yellow warbler *Dendroical petechia*	__	SSC	Medium-density deciduous riparian woodlands with brushy understory for breeding.	**Could occur**; suitable nesting and foraging habitat present.
Yellow-breasted chat *Icteria virens*	__	SSC	Riparian thickets of willow and other brushy tangles near water and thick understory in riparian woodland.	**Could occur**; suitable foraging and nesting habitat present.
Tricolored blackbird *Agelaius tricolor*	__	SSC	Nests in dense cattails, bulrush, or thickets of willow, blackberry near fresh water emergent marsh. Forages in croplands, grasslands, or edges of ponds.	**Unlikely to occur**, suitable foraging habitat onsite but only marginal nesting habitat present within seasonal wetlands and Himalayan blackberry.

Table 4.12-3 (Continued) Special-status Wildlife Species With Potential to Occur or Known to Occur on the Rocklin 60 Project Site				
Species	Listing Status [1]		Habitat	Potential for Occurrence
	Fed.	State		
Loggerhead shrike *Lanius ludovicianus*	__	SSC	Open habitats with abundant perches; nests in densely-foliaged shrubs or trees.	**Could occur**; suitable nesting and foraging habitat present.
California black rail *Laterallus jamaicensis coturniculus*	__	T; Fully Protected	Nests in high portions of shallow freshwater marshes, wet meadows, and flooded grassy vegetation vegetated by fine-stemmed emergent plants	**Could occur**; a limited amount of potentially suitable habitat is provided by cattail marshes adjacent to the stock ponds on the project site.
Mammals				
Ringtail *Bassariscus astutus*	__	FP	Prefers a mixture of shrub and forested land in close proximity to or within riparian habitats or rocky areas.	**Could occur**; suitable habitat present onsite.

[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 known to occur in the general region require specific habitats for foraging or reproduction that are not present within the project site and/or are restricted to localized areas within the region that do not include the project site. Therefore, these species are unlikely to occur on the site and are not addressed further in this analysis. They include: 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*), and bank swallow (*Riparia riparia*). Wet and dry season protocol surveys and reporting for vernal pool invertebrates were completed by ECORP (2006a). No vernal pool invertebrate species were detected during the surveys; therefore, these species are not considered further in this document.

Valley elderberry longhorn beetle

The valley elderberry longhorn beetle is federally listed as threatened. It is completely dependent on its host plant, blue elderberry (*Sambucus mexicanus*), during its entire life cycle, and is generally restricted to California's Central Valley and adjacent foothills. Larvae of these beetles live within the soft pith of the elderberry shrub where they feed for one to two years. Adults emerge from 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. The 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 historical 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 as a result of recent restoration efforts that have led to an increase in available habitat for the species. Forty-six elderberry shrubs were observed on the project site and could provide suitable habitat for the valley elderberry longhorn beetle. No characteristic exit holes were observed on the stems of the shrubs during the December 6, 2005 field survey conducted by ECORP.

Central Valley Fall/late Fall-run Chinook Salmon

Central Valley fall/late fall-run Chinook salmon is a DFG Species of Special Concern. Secret Ravine supports a population of fall-run Chinook salmon. There are no accurate records of the size of the run in Secret Ravine or whether fall-run was the only historic race in the stream. However, records for 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). 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 become shallow, water velocity increases and one- to four-inch gravels settle out, and water flows down through the gravel to oxygenate the eggs. Embryos hatch in 40 to 60 days, but stay within the gravel for an additional four to six weeks until the yolk sack is completely absorbed. Fry begin emigration shortly after emergence from the gravel. Development in these early life stages is dependent on stream temperature, with embryo development being particularly sensitive to temperature stress. Central Valley fall/late fall-run Chinook salmon have been recorded in Secret Ravine, averaging about 160 fish per year since the late 1990s (Jones & Stokes 2005). Secret Ravine also provides most of the suitable spawning habitat in the Dry Creek watershed.

Central Valley Steelhead

Central Valley steelhead is a federally threatened species known to occur in Secret Ravine. Prior to the closure of rivers by dams, water manipulation, and watershed disturbances of the past two centuries, steelhead were found throughout the tributaries and headwaters of the Sacramento River. Steelhead 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, 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. 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 is included in the Valley-American Hydrologic Unit of critical habitat for the California Central Valley steelhead. Designation of Secret Ravine as critical habitat for steelhead requires that activities requiring federal consultation will not adversely modify critical habitat to the point that it will no longer aid in the species' recovery.

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 silt soils excavated by the female up to 400 meters (usually less) from the aquatic habitats where they occur. Suitable aquatic habitat on the project site includes Secret Ravine, the two ponds, and seasonal wetlands. Suitable upland nesting habitat may be provided by grassland slopes on the site. The species was observed within Croftwood Lake located approximately 700 feet south of the project site (City of Rocklin 1991).

California Red-legged Frog

California red-legged frog is a DFG Species of Concern and federally listed as threatened. This 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. Potentially suitable aquatic and upland habitat is present on and adjacent to the project site. However, the species has been extirpated from the valley floor and few drainages in the Sierra Nevada and adjacent foothills are known to support red-legged frogs. The closest known occurrence is approximately eight miles southeast of the project site near the eastern shore of Folsom Lake (CNDDB 2006). Therefore, red-legged frogs are unlikely to occur on the project site. No critical habitat has been designated for this species within 30 miles of the project site.

Foothill Yellow-legged Frog

Foothill yellow-legged frog is a DFG Species of Special Concern. This frog requires shallow, flowing water, characteristic of moderate-sized streams with some cobble-sized substrate that provide suitable locations for egg laying and refuge habitat for larvae and metamorphs, although they have been found in streams that lack cobble or larger-sized pebbles. Egg masses are typically placed on the down stream side of boulders or cobbles following periods of high flow from winter rainfall (late March–early June). Known populations in the western slope drainages of the Sierra Nevada are widely scattered. No populations are known from the project vicinity, but Secret Ravine provides suitable habitat for the species and it could occur on-site.

Swainson's Hawk

Swainson's hawk is State listed as threatened and is protected under Section 3503.5 of the California Fish and Game Code, which prohibits the destruction of raptors and their nests. 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 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 occur 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. 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, they are rarely documented in the Sierra Nevada foothills (CNDDB 2006) and are unlikely to occur on 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 (City of Rocklin 1991). Annual grassland and oak woodland on-site provide suitable foraging habitat for all three species. Suitable nesting habitat for white-tailed kite and Cooper's hawk is provided by the riparian corridor and oak woodland within the project site.

Yellow Warbler and Yellow-breasted Chat

Both yellow warbler and yellow-breasted chat are DFG Species of Special Concern. They typically nest in the brushy riparian understory, 2–16 feet above the ground. Within the project site, these species could occur in the open and medium-density deciduous riparian woodlands and shrubby thickets that occur along Secret Ravine.

Tricolored Blackbird

Tricolored blackbird is a DFG Species of Special Concern. This species is highly colonial, and suitable nesting habitat requires three basic components: open accessible water, nesting substrate protected by flooded or spiny vegetation, and suitable foraging habitat with adequate numbers of insect prey (Beedy and Hamilton 1999). All three components for suitable nesting habitat exist within the seasonal wetland near the center of the site and small patches of Himalayan blackberry; however, these habitats are limited in area and provide only marginal-quality habitat. In addition, the 2005 Tricolored blackbird survey (USFWS, unpublished data) reported only two nesting colonies in western Placer County, approximately 11 and 15 miles northwest of the project site. Two additional nesting colonies were found in Sacramento County, approximately 14 and 15 miles south of the project site. Tricolored blackbirds are unlikely to occur on the project site, because of the limited amount of suitable nesting habitat and lack of nesting colonies in the vicinity.

Loggerhead Shrike

The loggerhead shrike is a DFG Species of Special Concern. These shrikes 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 site.

California Black Rail

California black rail is state listed as a threatened species and designated as fully protected in the California Fish and Game Code. This species has been found at several Sierra Nevada locations in Yuba, Butte, Placer, and Nevada Counties where it nests in shallow freshwater marshes or flooded grassy vegetation characterized by water depths of about one inch that do not fluctuate during the year (DFG 2005). This sparrow sized rail may raise two broods each breeding season, which begins as early as March and extend as late as early September, however, the breeding season at the project site is likely compressed because of the elevation of the site. Freshwater marshes associated with the stock ponds and swales on the project site provide potentially suitable habitat for the species. In 2006, a probable territorial male California black rail was detected through vocalizations in Clover Valley, approximately 2 air miles northwest of the project site, in a large cattail-dominated wetland surrounding Clover creek (CNDDB 2007).

Ringtail

Ringtail is a DFG Fully Protected Species. On the project site, it could be found within the riparian habitats along Secret Ravine, where it would den within rock crevices, boulder piles, underground cavities, or hollow trees. It is an opportunistic feeder relying primarily on insects but also feeding on small mammals, birds and eggs, reptiles, invertebrates, nuts, fruit, and sometimes carrion. The entire site provides suitable foraging habitat for the species.

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 Clean Water Act (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.

Habitats present on the project site that are likely to fall under jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and/or DFG include wetlands, riparian wetlands, wetland swales, two ponds, the intermittent drainage and Secret Ravine. The great valley mixed riparian forest

along Secret Ravine is also considered a sensitive habitat by DFG, and the oak woodland present on-site is considered a sensitive habitat by DFG and the City of Rocklin.

Waters of the United States

A jurisdictional delineation of waters of the United States, including wetlands, of the project site and the adjacent Rocklin Crossings property, was conducted by ECORP in 2003 and is included in Appendix F. For the Rocklin 60 project site, the delineation identified the following acreages of potential jurisdictional waters of the United States: 0.049 acre of seasonal wetland, 1.508 acres of riparian wetland, 0.632 acre of wetland swale, 2.433 acres of pond, 0.064 acre of intermittent drainage, and 0.487 acre of perennial creek (Secret Ravine). The habitats associated with these jurisdictional features are described above in the Habitat Types section of this chapter and their locations are shown in Exhibit 4.12-1.

Great Valley Mixed Riparian Forest

Great valley mixed riparian forest is considered a sensitive habitat by DFG and is tracked in the CNDDB. The structure and species composition of the riparian forest is described above in the Habitat Types section of this chapter. The riparian forest occurs along Secret Ravine in the 4.3-acre corridor identified in the delineation report prepared by ECORP (ECORP 2005c).

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 oak trees through the adoption of the Rocklin Oak Tree Preservation Ordinance, described below under Regulatory Setting.

Approximately 27 acres of oak woodland are present on the project site. A tree survey of the project site and the adjacent Rocklin Crossings property was completed by Foothill Associates in March 2002, with supplemental tree survey work conducted in November 2007 and an updated arborist report dated December 11, 2007. A total of 1,254 oak trees on the Rocklin 60 property were identified, measured, and evaluated (Foothill Associates 2007). Tree species assessed include interior live oak, valley oak, and blue oak. Trees on-site that were excluded from the evaluation include non-native species and native species smaller than 6 inches diameter at breast height (dbh).

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 otherwise separated by changes in vegetation, rugged terrain, and/or human disturbance. Secret Ravine and the associated riparian area serve as a movement corridor for a variety of wildlife species.

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 the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) 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

The Migratory Bird Treaty Act (MBTA) implements domestically a series of international treaties that provide for migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird…" (U.S. Code Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property.

Clean Water Act

Section 404 of the federal CWA establishes a requirement for a project applicant to obtain 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, the 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 State law. The California Native Plant Protection Act (California Fish and Game Code Section 19000 et seq.) allows landowners to take listed plant species from, among other places, a canal, lateral ditch, building site, or road, or other right-of-way, provided that the owner first notifies 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 result in impact on 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 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 contain language explicitly designed to protect woodland habitat and ensure the designation, protection, and conservation of natural resources and open space to preserve natural lands and provide recreational opportunities for the citizens of Rocklin. The plan gives priority to the protection of riparian and natural drainage areas to help assure adequate provision of recreational areas, the protection of existing and future open space areas, and the conservation of important natural resources. Specific action plans and policies included in Section 4 of the Open Space, Conservation and Recreation Element of the General Plan that apply to the preservation of natural resources and are relevant to the proposed project include the following.

Action Plans

- 1. (page 60) 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.

- 2. (page 60) 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.

- 4. (page 60) 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.

- 5. (page 60) 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. 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. 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. Encourage the protection of oak trees, including heritage oaks, and other significant vegetation from destruction.

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

- Policy 18. Promote, where appropriate, the joint use of streams for flood control, open space, conservation of natural resources, and limited recreation.

- Policy 19. 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 recognizes the value of native trees through adoption of both policy and ordinances in the City of Rocklin Oak Tree Preservation Ordinance, Chapter 17.77 of the City of Rocklin Municipal Code. The ordinance contains policy language 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

METHODOLOGY

A reconnaissance-level field survey of the project site was conducted by EDAW biologists on September 29, 2006. The purpose of the reconnaissance survey 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 assess the accuracy of biological resources assessments previously conducted for 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 and other potential direct and indirect effects.

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 DFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by DFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the CWA, 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 violate the City of Rocklin Oak Tree Preservation Ordinance; or,
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan;

IMPACTS AND MITIGATION MEASURES

IMPACT 4.12-1 Effects on Federally Protected Waters of the United States. *Implementation of the proposed project would result in loss of nearly 5 acres of features that qualify for USACE jurisdiction. This impact would be significant.*

The wetland delineation report conducted for the project site identified a total of 5.173 acres of features that qualify as jurisdictional waters of the United States, subject to USACE regulation and protection under the federal Clean Water Act. These include 0.049 acre of seasonal wetland, 1.508 acres of riparian wetland, 0.632 acre of wetland swale, 2.433 acres of pond, 0.064 acre of intermittent drainage, and 0.487 acre of perennial creek (Secret Ravine). The site plan for the proposed project incorporates a setback from the Secret Ravine riparian corridor and protection of this perennial creek feature. However, the remaining 4.622 acres of wetlands and ponds and the

majority of the 0.064-acre intermittent drainage are within the development footprint and would be permanently filled as a result of project implementation. In addition, the perennial creek could be indirectly affected by a reduction in water quality resulting from increased sedimentation and potential introduction of contaminants from adjacent development. Exhibit 4.12-3 depicts an overlay of these wetland features and the proposed site plan. Fill of these wetland features would result in a substantial adverse effect to federally protected wetlands, as defined by Section 404 of the CWA. This impact is considered **significant**.

Mitigation Measure 4.12-1: Federally Protected Waters of the United States.

The project applicant shall mitigate for impacts to waters of the United States resulting from project development by implementing the following measures:

a. The project applicant shall develop and implement a mitigation plan to address protection of wetland features retained onsite and compensate for unavoidable loss of wetlands. Compensation shall ensure through creation and/or enhancement of appropriate wetland habitats that there is no net loss of overall functions and values of the wetland habitat types adversely affected by the proposed project. The amount of wetland habitat to be included in the mitigation site shall be based on the value of the proposed compensation action and the nature of the effects, but a minimum of a 1:1 ratio of adversely affected habitat to mitigation habitat shall be provided. Compensation may be provided at a ratio of 1:1 of created habitat to filled habitat, while a higher mitigation ratio may be appropriate for mitigation through enhancement and a lower mitigation ratio may be appropriate for indirect effects to habitat preserved on-site.

b. The mitigation plan shall, at a minimum, identify the location of the mitigation site; specify habitat types and associated acreages to created or enhanced; establish specific success criteria, describe short- and long-term maintenance and management of the mitigation site and wetland habitats preserved onsite; and specify remedial measures to be undertaken if mitigation success criteria are not met.

c. Off-site mitigation shall be implemented within Placer County, or a suitable adjacent county, at a location that would provide at least equal-quality wetland habitat to that of the project site after implementation of the mitigation.

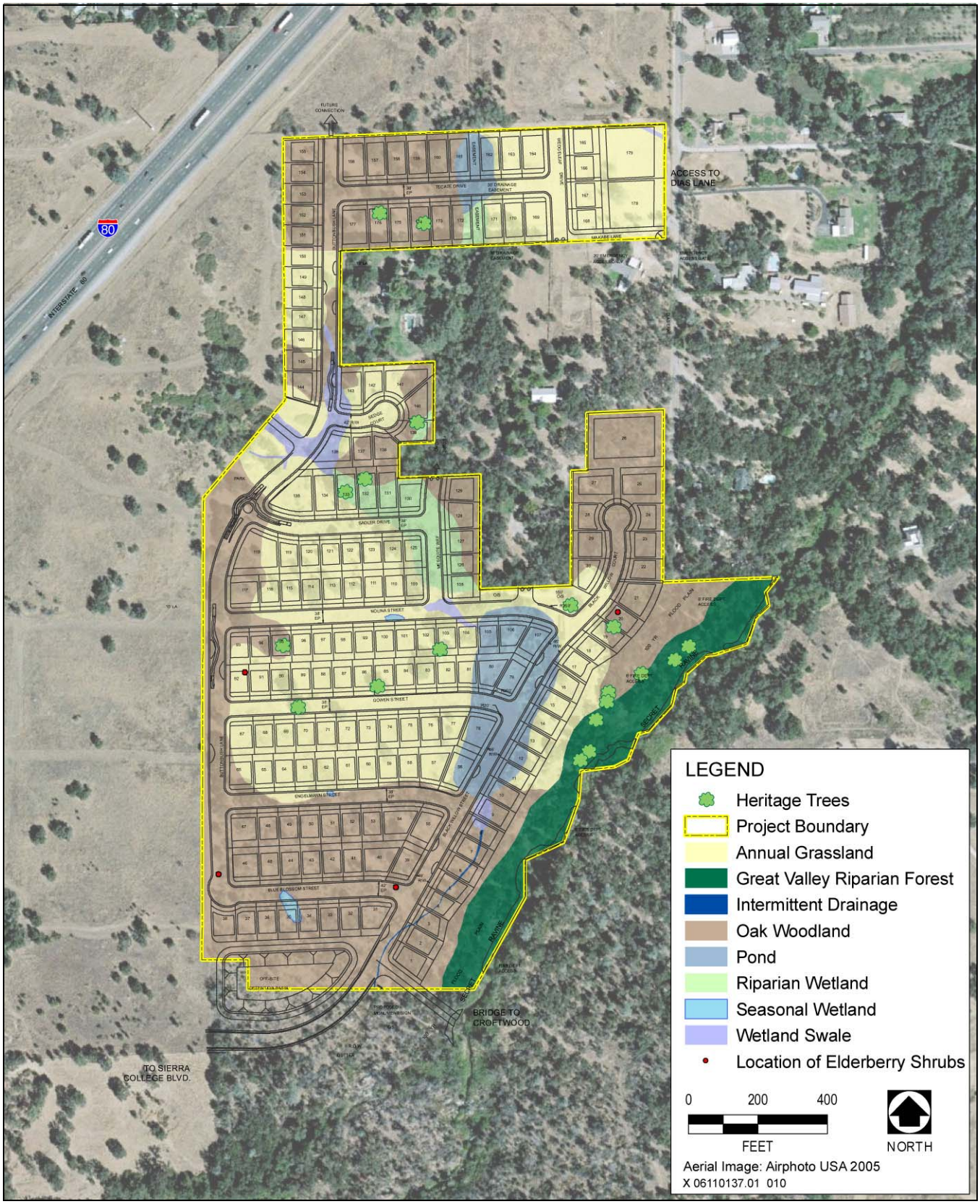
d. Long-term protection of the mitigation site and on-site preserved wetlands shall be ensured through fee title acquisition, conservation easement, or other suitable mechanisms. Long-term management of mitigation lands shall be ensured by establishing a management endowment or other suitable funding source.

e. The mitigation plan shall be reviewed and approved by the applicable resource agencies and applicable permits, including a Section 404 permit from the USACE and Section 401 Clean Water Certification from the RWQCB shall be obtained prior to project implementation.

f. As an alternative to creating and preserving wetland and waters, equivalent mitigation credits may be purchased in a mitigation bank for impacts on seasonal wetlands and waters of the United States. Purchase of credits in a mitigation bank shall be subject to approval by permitting agencies and the City. The project applicant shall prepare a mitigation plan that provides detailed information about the bank. Mitigation credits must be verified by the permitting agencies and the City prior to initiation of ground-disturbing activities on the project site.

Level of Significance after Mitigation

Implementation of Mitigation Measure 4.12-1 would reduce impacts to federally protected waters of the United States, including jurisdictional riparian and seasonal wetland habitats, to a **less-than-significant** level.



Source: RSC Engineering 2006, EDAW 2006

Proposed Site Plan and Biological Resources on the Project Site **Exhibit 4.12-3**

IMPACT 4.12-2 Impacts on Native Oak Trees and Heritage Trees – Short Term. *Implementation of the proposed project would result in loss of 843 native oak trees protected under the City of Rocklin's Tree Preservation Ordinance, including 11 heritage trees. This impact would be* ***significant****.*

Implementation of the proposed project would result in the removal of native oak trees, including heritage trees. The majority of oak woodland and annual grassland habitats that support native oak trees on the project site are within the development footprint (Exhibit 4.12-3). The removal of protected trees and the encroachment of construction activities into the protected zones of these trees are subject to the City of Rocklin's Oak Tree Preservation Ordinance, as defined by Chapter 17.77 of City of Rocklin Municipal Code. Protected trees include any oak native to the Rocklin area with a 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 project applicant has an approved oak tree removal permit to remove 191 trees that are dead/dying as a result of a wildfire onsite (City of Rocklin 2007).

Protected trees inventoried on the project site by Foothill Associates in 2002 and in 2007 include a total of 1,254 interior live oak, valley oak, and blue oak trees. Nineteen of these trees qualified for protection as heritage trees at the time of the survey (Foothill Associates 2007). Based on the proposed site plan, 843 of these native oak trees, including 11 of the heritage trees, would be removed as a result of project implementation. Removal of these trees would conflict with City of Rocklin General Plan policies and the Tree Preservation ordinance. The impact is **significant**.

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.

The project applicant shall implement the following measures to mitigate for the loss of protected trees:

Mitigation Measure 4.12-2: Loss of Native Oak and Heritage Trees - Short Term.

The total trunk diameter inches to be removed by the project was calculated during the 2007 tree survey to be 10,651 inches. This number of total inches will be used to implement the following measures to mitigate for the loss of protected trees:

- Prior to the initiation of site grading activities, the project shall obtain an oak tree removal permit from the City of Rocklin;
- The project applicant shall develop and implement a mitigation plan that will satisfy the City of Rocklin's required mitigation criteria; the mitigation plan shall be developed according to the requirements of the Rocklin Oak Tree Preservation Ordinance, including:
    - On-site mitigation through native oak tree replacement is the preferred mitigation method based on the City's ordinance;
    - The mitigation plan for the replacement of protected trees that will be removed shall be calculated per the tree replacement formulas from the City of Rocklin Oak Tree Preservation Guidelines;
    - The ideal age and size of a replacement tree shall be as specified in the City's ordinance;
    - Transplanted trees, whether from on the site or off-site, may be accepted as replacement trees, but shall be given a discounted value, as specified in the City's ordinance, based on anticipated survival rates, as compared with nursery stock. The discounted value specified in the City's ordinance shall be reviewed from time to time;

- Any replacement tree, including a transplanted tree, which dies within five years of being planted must be replaced on a one-to-one basis;

- Where mitigation formulas use percentages, results will always be rounded up to the next whole number percentage. (Ordinance 676, Section 8 (in part)).

- The project applicant shall provide maintenance and monitoring for replacement trees according to the City of Rocklin's permit conditions; and

- Payment of an in-lieu fee per tree into the City of Rocklin's Tree Preservation Fund may be considered as an alternative mitigation measure.

Level of Significance after Mitigation

With the implementation of the above mitigation measures, the trees removed with site development would be replaced, and this replacement would be 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 4.12-3 Loss of Native Oak and Heritage Trees - Long Term. *Implementation of the proposed project would result in the removal of all of 843 native oak trees on the site, including 11 heritage trees. This impact would be considered* ***potentially significant*** *in the long-term.*

As identified in Impact 4.12-2, implementation of the proposed project would result in the removal of native oak trees, including heritage trees. This impact is considered not only in the short term, as in Impact 4.12-2, but also in the long term. Based on the native oak tree surveys conducted for the site, 843 native oak trees would be removed from the site with project implementation, including 11 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 4.12-3: Loss of Native Oak and Heritage Trees - Long Term.

- Implement Mitigation Measure 4.12-2: Loss of Native Oak and Heritage Trees.

Level of Significance after Mitigation

With the implementation of Mitigation Measure 4.12-2, assuming the long-term success of the replacement trees, the trees removed with site development would be replaced, and this replacement would be consistent with the City's Oak Tree Preservation Ordinance. This impact would be reduced to a **less-than-significant** level with implementation of this mitigation in the long term once replanted trees have become established and mature.

IMPACT 4.12-4 Impacts on Sensitive Natural Communities, including Oak Woodland. *Implementation of the proposed project would result in loss of nearly 5 acres of waters of the United States and approximately 20 acres of oak woodland. This impact would be* ***significant****.*

The project site supports several sensitive natural communities, including Great Valley mixed riparian forest, waters of the United States, and oak woodland.

Impacts on the Great Valley mixed riparian forest along Secret Ravine would be avoided by a project set-back from the riparian corridor.

Implementation of the proposed project would result in loss of nearly 5 acres of waters of the United States, including wetlands, and 20 acres of oak woodland that lies within the development footprint.

Impacts on waters of the United States are described above under Impact 4.12-1, and impacts to oak trees are described above under Impact 4.12-2. These impacts would be **significant**.

Mitigation Measure 4.12-4: Impacts on Sensitive Natural Communities, including Oak Woodland.

- Implement Mitigation Measures 4.12-1 and 4.12-2.

Level of Significance after Mitigation

Please refer to the discussion of impacts and mitigation under Impact 4.12-1 and 4.12-2. Implementation of Mitigation Measures 4.12-1 and 4.12-2 would mitigate impacts to sensitive natural communities, including riparian habitat, seasonal wetland habitat, and oak woodlands to a **less-than-significant** level. The impact is considered **less than significant** following mitigation.

IMPACT 4.12-5 Impacts on Valley Elderberry Longhorn Beetle. *Implementation of the proposed project could result in loss of up to 35 blue elderberry shrubs, which provide potential habitat for the valley elderberry longhorn beetle. This impact is* ***potentially significant****.*

The project site supports a total of 46 elderberry shrubs in nine clumps scattered throughout the site. Most of the clumps are in the southern portion of the site, and a total 35 shrubs are within the development footprint (Exhibit 4.12-3). Although none of the shrubs on-site displayed exit holes characteristic of beetle habitation, use of this plant 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.

The USACE consulted with the U.S. Fish and Wildlife Service (Service), regarding potential effects to federally listed species. This consultation resulted in a Biological Opinion issued on June 1, 2007. The Service has determined that the proposed project is likely to adversely affect valley elderberry longhorn beetle and can be appended to the Service's *Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle* (Programmatic Consultation) (Service File number 1-1-96-F-0066). The Biological Opinion authorized incidental take and stipulated required mitigation measures.

Loss of elderberry shrubs resulting from implementation of the proposed project is considered a **potentially significant** impact to valley elderberry longhorn beetle.

Mitigation Measure 4.12-5: Valley Elderberry Longhorn Beetle.

The project applicant shall comply with the terms and conditions of the Biological Opinion issued by USFWS on June 1, 2007:

a. Elderberry shrubs that are not within the footprint of proposed residential lots or street alignments shall be preserved in place. A minimum of a 20-foot buffer from the dripline of each retained shrub shall be established to ensure that beetles that may be utilizing the shrubs are not adversely affected. All buffers shall be marked with brightly colored flags or fencing and shall be maintained until project construction is complete.

b. The 35 elderberry shrubs located onsite will be transplanted to a Service-approved valley elderberry longhorn beetle conservation bank in accordance with the Service's 1999 Conservation Guidelines.

c. The project applicant will purchase credits sufficient to plant 62 elderberry shrub seedlings and 62 associated riparian native species at a Service-approved valley elderberry longhorn beetle conservation bank. These numbers are the proposed compensation ratios in accordance with the Service's 1999 Conservation Guidelines.

e. The created beetle habitat will be monitored in accordance with the Service's 1999 Conservation Guidelines.

Level of Significance after Mitigation

Implementation of Mitigation Measure 4.12-5 would reduce impacts on the valley elderberry longhorn beetle to a **less-than-significant** level by avoiding impacts to elderberry shrubs to be retained onsite and compensating for unavoidable adverse effects through creation of replacement habitat.

IMPACT 4.12-6 Impacts on Special-Status Fish Species. *Implementation of the proposed project could result in degradation of habitat for special-status fish within Secret Ravine. This impact would be* ***potentially significant****.*

Central Valley fall-/late-fall-run Chinook salmon Evolutionary Significant Unit (ESU) and Central Valley steelhead ESU are known to occur within Secret Ravine. (An ESU is a distinctive group of Pacific salmon or steelhead trout.) Both of these species are anadromous and spend various life stages in Secret Ravine. Within the project site, Secret Ravine is designated as critical habitat for Central Valley steelhead. Critical habitat includes the river water, river bottom, and adjacent riparian zone (i.e., those adjacent terrestrial areas that directly affect a freshwater aquatic ecosystem). Urban development is known to contribute to the degradation of salmonid habitat through several mechanisms. Urban stormwater can deliver pollutants in quantities that negatively impact the stream ecosystem. Common byproducts of urbanization such as pesticides, hydrocarbons, excess nutrients from fertilizers, and other pollutants in urban environments can create high contaminant levels and excessive nutrients. Such conditions can support algal blooms, which in turn lead to low dissolved oxygen concentrations and additional sedimentation.

Within Secret Ravine, the decline of salmonid runs have been attributed to urban encroachment, pollution, reduced access, altered flows and channel morphology, and land use alterations that lead to increased sedimentation and toxicity (Ayres et al. 2003). Development of the proposed project could release sediment and contaminants that could adversely affect water quality. Water quality degradation at the project site could adversely affect Chinook salmon and steelhead if substantial amounts of sediment or contaminants are carried into Secret Ravine. These impacts would be **significant**.

Mitigation Measure 4.12-6: Impacts on Special-Status Fish Species.

- Implement Mitigation Measures 4.10-3 and 4.10-4 identified in Section 4.10, "Hydrology and Water Quality," of this EIR.

Level of Significance after Mitigation

Mitigation measures identified in Section 4.10, "Hydrology and Water Quality," of this EIR are expected to reduce this impact to a **less-than-significant** level by ensuring that stormwater discharges and project construction would not result in substantial increased sediment or pollutant loads in nearby waterways.

IMPACT 4.12-7 Impacts on California Red-Legged Frog. *California red-legged frog is unlikely to occur on or in the vicinity of the project site and would not be affected by the proposed project. This impact would be* ***less than significant****.*

The proposed project is not likely to adversely affect California red-legged frog. The distance to known extant populations of California red-legged frogs, extirpation of the species from the valley floor, and limited number of drainages in the Sierra Nevada known to support the species make the occurrence of the frog and its potential use of the site unlikely. I-80 presents a physical barrier to the northwest; therefore, the upland habitat on-site would not be used as migration corridor between the project site and areas of potential habitat to the north. 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. Impacts on California red-legged frog are considered **less than significant**.

Mitigation Measure 4.12-7: Impacts on California Red-Legged Frog.

No mitigation is necessary.

IMPACT 4.12-8 Impacts on Western Pond Turtle. *Implementation of the proposed project could result in injury or death of western pond turtles if present in aquatic features to be filled on the project site. This impact would be* ***potentially significant****.*

The project site contains several features that provide suitable habitat for western pond turtle, including aquatic habitat provided by the ponds and Secret Ravine and suitable upland habitat adjacent to these aquatic features. Pond turtles not been documented on the project site, but are known to occur within Croftwood Lake, 700 feet to the south, and could occur in ponds on the site. Impacts on the western pond turtle have been minimized by avoiding development of the Secret Ravine corridor. However, loss of the ponds on the site could have a substantial adverse effect on the local pond turtle population if a large number of turtles are present in these areas during project implementation and are harmed or killed by construction activities. Impacts on western pond turtle are considered **potentially significant**.

Mitigation Measure 4.12-8: Western Pond Turtle.

The following shall be implemented to mitigate adverse effects to western pond turtle potentially resulting from the proposed project:

- To minimize potential injury or death of pond turtles during project construction, a qualified biologist approved by the City shall conduct surveys in aquatic habitats to be dewatered and/or filled during project construction or grading of aquatic habitat.

- Surveys shall be conducted immediately after any dewatering and before any fill of aquatic habitat. If no pond turtles are found, no mitigation will be required. If pond turtles are found, the biologist shall capture them and move them to suitable habitat in Secret Ravine.

Level of Significance after Mitigation

Implementation of Mitigation Measure 4.12-8 would reduce impacts on the western pond turtle to a **less-than-significant** level by minimizing potential for pond turtles to be harmed or killed during construction activities and avoiding a substantial adverse effect to the local population.

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. 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, yellow warbler, yellow-breasted chat, and loggerhead shrike. Common raptors and migratory birds could also nest on the site. Tricolored blackbird is unlikely to occur. 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 Impacts on California Black Rail. *Implementation of the proposed project could result in the disturbance of habitat and loss of active nests of California black rail. This impact would be* ***significant****.*

Freshwater marshes associated with the pond and wetland swales provide potentially suitable habitat for California Black Rail, a state threatened and fully protected species under CESA. Active nests of migratory birds are also protected by California Fish and Game Code Section 3503.5 and by the MBTA. Removal or disturbance of the active nests of California black rail could result from project implementation. Disturbance of nesting pairs could result in nest abandonment and loss of active nests. Loss of active nests could be considered a violation of the MBTA and Fish and Game Code, and a significant impact under CEQA because it would result in an adverse effect either directly or through habitat modifications on a special-status species. Loss of nests of special-status species could result in substantial adverse effects to local populations of the affected species. Therefore, impacts on California black rail would be considered **significant**.

Mitigation Measure 4.12-11: Impacts on California Black Rail.

The following shall be implemented to mitigate adverse effects to California black rail that may result from the proposed project:

a. Prior to the start of construction, surveys for California black rail shall be conducted by a qualified biologist experienced with this species. Surveys shall be conducted to determine presence and should be conducted during breeding season (late February through late July). Surveys shall be conducted during peak calling times (one half hour before dawn until three hours after, and three hours before sunset until one half hour after) using playback of taped breeding calls. The surveys shall cover all areas of suitable nesting habitat within 500 feet of project activity, and shall concentrate on all shallow water areas (less than 3cm in depth) or muddy areas with a dense cover of emergent vegetation. Trampling through the marsh vegetation shall be minimized to avoid potential for destruction of nests. Surveys shall be conducted within 14 days prior to commencement of project activity.

b. If black rail is not detected after three site visits (including at least one morning and one evening survey), then no further mitigation shall be required.

c. If black rail is detected, impacts shall be avoided by establishing appropriate buffers. No project activity shall commence within the buffer area until a qualified biologist confirms that the species has evacuated the area. The size of the buffer shall be determined by the biologist and confirmed by DFG; buffer size may vary, depending on the nest location, nest stage, and construction activity.

d. If black rail is detected, mitigation for loss of federally protected waters of the United States (Mitigation Measure 4.12-1) shall include, at a minimum ratio of 1:1, wetland habitat suitable for use by and within the Sierra Foothill range of the species.

Level of Significance after Mitigation

Implementation of the above described mitigation measure would reduce the impacts to special-status birds a **less-than-significant** level by avoiding habitat removal during the nesting season and implementing buffers adequate to avoid loss of active nests and potential substantial adverse effects to local populations.