

## **3.4 BIOLOGICAL RESOURCES**



This section describes the biological resources present at the project site, including a discussion of the special-status species and sensitive habitats potentially occurring in the area. This section analyzes impacts that could occur to biological resources due to project implementation and includes appropriate mitigation measures to reduce or avoid these impacts. The analysis of biological resources presented in this section is based on a review of the project description (Section 2.0), data collected from a reconnaissance-level survey, available literature from federal, state, and local agencies, and the Biological Inventory Report and Supplemental Biological Inventory Information prepared for this project (**Appendix 3.4-A**; EcoSynthesis 2009a, 2011). Related discussions are found in Section 3.9, Hydrology and Water Quality, and Section 3.10, Land Use.

### 3.4.1 SETTING

#### REGIONAL SETTING

The region surrounding the project site is low-density rural residential development and agricultural (grazing) lands. Prior to European settlement, the region probably supported nearly unbroken oak and ponderosa pine forest, with some scrub habitat on the steep rocky slopes above the Bear River. The Bear River rises on the west side of the Sierra Nevada just below Lake Spaulding at 5,500 feet above mean sea level (msl). From there, it flows southwest some 65 miles to its confluence with the Feather River, draining portions of Nevada, Placer, Sutter, and Yuba counties. The 292-square-mile Bear River watershed includes over 990 miles of streams, creeks, and rivers, and reaches 20 miles across at its greatest width. It can be divided into three major reaches. The project site is within the Middle Bear reach. The Middle Bear watershed is largely blue oak woodlands, blue oak-foothill pine, and mixed hardwood/conifer forests. The Bear River canyon from State Route 174 to the west of State Route 49 may provide the best regional link between the upland conifer forests and lowland oak forests, critical for wintering deer herds and other migrating wildlife (Yardas and Eberhart 2005).

#### LOCAL SETTING

The project site features varied topography, including rolling hills and somewhat flatter terrain near the center of the property. Elevations within the site range from approximately 1,300 feet above msl along its southern portion near the Bear River to approximately 1,700 feet above msl at the site's southeastern corner at the peak of a steep hill. The Bear River flows east to west at the southern boundary of the project site. One main unnamed Bear River tributary, flowing from the northeast corner through the central portion of the project site, is dammed, creating a large pond on site. A smaller Bear River tributary also flows into the main tributary just north of the pond. Both tributaries support woody riparian and some herbaceous wetland plants. Smaller drainages are located throughout the project site. Three small areas of mixed riparian and herbaceous wetland vegetation, which are supported by springs located in rocky slopes, are found adjoining the Bear River in the southeastern part of the project site. Additionally, two sections of Nevada Irrigation District (NID) irrigation canals traverse the property: the Weeks Canal crosses the northwestern portion of the project site and the Magnolia Ditch crosses the eastern portion of the project site (**Figure 3.4-1a** and **Figure 3.4-1b**).

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#### VEGETATIVE COMMUNITIES

A reconnaissance-level field survey of the project site was conducted on May 25, 2011, by a PMC biologist to assess habitat types and current site conditions. A habitat layer was created using the Geographic Information System (GIS) ArcView program based on aerial photograph interpretation and knowledge from the reconnaissance-level survey (**Figures 3.4-1a** and **b**). The main project site area was previously surveyed and mapped by EcoSynthesis in 2009 (**Appendix 3.4-A**). The areas mapped previously by EcoSynthesis were used as a base layer; however, habitat boundaries were adjusted to match observations of current site conditions, and habitat types were correlated to the wildlife habitat types in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). Prior to conducting the site visit, the following reports were reviewed and then verified in the field:

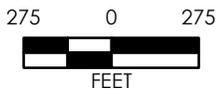
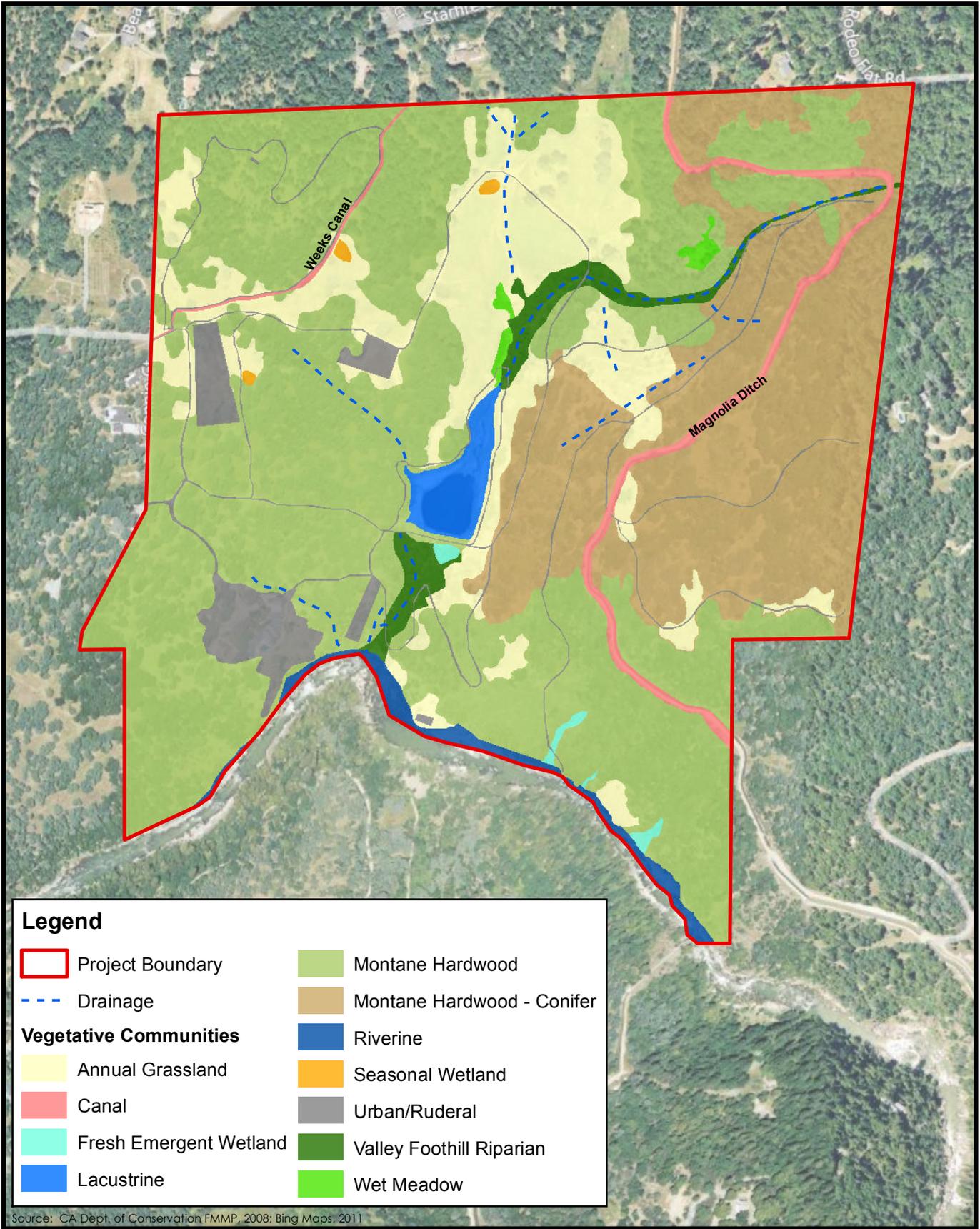
- Rincon del Rio Project Biological Inventory (EcoSynthesis 2009a); and
- Habitat Management Plan for the Rincon del Rio Project (EcoSynthesis 2009b).

Vegetative communities are assemblages of plant species that occur in the same area and which are defined by species composition and relative abundance. Descriptions of the vegetative communities found within the project site are discussed below. **Table 3.4-1** outlines the acreages of each vegetative community found on the project site including Proposed Rincon Way improvements. The property features many amenities including a chicken coop, picnic area, golf driving range, and volleyball court, among others. The project site also has numerous all-terrain vehicle (ATV) trails located throughout the property (additional trails to those mapped may be present). Although the discussion below describes the species composition typically found in these natural communities, the value of these resources to wildlife has been diminished due to the development of the project site for recreational uses (mainly the extensive ATV trails throughout the project site).

**TABLE 3.4-1**  
**VEGETATIVE COMMUNITIES WITHIN THE PROJECT SITE**

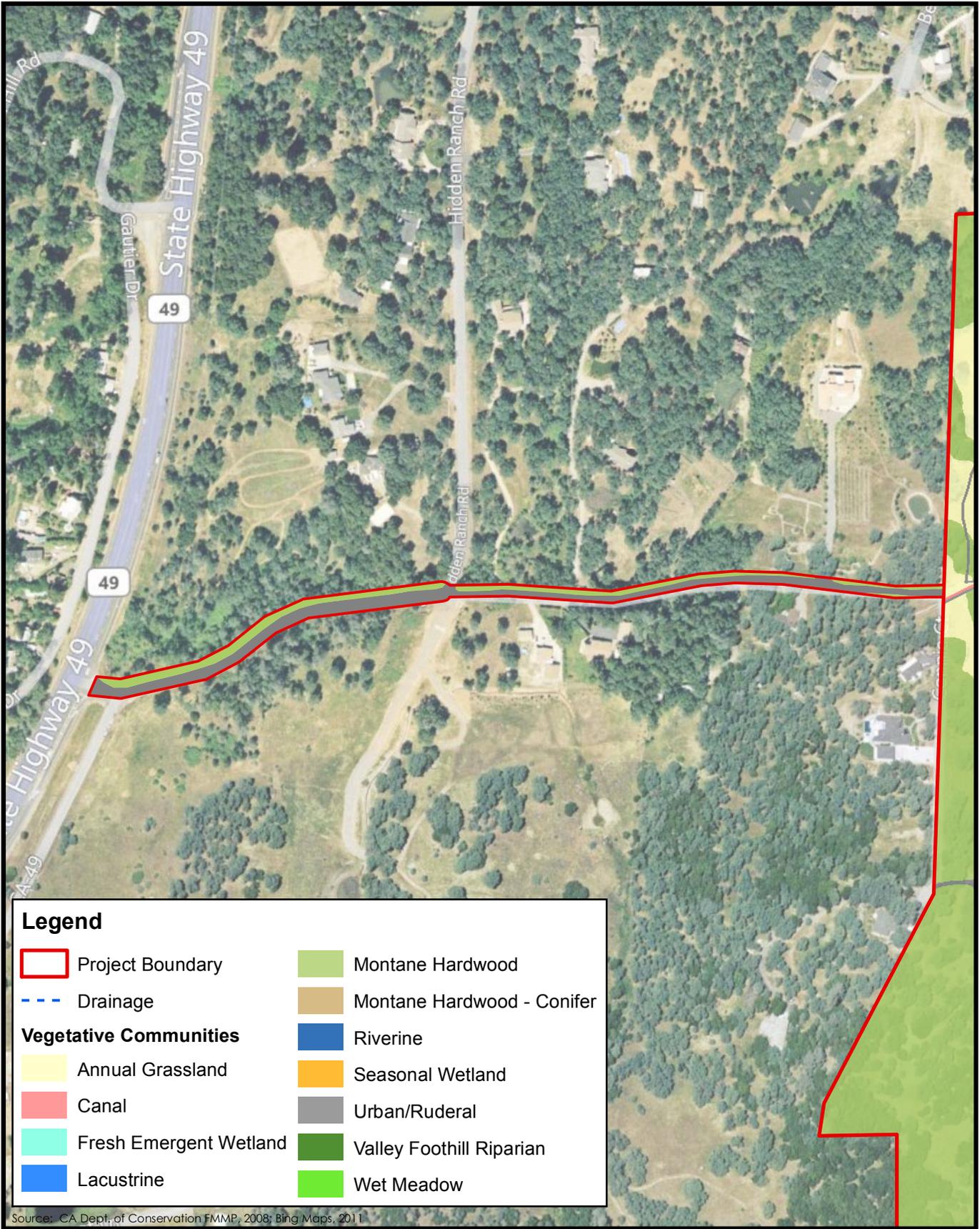
Vegetative Community	Area (Acres)	Percentage of the Project Site
Montane Hardwood-Conifer	51.4	24%
Montane Hardwood1	106.4	50%
Valley Foothill Riparian	4.5	2%
Annual Grassland	30.5	14%
Urban/Ruderal	9.6	4%
Seasonal Wetland	0.3	< 1%
Fresh Emergent Wetland	0.6	< 1%
Lacustrine (Pond)	3.0	1%
Wet Meadow	0.8	< 1%
Riverine (Bear River)	3.0	1%
Canal	4.3	2%
<b>Total</b>	<b>215</b>	<b>100%</b>

*Note: Portions of the montane hardwood habitat (especially adjacent to the Bear River) contain inclusions of montane chaparral. Source: Initially mapped by EcoSynthesis (2009a) and revised by PMC (2011).*



**Figure 3.4-1A**  
Vegetative Communities within the Project Site





**Figure 3.4-1B**  
Vegetative Communities within the Project Site



### Montane Hardwood-Conifer

A typical montane hardwood habitat is composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer (Anderson 1988). On the project site, the dominant trees are ponderosa pine (*Pinus ponderosa*) and California black oak (*Quercus kelloggii*). Other canopy trees are not present in any significant abundance throughout most of the mapped pine forest area (EcoSynthesis 2009a). Gray pine (*Pinus sabiniana*) is scattered throughout this habitat type. Understory shrubs vary depending upon aspect and include California buckeye (*Aesculus californica*), hoary coffeeberry (*Rhamnus tomentella*), coyote brush (*Baccharis pilularis*), deer brush (*Ceanothus integerrimus*), and poison-oak (*Toxicodendron diversilobum*). Toward the higher elevations of the project site, whiteleaf manzanita (*Arctostaphylos viscida*) and ceanothus (*Ceanothus* spp.) occur in the understory (EcoSynthesis 2009a).

Wildlife species characteristic of the montane hardwood habitat include disseminators of acorns, such as western scrub jay (*Aphelocoma californica*), Steller's jay (*Cyanocitta stelleri*), acorn woodpecker (*Melanerpes formicivorus*), and western gray squirrel (*Sciurus griseus*), plus those that utilize acorns as a major food source such as wild turkey (*Meleagris gallopavo*), mountain quail (*Oreortyx pictus*), California ground squirrel (*Spermophilus beecheyi*), dusky-footed woodrat (*Neotoma fuscipes*), black bear (*Ursus americanus*), and black-tail deer (*Odocoileus hemionus*). Many amphibians and reptiles are found on the forest floor in the montane hardwood; among them are western fence lizard (*Sceloporus occidentalis*), sagebrush lizard (*Sceloporus vandenburgianus*), rubber boa (*Charina bottae*), western rattlesnake (*Crotalus viridis*), and sharp-tailed snake (*Contia tenuis*) (Anderson 1988).

### Montane Hardwood

Montane hardwood is typically composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer (McDonald 1988). Snags and downed woody material generally are sparse throughout the montane hardwood habitat. For the project site, these areas are dominated by California black oak mixed with ponderosa pine and support a whiteleaf manzanita and/or ceanothus in the understory. Canyon live oak (*Quercus chrysolepis*) is scattered in the overstory among ponderosa pine, Coulter pine (*Pinus coulteri*), and white fir (*Abies concolor*). Knobcone pine (*Pinus attenuata*), gray pine, and Oregon white oak (*Quercus garryana*) are abundant at lower elevations. Understory vegetation is mostly scattered woody shrubs (i.e., manzanita (*Arctostaphylos* spp.)), birchleaf mountain mahogany (*Cercocarpus montanus* var. *glaber*), poison-oak, and a few forbs (McDonald 1988). Wildlife species found in montane hardwood-conifer also occur in montane hardwood.

### Valley Foothill Riparian

Valley foothill riparian habitats are found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains (Grenfell 1988a). They are generally associated with low velocity flows, floodplains, and gentle topography. Valley foothill riparian habitat is generally found in the valley and foothill regions of California along low-gradient streams. Species dominating the overstory of valley foothill riparian habitat include Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*). Typical subcanopy trees are white alder (*Alnus rhombifolia*), box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Common understory shrubs include wild grape (*Vitis californica*), wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), poison-oak, button bush (*Cephalanthus occidentalis*), and willows (*Salix* spp.). The herbaceous layer consists

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of sedges (*Cyperus* spp.), rushes (*Juncus* spp.), miner's lettuce (*Claytonia perfoliata*), poison hemlock (*Conium maculatum*), hoary nettle (*Urtica dioica holosericea*), and various grasses. Generally, the understory is impenetrable and includes fallen limbs and other debris (Grenfell 1988a).

On the project site, the riparian habitat occurs along the entire length of the main tributary in the central portion of the project site, including the lower extremity of the small wetland tributary that flows through the large pasture (EcoSynthesis 2009a). The floodplain of the main tributary (which flows into and out of the large pond) supports habitat dominated by white alder, Arroyo willow (*Salix lasiolepis*), and red willow (*S. laevigata*). The riparian vegetation understory varies from absent to dominated by freshwater emergent wetland species to dominated heavily by Armenian blackberry (*Rubus armeniacus*). Valley oaks, including several of landmark size, occur at the fringe of, or mixed with, the alder-willow riparian woodland. The limit of the foothill riparian community was mapped to include all of the riparian-associated valley oaks (EcoSynthesis 2009a). The mapping of the riparian habitat was expanded by PMC to include the area surrounding the main tributary in the central portion of the project site.

Valley foothill riparian habitats provide food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife (Grenfell 1988a). Many amphibians and reptiles occur in lowland riparian systems (Grenfell 1988a). Bird species that may occur in riparian habitat include acorn woodpecker, belted kingfisher (*Megaceryle alcyon*), northern flicker (*Colaptes auratus*), tree swallow (*Tachycineta bicolor*), and bushtit (*Psaltriparus minimus*). Mammal species may include opossum (*Didelphis virginiana*), desert cottontail (*Sylvilagus audubonii*), beaver (*Castor canadensis*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and black-tailed deer (Grenfell 1988a).

#### Annual Grasslands

The original grassland ecosystem in Nevada County was most likely an open oak savanna dominated by native bunchgrasses (Beedy and Brussard 2002). Upon European settlement, non-native annual grasses became widely distributed throughout California (Beedy and Brussard 2002). Dry annual grasslands still support many native plants, but irrigated pastures usually do not. Native species do not compete well with exotic pasture grasses. On the project site, annual grassland occurs as one large area north of the pond, which is used as pasture for cattle, as well as in several much smaller patches within the woodland areas. The large pasture supports a mixture of annual and perennial non-native grasses: bromes (*Bromus* sp.), wild oat (*Avena fatua*), orchard grass (*Dactylis glomerata*), tall fescue (*Festuca arundinacea*), blue wild-rye (*Elymus glaucus*), and dog-tail grass (*Cynosurus cristatus*) (EcoSynthesis 2009a).

Many wildlife species use annual grasslands for foraging and/or breeding. Characteristic reptiles that breed in annual grasslands include the western fence lizard, common garter snake (*Thamnophis sirtalis*), and western rattlesnake. Common bird species observed or expected to occur in this vegetation type include western scrub jay, northern mockingbird (*Mimus polyglottos*), killdeer (*Charadrius vociferous*), and mourning dove (*Zenaida macroura*). This vegetation type also provides important foraging habitat for several raptor species. Mammals typically found in this vegetation type include the black-tailed jackrabbit (*Lepus californicus*), desert cottontail, California ground squirrel, Botta's pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotis*), California vole (*Microtus californicus*), and coyote (Kie 2005).

#### Montane Chaparral

Montane chaparral varies markedly throughout California. The growth form of chaparral species can vary from tree-like (up to 10 feet) to prostrate (Risser and Fry 1988). When mature, it is often impenetrable to large mammals. Montane chaparral is characterized by evergreen species; however, deciduous or partially deciduous species may also be present. Conifer and oak trees may occur in sparse stands or as scattered individuals within the chaparral type. Montane chaparral within the project site has not been mapped. It includes small inclusions in montane hardwood and montane hardwood-conifer, in addition to small portions of the south-facing steep rocky slopes above the Bear River, which supports a soft-leaved scrub dominated by poison-oak, coyote brush, and coffeeberry. Occasional patches of California buckeye and scrub oak (*Quercus berberidifolia*) occur where there are, respectively, either deeper or rockier soils. This scrub occurs as a mosaic with annual grassland, which significantly includes a greater component of native species than is the case in the pasture and woodland areas (EcoSynthesis 2009a).

Wildlife species found within montane chaparral are similar to those found in the surrounding vegetative communities.

#### Urban/Ruderal

The California Wildlife Habitat Relationships (CWHR) classifies urban habitat into five different vegetation types: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. On the project site, the urban areas consist of the developed land on the property including the existing home, driveway, and facilities. Facilities on the project site include a chicken coop, picnic area, bocce ball court, volley ball court, ATV trails, and golf driving range, as well as gazebos. The ATV trails are maintained by spraying herbicides (to control poison-oak) as well as removing downed woody debris. Lawns are composed of a variety of grasses, maintained at a uniform height with continuous ground cover through irrigation and fertilization. Shrub cover refers to areas commonly landscaped and maintained with hedges. Vegetation in these areas consists primarily of introduced ornamental trees and shrubs and manicured lawns. Ruderal (roadside) communities occur in areas of disturbances such as along roadsides, trails, parking lots, etc. These communities are subjected to ongoing or past disturbances (e.g., vehicle activities, mountain bikes, mowing). Ruderal habitat in disturbed areas supports a diverse weedy flora including clover (*Medicago sp.*), filaree (*Erodium sp.*), wild radish (*Raphanus sativus*), mustards (i.e., *Brassica nigra*), vetch (*Vicia spp.*), field bindweed (*Convolvulus arvensis*), milk thistle (*Silybum marianum*), perennial ryegrass (*Lolium perenne*), and wild oat. The project site includes ruderal vegetation along roadways and trails and within undeveloped areas.

A distinguishing characteristic of urban and ruderal habitats is the mixture of native and exotic plant species. Native and introduced animal species that are tolerant of human activities often thrive in urban and ruderal habitats. Birds and mammals that occur in these areas typically include introduced species adapted to human habitation, including rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*). Some native species persist in commercial development lands, including western toad (*Bufo boreas*), western fence lizard, Brewer's blackbird (*Euphagus cyanocephalus*), house finch (*Carpodacus mexicanus*), western scrub jay, and American crow (*Corvus brachyrhynchos*) (McBride and Reid 1988).

#### Aquatic Communities

Please note that a formal jurisdictional wetland delineation has not been conducted on the project site; therefore, the following findings are general in nature and subject to modification.

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#### Seasonal Wetland

Seasonal wetlands are defined by a hydrologic regime that is dominated by saturation rather than inundation. Seasonal wetlands inundate for short time periods following a storm event, but the primary hydrologic regime is one of saturation. Seasonal wetlands are relatively shallow bodies of water that pond for a short duration, support a low diversity of plant species, and tend to support species with a high tolerance for disturbance. Wetland plant species that are either low-growing, tenacious perennials that tolerate disturbance or annuals that tolerate seasonal wetness often colonize seasonal wetlands. This temporary pooling allows for hydrophytic vegetation to be the dominant vegetation in this area. Plant species may include perennial ryegrass, dense-flowered spike primrose (*Epilobium densiflorum*), curly dock (*Rumex crispus*), tall flatsedge (*Cyperus eragrostis*), barnyard grass (*Echinochloa crusgalli*), pale spikerush (*Eleocharis macrostachya*), and rushes (*Juncus* spp.). These areas were observed during the 2011 site visit by PMC. Typically, the seasonal wetlands within the project site were fed by seeps.

#### Fresh Emergent Wetland

Fresh emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots 6.6 feet tall (Kramer 1988). All emergent wetlands are flooded frequently, enough so that the roots of the vegetation are in an anaerobic environment. On the upper margins of this habitat, saturated or periodically flooded soils support several moist soil plant species including Baltic rush (*Juncus balticus*), redroot flatsedge (*Cyperus erythrorhizos*), nutgrass (*C. rotundus*), and on more alkali sites, saltgrass (*Distichlis spicata*). On wetter sites, common cattail (*Typha* spp.), bulrushes (*Scirpus* spp.), and arrowhead (*Sagittaria* spp.) are potential dominant species (Kramer 1988). The largest area of emergent wetland is found in the northeastern part of the project site. This may be partially or entirely supported by seepage from the Nevada Irrigation District (NID) canal, or it may be entirely supported by natural seepage. Three additional seep-supported wetland areas occur on the lower part of the rocky slopes near the Bear River (**Figure 3.4-1**).

Fresh emergent wetlands are key habitat for many species of water birds, amphibians, and some reptiles. Many species rely on fresh emergent wetlands for their entire life cycle. Slow-moving waters provide important resting and foraging habitats for migratory water birds such as the mallard (*Anas platyrhynchos*) and cinnamon teal (*A. cyanoptera*). Wetlands also provide habitat for the American coot (*Fulica americana*), great blue heron (*Ardea herodias*), great egret (*A. alba*), and black phoebe (*Sayornis nigricans*).

#### Wet Meadow

Meadow ecosystems are associated with seasonally moist to waterlogged soils in valleys, flats, gentle slopes, and filled-in lake basins in the higher elevations of Nevada County (Beedy and Brussard 2002). Wet meadows occur where water is at or near the surface most of the growing season, following spring runoff (Ratliff 1988). Wet meadows at all elevations generally have a simple structure consisting of a layer of herbaceous plants. Shrub or tree layers are usually absent or very sparse; however, they may be an important feature of the meadow edge. Several genera are common to wet meadows including bentgrass (*Agrostis* sp.), oatgrass (*Danthonia* sp.), rushes (*Juncus* sp.), willows (*Salix* sp.), and sedges (*Carex* sp., *Scirpus* sp.). Wet meadow occurs adjacent to part of the shore of the large pond and between the upland pasture and Valley foothill riparian (EcoSynthesis 2009a). The majority of the area of the herbaceous wetland is characterized by plants that are facultative indicator species (occurring equally commonly within and outside of wetlands) such as perennial ryegrass, curly dock, and common thistle (*Cirsium vulgare*). Small areas close to the drainages and to the shore of the pond would, by

themselves, be termed fresh emergent wetland on the basis of dominance by facultative-wetland and obligate species (almost always found in wetlands) including species like umbrella sedge (*Cyperus eragrostis*), rushes (*Juncus* spp.), and willow herb (*Epilobium glaberrimum*) (EcoSynthesis 2009a).

These ecosystems are the most botanically diverse in the Sierra Nevada, and they have high wildlife values because of their abundance of food and cover (Beedy and Brussard 2002). Black-tailed deer and elk (*Cervus canadensis*) may feed in wet meadows, seeking especially forbs and palatable grasses. Waterfowl, especially mallards, frequent streams flowing through wet meadows. Yellow-headed and red-winged blackbirds (*Xanthocephalus xanthocephalus*; *Agelaius phoeniceus*) occasionally nest in wet meadows with tall vegetation and with adequate water to discourage predators. The striped racer (*Masticophis lateralis*) is the common snake of wet meadows in the Sierra Nevada and Cascade Range. Various frog species are abundant in wet meadows throughout California (Ratliff 1988).

#### Riverine

Riverine habitat only includes the open water areas and areas below the ordinary high water mark. Riverine habitats are found contiguous to riparian, lacustrine and fresh emergent wetland habitats (Grenfell 1988b). Intermittent or continually running water distinguishes rivers and streams. A stream originates at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved oxygen will decrease and the bottom will change from rocky to muddy (Grenfell 1988b). Emergent vegetation grows along riverbanks, and duckweed (*Lemna* sp.) floats on the surface. The riverine habitat within the project site includes the Bear River as well as the smaller drainages found on the project site. The smaller drainages support smaller volumes of water. The drainages within the project site vary from perennial (the main tributary) to ephemeral or intermittent.

Riverine ecosystems support many birds, mammals, fish, amphibians, and reptiles and a high diversity of invertebrates that are important links in aquatic food chains (Beedy and Brussard 2002). Many insects including insect larvae inhabit fast and slow streams (Grenfell 1988b). Common wildlife species found among riverine habitat include gulls, terns, and raptor species that hunt over the open waters. The open water zones of large rivers provide resting and escape cover for many species of waterfowl. Near-shore waters provide food for waterfowl, herons, and shorebirds. Some of the more common mammals found in riverine habitats include river otter (*Lontra canadensis*), mink (*Neovison vison*), muskrat (*Ondatra zibethicus*), and beaver (Grenfell 1988b). Riverine ecosystems at lower elevations in Nevada County have been heavily impacted by hydraulic mining, dam construction, the introduction of exotic fishes and amphibians, and poor water quality (Beedy and Brussard 2002).

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#### Lacustrine (Pond)

Lacustrine ecosystems include natural ponds and lakes and man-made features such as reservoirs. In Nevada County, most man-made reservoirs and ponds exist below 5,000 feet on the west slope (Beedy and Brussard 2002). Lacustrine habitats are inland depressions or dammed riverine channels containing standing water (Grenfell 1988c). As sedimentation and accumulation of organic matter increases toward the shore, floating rooted aquatic plants such as water lilies (*Nymphaea* spp.) and smartweed (*Polygonum amphibium*) often occur (Grenfell 1988c). The lacustrine habitat on the project site consists of the pond created by damming the unnamed main tributary.

Man-made reservoirs and ponds are attractive to waterfowl, raptors, swallows, bats, and many other wildlife species. Suspended organisms such as plankton are found in the open water of lacustrine habitats. Most permanent lacustrine systems support fish life; intermittent types usually do not. Floating plants offer food and support for numerous herbivorous animals that feed both on plankton and floating plants (Grenfell 1988c). Several geese (*Anser* spp.) and mallards were observed in the pond.

#### SPECIAL-STATUS SPECIES

Special-status species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area or across their native habitat (locally, regionally, or nationally) and are identified by a state and/or federal resource agency as such. These agencies include governmental agencies such as the California Department of Fish and Game (CDFG), the United States Fish and Wildlife Service (USFWS), or private organizations such as the California Native Plant Society (CNPS). The degree to which a species is at risk of extinction is the limiting factor on a species' status designation. Risk factors to a species' persistence or population's persistence include habitat loss, increased mortality factors (take, electrocution, etc.), invasive species, and environmental toxins. In context of environmental review, special-status species are defined by the following codes:

- Listed, proposed, or candidates for listing under the federal Endangered Species Act (FESA) (50 Code of Federal Regulations [CFR] 17.11 – listed; 61 Federal Register [FR] 7591, February 28, 1996 candidates);
- Listed or proposed for listing under the California Endangered Species Act (CESA) (Fish and Game Code [FGC] 1992 Section 2050 et seq.; 14 California Code of Regulations [CCR] Section 670.1 et seq.);
- Designated as Species of Special Concern by CDFG;
- Designated as Fully Protected by CDFG (FGC Sections 3511, 4700, 5050, 5515); and
- Species that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) (14 CCR Section 15380).

A special-status species was determined to have the potential to occur on the project site if its documented geographic range from the literature and database searches includes the project vicinity and if suitable habitat for the species was identified within or near the project site. The CDFG's California Natural Diversity Database (CNDDDB) was queried for special-status species within the Lake Combie, California, United States Geological Survey (USGS) 7.5-minute quadrangle and the surrounding quadrangles (Auburn, Gold Hill, Chicago Park, Colfax, Greenwood, Grass Valley, Rough and Ready, and Wolf) (CDFG 2011a, 2011b).

Locations of special-status species occurrences as recorded in the CNDDDB within a 1-mile radius of the project site are shown in **Figure 3.4-2**. The CNDDDB occurrences frequently are shown as a large geographic area due to imprecise data; therefore, although a CNDDDB polygon may be present within the project site, the entire area intersecting the polygon may not support the species. Furthermore, in some cases, the habitat where the species occurred has been developed or modified since the occurrence was reported, and the species may no longer be present. Additionally, special-status species may occur in an area where it was not previously documented if suitable habitat is present.

The CNPS online inventory was also queried for rare or endangered plants within the quadrangles listed above (CNPS 2011). In addition, the USFWS list for the quadrangles listed above was consulted for federally listed or candidate species that could potentially be affected by the project (USFWS 2011a). **Appendix 3.4-A** presents the results of the CNDDDB, CNPS, and USFWS queries. These species are listed and evaluated individually in **Appendix 3.4-A** to determine if they should be considered in the impact analysis.

A species is considered in the impact analysis based on the species' habitat requirements within the project site, previously recorded occurrences of the species within the vicinity of the project site, and professional opinion. No species-specific or protocol-level surveys for special-status species were conducted. Although the analysis conducted by EcoSynthesis (2009a, 2011) was considered in the special-status species assessment, an independent evaluation of a species' potential to occur on the project site or to be affected by the proposed project was conducted. **Table 3.4-2** below shows the habitat types within the project site and the special-status species associated with those habitats.

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**TABLE 3.4-2  
HABITAT TYPES WITHIN THE PROJECT SITE AND SPECIAL-STATUS SPECIES ASSOCIATED WITH THOSE HABITAT TYPES**

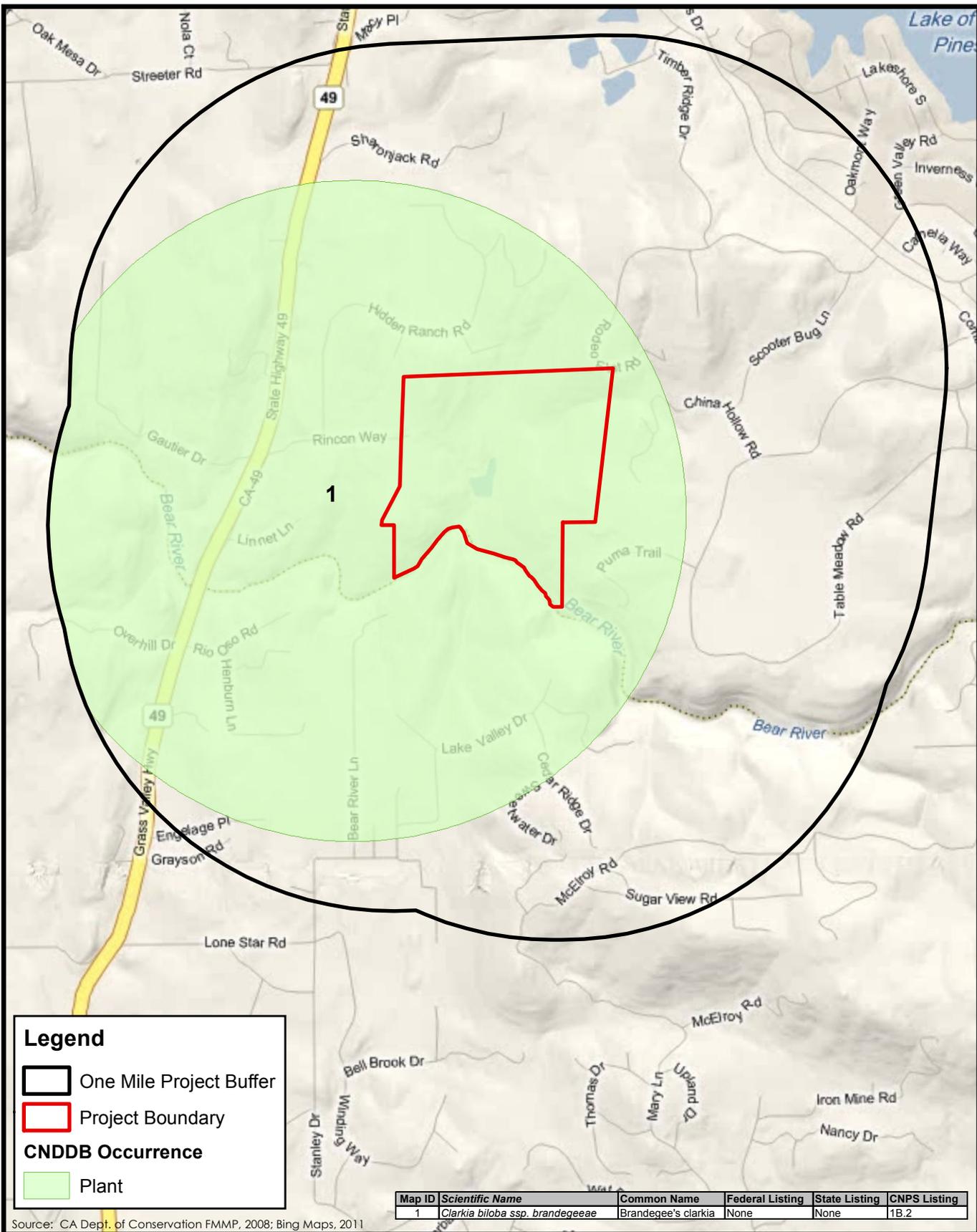
Habitat	Associated Special-Status Species	Acreage within the Project Site
Montane Hardwood-Conifer	Jepson's onion (Rank 1B.2), Brandegee's clarkia (Rank 1B.2), Sierra blue grass (Rank 1B.3), brownish beaked-rush (Rank 2.2), and oval-leaved viburnum (Rank 2.3)	51.4
Montane Hardwood	Jepson's onion (Rank 1B.2), Brandegee's clarkia (Rank 1B.2), and oval-leaved viburnum (Rank 2.3)	106.4
Valley Foothill Riparian	California red-legged frog and Foothill yellow-legged frog (CSC) Western pond turtle (CSC) Yellow warbler (CSC)	4.5
Montane Chaparral	Jepson's onion (Rank 1B.2), Brandegee's clarkia (Rank 1B.2), and oval-leaved viburnum (Rank 2.3)	Not Mapped
Annual Grassland	Jepson's onion (Rank 1B.2), Brandegee's clarkia (Rank 1B.2), and oval-leaved viburnum (Rank 2.3) Western pond turtle (CSC)	30.5
Seasonal Wetland	Brownish beaked-rush (2.2) and finger rush (Rank 1B.1)	0.3
Fresh Emergent Wetland	Brownish beaked-rush (Rank 2.2) and finger rush (Rank 1B.1) California red-legged frog (FT, CSC) and foothill yellow-legged frog (CSC) Western pond turtle (CSC)	0.6
Lacustrine (Pond)	California red-legged frog (FT, CSC) and foothill yellow-legged frog (CSC) Western pond turtle (CSC)	3.0
Wet Meadow	Brownish beaked-rush and finger rush (Rank 1B.1) California red-legged frog (FT, CSC) and foothill yellow-legged frog (CSC) Western pond turtle (CSC)	0.8
Riverine	(Special-status amphibian and reptile species are unlikely to occur in swift current of the Bear River)	3.0

Source: USFWS 2011; CDFG 2011a, 2011b; CNPS 2011; Ecosynthesis 2009a, 2011

Notes: Only natural communities are included, even though some special-status species may nest or forage in unnatural communities (i.e., agricultural lands, man-made canal, and urban). Some species listed may not occur in these associated habitats unless their essential habitat requirements are met. Migratory birds and raptors may nest in any vegetative community if suitable nesting habitat is present.

#### Code Designations

Federal	State	CNPS Rank
FT = Listed as threatened under the FESA	CSC = California Species of Special Concern	<b>Rank 1B</b> = Plant species that are rare, threatened, or endangered in California and elsewhere
		<b>Rank 2</b> = Plant species that are rare, threatened, or endangered in California, but more common elsewhere
		<b>0.1</b> – Seriously threatened in California (high degree/immediacy of threat)
		<b>0.2</b> – Fairly threatened in California (moderate degree/immediacy of threat)
		<b>0.3</b> – Not very threatened in California (low degree/immediacy of threats or no current threats known)



**Figure 3.4-2**  
Previously recorded Occurrences of Special-status Species within One-mile of the Project Site



### Sensitive Biological Resources

Sensitive habitats include areas of special concern to resource agencies, areas protected under CEQA, areas designated as sensitive natural communities by the CDFG, areas outlined in Section 1600 of the California Fish and Game Code, areas regulated under Section 404 of the federal Clean Water Act (CWA), areas protected under Section 402 of the CWA, and areas protected under local regulations and policies. Some of the cover types found on the project site are sensitive habitats protected by various agencies. The riverine and riparian habitats within the project site are sensitive habitats under the jurisdiction of the CDFG and the United States Army Corps of Engineers (USACE). Freshwater emergent wetland, wet meadow, and other wetland areas are potentially jurisdictional under the USACE.

The term "oak woodland" refers to an oak stand with greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (Oak Woodland Conservation Act, FGC Section 1361). Montane hardwood and montane hardwood-conifer have at least 10 percent canopy cover of oak trees. Valley foothill riparian may also have a 10 percent canopy cover of valley oaks although this habitat is already considered a sensitive community by the CDFG. Oak woodland is a CDFG-designated sensitive natural community that occurs within the project site. Oak woodland is rapidly disappearing in California and, as defined in CEQA, further elimination would result in significant adverse impacts.

### Critical Habitat

When the USFWS lists a species as threatened or endangered under FESA, areas of habitat considered essential to its conservation and survival may be designated as critical habitat. The USFWS defines critical habitat as a specific area that is essential for the conservation of a federally listed species and which may require special management considerations or protection. Potential critical habitat designations within and surrounding the project site were checked using the USFWS Critical Habitat Portal (USFWS 2011b). There are no designated critical habitat areas within or surrounding the project site (USFWS 2011b). The closest designated critical habitat area to the project site is approximately 13 aerial miles west south of Camp Far West Reservoir for steelhead (*Oncorhynchus mykiss*) (USFWS 2011b).

### Protected Oak Groves and Landmark Trees

Currently, Nevada County protects significant oak groves and all native oak trees with a trunk of 36 inches or larger at diameter and breast height (dbh; 4.5 feet from grade) (Objective 1.7; Nevada County 1995). There are 39.9 acres of oak grove located on the project site including 16 landmark oak trees belonging to three of the oak species present on the project site (blue oak, valley oak, and black oak) (EcoSynthesis 2009a). Most of these trees occur in specific small areas where the landmark individual trees that occur also support high canopy coverage hardwood woodland. Landmark oak groves (with hardwood canopy coverage greater than 33 percent) occur in 24 scattered large and small patches in all parts of the project site. In the western portion of the project site, the majority of these groves are dominated by interior live oak, often with a low dense canopy formed by small to medium-diameter trees with relatively low diversity of other plants and providing only limited special wildlife values (EcoSynthesis 2009a). The landmark oak groves which seem most likely to support the special wildlife and plant diversity values for which oak woodlands are prized all occur in the eastern half of the project site, specifically on the west- and southwest-facing slopes above the Bear River, adjoining the valley foothill riparian habitat on their east side, and in the central-east portion of the project site (Figure 3.4-3) (EcoSynthesis 2009a).

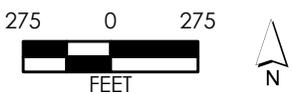
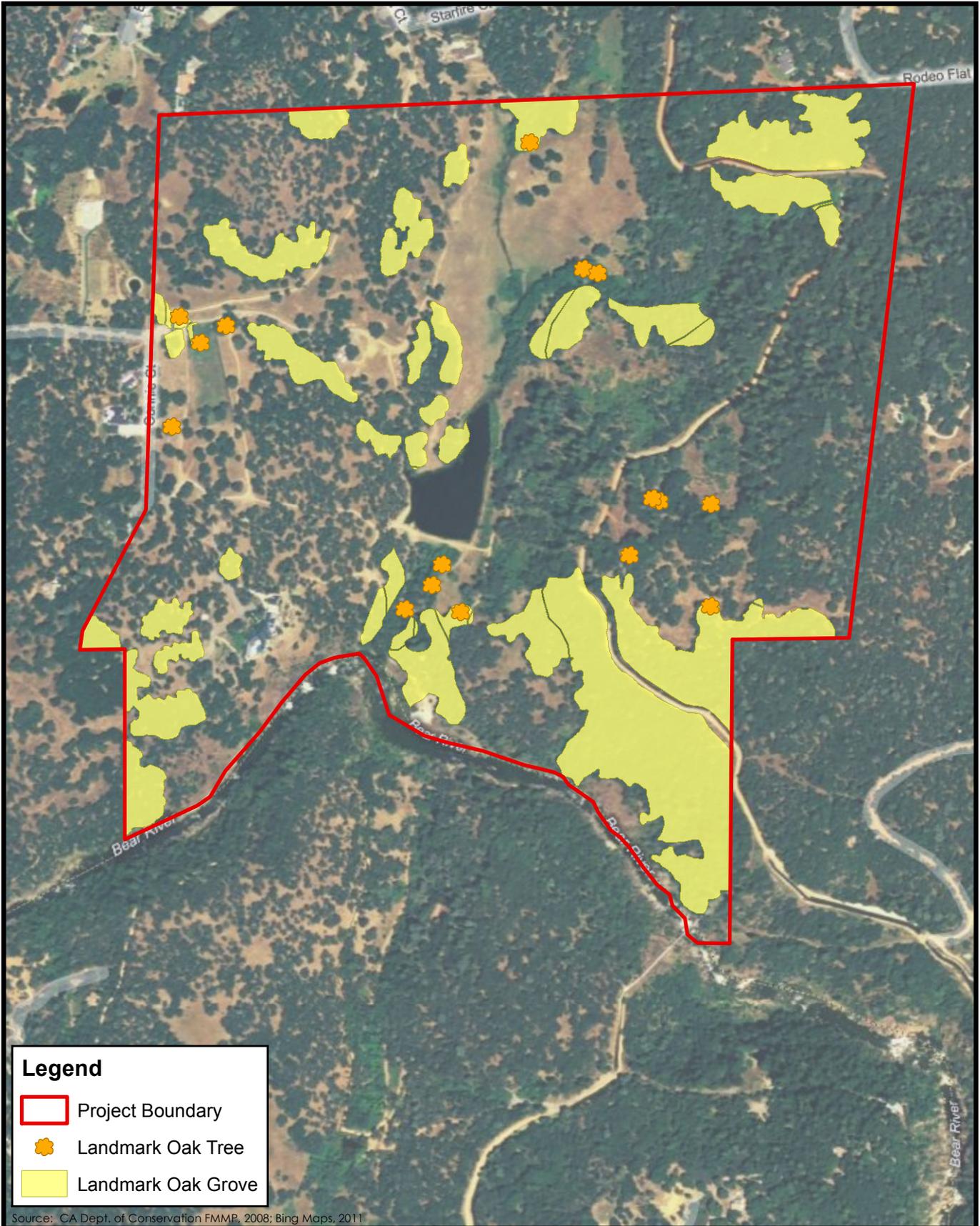
### **3.4 BIOLOGICAL RESOURCES**

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#### Wildlife Corridors

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Corridors are present in a variety of habitats and link otherwise fragmented areas of undisturbed area. Maintaining the continuity of established wildlife corridors is important to sustain species with specific foraging requirements, preserve a species' distribution potential, and retain diversity among many wildlife populations. Wildlife movement corridors are considered an important ecological resource by various agencies (e.g., CDFG, USFWS) and under CEQA. Stream corridors are often used by wildlife as movement corridors. The Bear River within the project site may provide an east-west movement corridor for common and special-status wildlife species. In addition, the area surrounding the project site is sparsely developed with rural residential. The majority of the project site and environs is undeveloped and therefore provides open space for movement of wildlife in the region.

The project site is located within the territory of the resident Motherlode deer herd (Nevada County 1995). Movement corridors allow these resident deer to move within their home range or residence areas. The Bear River canyon from State Route 174 to the west of State Route 49 may provide the last best link between the upland conifer forests and lowland oak forests, critical for wintering deer herds and other migrating wildlife (Shilling and Girvetz 2003).



**Figure 3.4-3**  
Landmark Trees and Oak Grove within the Project Site



### **3.4.2 REGULATORY FRAMEWORK**

#### FEDERAL

##### **Endangered Species Act**

The federal Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process. Procedures for addressing impacts to federally listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the act for all terrestrial species. The first pathway, Section 10(a) incidental take permit, applies to situations where a non-federal government entity must resolve potential adverse impacts to species protected under the act. The second pathway, Section 7 consultation, applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval.

##### **Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the Fish and Game Code.

All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC], Section 703 et seq.) and California statute (FGC Section 3503.5). The golden eagle and bald eagle are also afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC, Section 669 et seq.).

##### **Clean Water Act**

Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain certification that the discharge will comply with the applicable effluent limitations and water quality standards. The appropriate Regional Water Quality Control Board (RWQCB) (in California) regulates Section 401 requirements.

Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into "waters of the United States" without a permit from the USACE. The USACE and the U.S. Environmental Protection Agency administer the act. In addition to streams with a defined bed and bank, the definition of waters of the U.S. includes wetland areas "that are inundated or saturated by surface 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" (33 CFR 328.3 7b).

Substantial impacts to jurisdictional wetlands may require an individual permit. Small-scale projects may require a nationwide permit, which typically has an expedited process compared to the individual permit process. Mitigation of wetland impacts is required as a condition of the 404 permit and may include on-site preservation, restoration, or enhancement and/or off-site restoration or enhancement. The characteristics of the restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

### **3.4 BIOLOGICAL RESOURCES**

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#### **Executive Order 13112 – Invasive Species**

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

STATE

#### **California Endangered Species Act**

Sections 2050 through 2098 of the Fish and Game Code outline the protection provided to California's rare, endangered, and threatened species. Section 2080 of the FGC prohibits the taking of plants and animals listed under the California Endangered Species Act. Section 2081 established an incidental take permit program for state-listed species. In addition, the Native Plant Protection Act of 1977 (FGC Section 1900 et seq.) gives the CDFG authority to designate state endangered, threatened, and rare plants and provides specific protection measures for designated populations.

The CDFG has also identified many "Species of Special Concern." Species with this status have limited distribution or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and thereby warrant specific protection measures.

Sensitive species, which would qualify for listing but are not currently listed, are afforded protection under CEQA. The CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society's Lists 1A, 1B, and 2 would typically be considered under CEQA.

#### **Fish and Game Code**

Sections 1601 to 1606 of the FGC require that a Streambed Alteration Application be submitted to the CDFG for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFG reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFG and the applicant is the Streambed Alteration Agreement. Projects that require a Streambed Alteration Agreement may also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

Sections 3500 to 5500 of the FGC outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFG cannot issue permits or licenses that authorize the

“take” of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Specific sections of the FGC pertinent to the proposed project include:

- Section 3503 (which prohibits the taking, possession, or needless destruction of the nest or eggs of any bird)
- Section 3503.5 (which prohibits the taking, possession, or destruction of any bird in the order Falconiformes or Strigiformes (birds of prey) or the taking, possession, or destruction of the nest or eggs of any such bird)
- Section 3513 (which prohibits the taking or possession of any migratory non-game bird as designated in the MBTA)

### **CEQA Guidelines Section 15380**

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state lists of protected species may be considered rare or endangered in a CEQA analysis if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the federal Endangered Species Act and the section of the California Fish and Game Code dealing with rare or endangered plants and wildlife. Section 15380(d) allows a public agency to undertake a review to determine if discretionary approvals will result in a significant effect on species that have not yet been listed by either the USFWS or CDFG (e.g., candidate species, species of concern). Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

### LOCAL

#### **Nevada County General Plan**

The Nevada County General Plan serves as the overall guiding policy document for the unincorporated areas of Nevada County. A summary of the project’s consistency with applicable General Plan biological resource policies is contained in **Appendix 3.0-A**. While this Draft EIR analyzes the project’s consistency with the General Plan pursuant to CEQA Section 15125(d), the Nevada County Board of Supervisors makes the ultimate determination of consistency with the General Plan.

#### **Nevada County Land Use and Development Code**

##### Section L-II 4.3.12 – Rare, Threatened and Endangered Species and Their Habitat

The Nevada County Land Use and Development Code, Section L-II 4.3.12, includes regulations intended to avoid the impact of development on rare, threatened, endangered, and special-status species and their habitat, or where avoidance is not possible, to minimize or compensate for such impacts and to retain their habitat as non-disturbance open space. The regulations indicate that a project may only be approved when it is determined by the County Planning Agency that it will not adversely affect rare, threatened, or endangered species or their habitat and that it will result in no net loss of habitat function or value for the defined species. When it is determined that a project will adversely affect a defined species or their habitat, the regulations require that a site-specific habitat management plan be prepared.

## **3.4 BIOLOGICAL RESOURCES**

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### Section L-II 4.3.15 – Trees

Section L-II 4.3.15 includes regulations intended, among other things, to preserve and minimize the disturbance of landmark and heritage trees and groves from development projects through on-site vegetation inventories, mandatory clustering, and other measures necessary to protect such habitat. The regulations indicate that a project may only be approved when they do not remove or disturb defined trees or groves, unless a management plan is prepared consistent with the regulations.

### Section L-II 4.3.17 – Watercourses, Wetlands and Riparian Areas

Section L-II 4.3.17 includes regulations intended to preserve the integrity and minimize the disruption of watersheds and watercourses; to preserve stream corridors and riparian habitat, ensure adequate protection of stream values, and protect stream corridors for wildlife movement and foraging; and to avoid the impact of development on wetlands, or where avoidance is not possible, to minimize or compensate for such impacts, to provide for minimum setbacks to protect resources values, and to retain wetlands as non-disturbance open space. The regulations identify non-disturbance buffers, generally 100 feet, around water, wetland, and riparian resources unless a management plan is prepared.

### **3.4.3 IMPACTS AND MITIGATION MEASURES**

#### STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the State CEQA Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts on biological resources if it would:

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFG or USFWS.
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the CDFG or USFWS.
- 3) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means.
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- 5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- 6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or State habitat conservation plan.

- 7) Substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.

CEQA Guidelines Section 15380 further provides that a plant or wildlife species may be treated as “rare or endangered” even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

An evaluation of the significance of potential impact on biological resources must consider both direct effects to the resource as well as indirect effect in a local or regional context. Potentially significant impacts would generally result in the loss of a biological resource or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially affect the resource on a population-wide or region-wide basis.

For the purposes of this Draft EIR, the following criterion was also used in determining whether the proposed project would result in a significant impact associated with land use. An impact would be considered significant if the project would:

- 8) Create hazards for project site residents as a result of interactions with poisonous or dangerous wildlife on the site.

#### METHODOLOGY

The analysis of impacts to biological resources presented in this section is based on previous biological investigations and reports, as well as available literature and maps from federal, state, and local agencies, the project description (Section 2.0 of this DEIR), existing plans for the proposed project, and the standards of significance described below. The exact detail of all development associated with the proposed project is not known at this time. Although the general location of the buildings and infrastructure on the project site is known, the footprints of some of the amenities are not. Although many of the amenities shown on **Figure 2.0-6** (the Comprehensive Master Plan) already exist to some extent (e.g., volleyball court, gazebos, picnic area, and trails), the improvements to these locations are not known at this time.

An approximate boundary was drawn around the proposed development areas and Rincon Way improvements to approximate the impacts to vegetative communities. The acreage calculations of impacts to vegetative communities described in this impact analysis differ from the calculations provided by EcoSynthesis (2009a, 2011) because of the adjustments to the vegetative community boundaries based on current site conditions and the approximate boundary of impact used in this analysis and shown on **Figure 3.4-4a** and **Figure 3.4-4b**. It is likely that additional areas of natural resources would be retained beyond what is currently mapped. The impact acreage calculations for landmark trees and oak groves from the Habitat Management Plan (EcoSynthesis 2009b) were used in this analysis. Furthermore, the temporary construction zone has not yet been determined, so although the approximate boundary of permanent impact is larger than what would be necessary, additional temporary impacts may occur. For instance, additional temporary construction impacts may occur in association with the improvements to the amenities, trails, emergency access road, Rincon Way improvements and main building development area.

## 3.4 BIOLOGICAL RESOURCES

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### IMPACTS AND MITIGATION MEASURES

The impact assessment was based on the project description (Section 2.0), information described in the environmental setting, and the standards of significance described above. Implementation of the proposed project has the potential to directly or indirectly affect biological resources as well as contribute to cumulative impacts. Potential impacts to biological resources can be temporary, long-term, or permanent depending on the effect of project activities on an individual resource. The analysis of biological resources presented in this section is based on data collected from a reconnaissance-level survey, as well as available literature from federal, state, and local agencies.

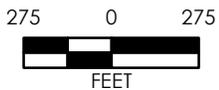
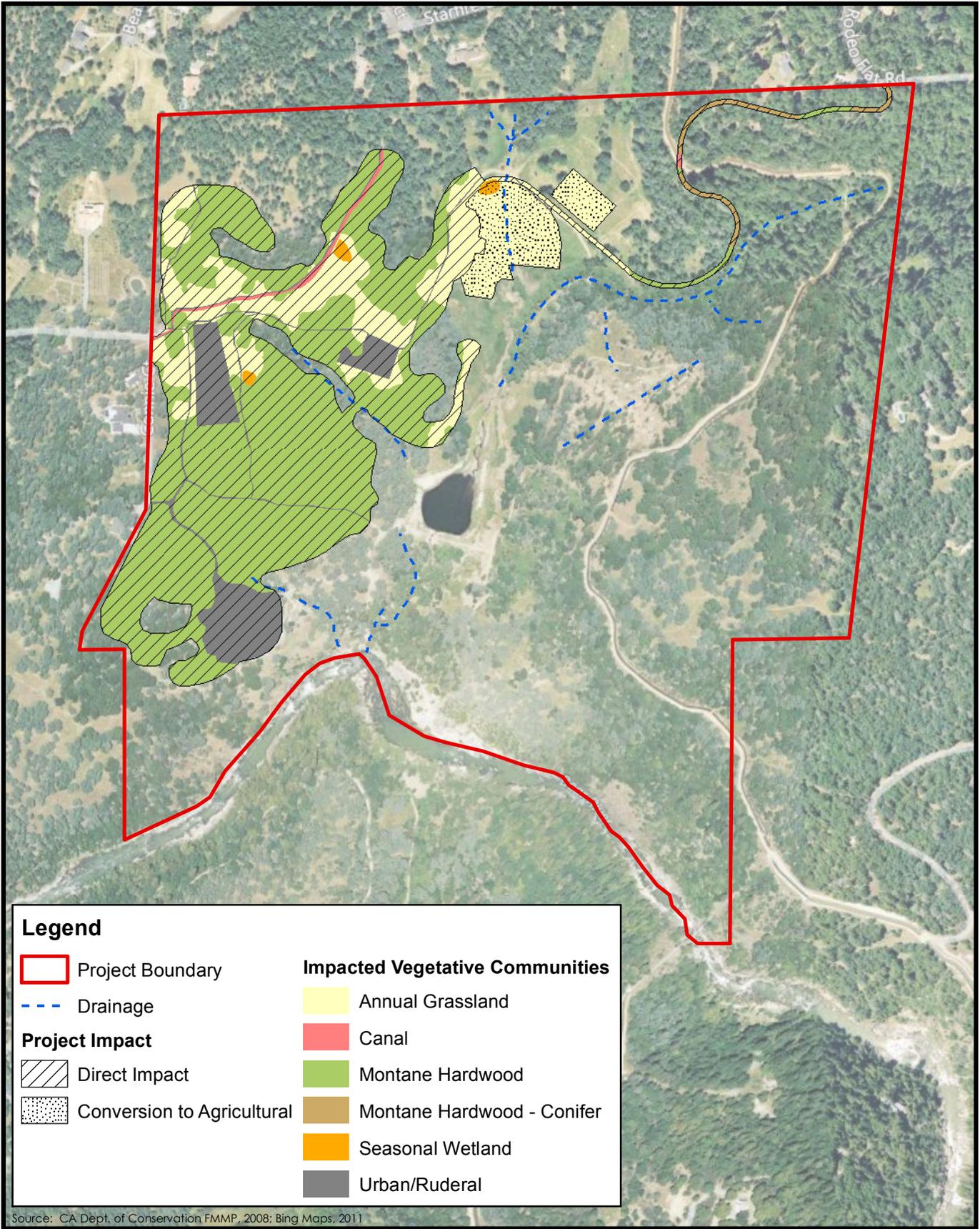
This subsection is separated into discussions of listed special-status species and non-listed special-status species. In addition, discussions of individual special-status species and groups of species are listed separately as determined necessary to adequately assess the impacts to the species.

#### Impacts to Special-Status Plant Species (Standards of Significance 1 and 7)

**Impact 3.4.1** Implementation of the proposed project could result in the substantial adverse effect, either directly or through habitat modifications, on special-status plant species. This would be considered a **potentially significant** impact.

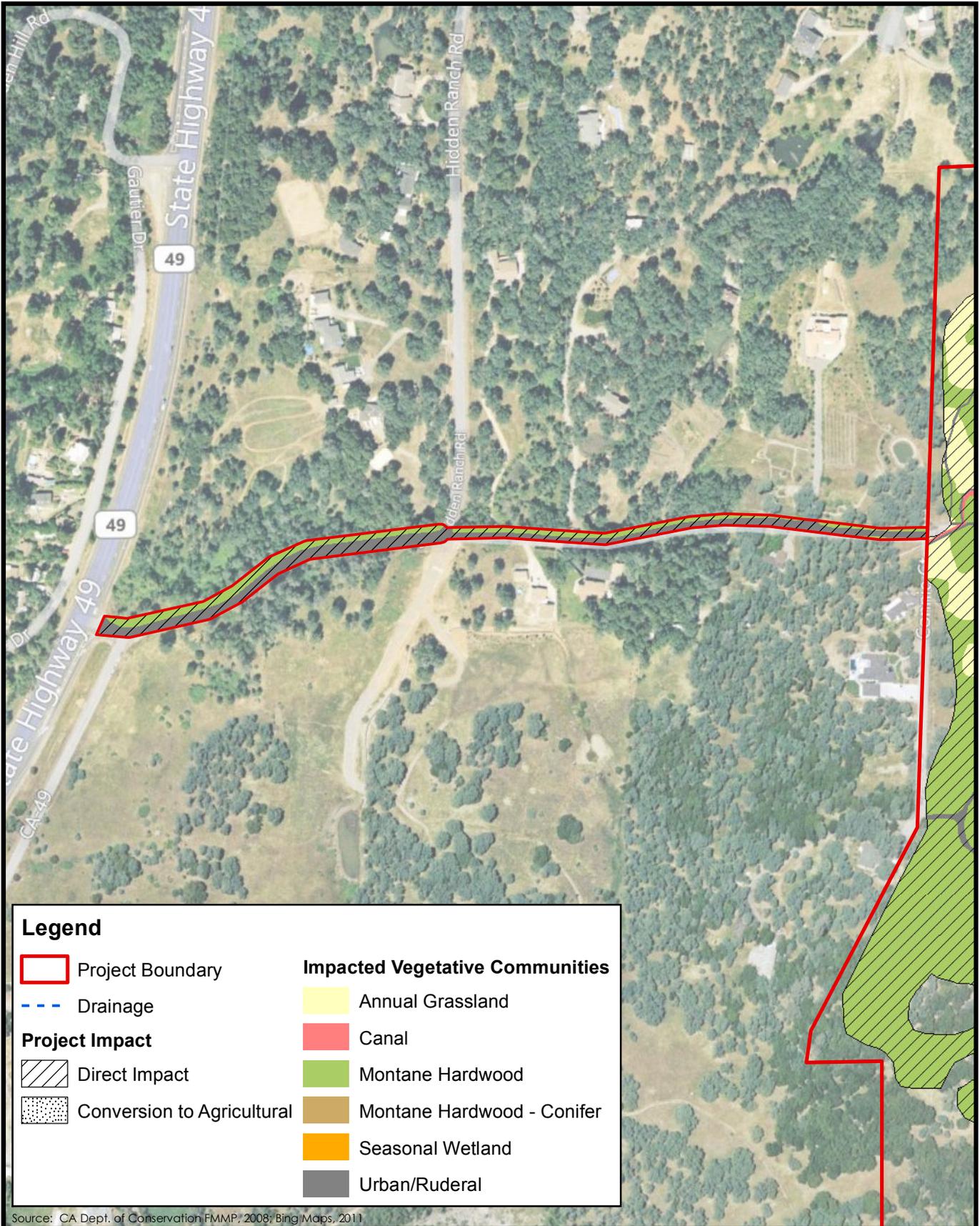
Six special-status plant species have the potential to occur in the project site. Jepson's onion (*Allium jepsonii*; CNPS rank 1B.2) and oval-leaved viburnum (*Viburnum ellipticum*; CNPS rank 2.3) may occur in the upland areas of the project site. Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*; CNPS rank 1B.2) may occur in the upland areas of the project site, specifically in the rocky areas adjacent or upslope from the Bear River. Sierra blue grass (*Poa sierra*; CNPS rank 1B.3) may occur in the montane hardwood-conifer habitat of the project site. Brownish beaked-rush (*Rhynchospora capitellata*; CNPS rank 2.2) and finger rush (*Juncus digitatus*; CNPS rank 1B.1) may occur in the wetland or moist areas within the project site.

Implementation of the proposed project could result in direct mortality or the loss of habitat for these species if they are present within the project footprint. The project could result in indirect effects to these species if present in areas surrounding the project footprint through gradual habitat degradation associated with the introduction of non-native plant species and increased human presence. These are potentially significant impacts.



**Figure 3.4-4A**  
Impacts to Vegetative Communities within the Project Site





**Figure 3.4-4B**  
Impacts to Vegetative Communities within the Project Site



The following mitigation is proposed to minimize impacts to special-status plant species.

Mitigation Measures

**MM 3.4.1**

Prior to any vegetation removal or ground-disturbing activities:

- a. Focused surveys shall be conducted within and adjacent to (within 100 feet, where appropriate) the proposed impact area, which will include impacts from project construction (temporary construction zone and staging areas) or by post-construction fuel management. Surveys shall be conducted during the appropriate time of year to determine the presence of special-status plant species that have been identified as potentially occurring on the project site. Surveys shall be conducted in accordance with the *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFG 2000). Field surveys shall be scheduled to coincide with known flowering periods (for the specific species) and/or during periods of physiological development that are necessary to identify the plant species of concern. According to the known blooming periods, surveys would need to be conducted in May or June and again in July or August (**Table 3.4-3**); however, unusual weather may affect blooming periods so reference sites should be checked. It is important for project staff to schedule the required plant survey in time to allow for salvage and transplantation, if required, prior to initiation of project grading. Specifically, if construction is to be initiated during or prior to September in any year, the survey will need to be completed during the previous calendar year in order to satisfy the mitigation measure requirements. Project approval conditions should include language that alerts project proponents to this circumstance to avoid costly construction delays. The survey report, including a description of methods, map of area surveyed, results, and a complete list of all plant taxa found during the survey, shall be provided to County staff prior to initiation of any grading or equipment operation. If no occurrences of special-status species are found, no further mitigation is required.

**TABLE 3.4-3  
BLOOMING PERIODS FOR SPECIAL-STATUS PLANT  
SPECIES THAT MAY OCCUR IN THE PROJECT SITE**

Plant Species	Typical Blooming Period
Jepson’s onion	April – August
Oval-leaved viburnum	May - June
Brandegee’s clarkia	May – July
Sierra blue grass	April – June
Brownish beaked-rush	July – August
Finger rush	May – June

### 3.4 BIOLOGICAL RESOURCES

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- b. If any federally or state-listed, CNPS Rare Plant Rank 1 or 2 plant species are found within or adjacent to (within 100 feet) the proposed impact area during the surveys, the CDFG (in the case of state-only listed plants) and/or USFWS (in the case of federally listed plants), as applicable, shall be notified regarding the status and location of the plant and the necessary approval and/or permits obtained. These plant species shall be avoided to the extent feasible. Avoidance measures shall include fencing of the population(s) before construction, exclusion of project activities from the fenced-off areas (no ingress of personnel or equipment), and construction monitoring by a qualified biologist. Avoidance areas shall be identified on project plans. If these plants cannot be avoided completely, the following mitigation measures shall be applied:
- Before the approval of grading plans or any groundbreaking activity within the project site, the project applicant shall submit a mitigation plan concurrently to the CDFG (in the case of state-only listed plants) and/or USFWS (in the case of federally listed plants) for review and comment, and the applicant may consult with these entities before approval of the plan. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for the population(s) that would be removed during construction of the project includes implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites. The mitigation ratio for directly impacted plant species shall be at a minimum ratio of 2:1. The actual level of mitigation may vary depending on the sensitivity of the species (its rarity or endangerment status), its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. Alternatively, replacement credits may be purchased by the project applicant at an approved mitigation bank should such credits be available.
  - Transplantation of existing special-status plants could be undertaken to move the plant(s) to a suitable habitat location, either within the project site or at an off-site preserve to be protected in perpetuity. The off-site preserve shall include similar soil, climate, and associated plant species as are currently present at the project site. This location will be protected in perpetuity under a conservation easement and managed appropriately to ensure the transplantation is a success. Please note, however, that for some species transplantation may not be a successful or effective method for conservation, as requirements for some species are highly specialized and not clearly understood. Thus, transplantation shall only be used where success can be assured. Avoidance shall be required for special-status plant species that cannot be transplanted, salvaged or cultivated.
  - If on-site preservation is determined to be feasible, a conservation easement shall be placed over project open space areas to preserve the mitigation areas in perpetuity.

*Timing/Implementation:* Prior to any vegetation removal or ground-disturbing activities. Surveys should be conducted during the species' blooming period.

*Enforcement/Monitoring:* Nevada County Planning Department

If special-status plant species are determined to be present on the project site, impacts to these species through the implementation of the proposed project would be significant. Impacts would be minimized through implementation of the combined mitigation approaches identified above. Impacts to special-status plants would be reduced to **less than significant**.

#### **Impacts to Listed Special-Status Wildlife Species (Standards of Significance 1 and 7)**

**Impact 3.4.2** Implementation of the proposed project could result in a substantial adverse effect, either directly or through habitat modifications, on listed wildlife species. This would be considered a **potentially significant** impact.

Implementation of the proposed project could result in direct and indirect loss of habitat and individuals of endangered, threatened, rare, proposed, or candidate status, and California fully protected species, hereafter referred to as listed special-status species. This is a potentially significant impact.

#### Direct Impacts

Implementation of the proposed project would result in the development of approximately 43.5 acres from an estimate of permanent impact of natural habitat types that serve as occupied or potential habitat for listed species (**Table 3.4-3**). In addition, approximately 4 acres of annual grassland (used as pasture) and seasonal wetland will be converted to a raised-bed community garden, row crops, and an orchard. Development is concentrated on the western portion of the project site. The proposed project would not disturb most of the area to the east of the main unnamed Bear River tributary, except for the emergency access road. The proposed project amenities (e.g., trails and volleyball area) are located to the east of the main tributary. Many of the amenities already exist to some extent (volleyball court, gazebos, picnic area, and trails); the improvements to these locations are not known at this time. With the permanent loss of approximately 47.5 acres of natural habitats (not including urban/ruderal and canal), the proposed project has the potential to result in direct and indirect impacts to listed species. Listed species include those species listed by the USFWS or the CDFG as endangered, threatened, rare, proposed, or candidate. **Figure 3.4-4** shows the impacts the proposed project would have on the vegetative communities within the project site. The proposed project might result in direct mortality or take of listed species if these species are present within the project site during construction and operation activities. California red-legged frog, a species federally listed as threatened, has the potential to occur on the project site.

### 3.4 BIOLOGICAL RESOURCES

**TABLE 3.4-3  
PERMANENT IMPACTS TO VEGETATIVE COMMUNITIES**

Vegetative Community	Conversion to Agriculture (acres)	Direct Impact (acres)
Montane Hardwood	–	34.1
Montane Hardwood - Conifer	–	0.6
Annual Grassland*	4.0*	8.6
Seasonal Wetland	0.1	0.2
Urban/Ruderal	<0.1	5.5
Canal	–	0.5
<b>Total</b>	<b>4.1</b>	<b>47.9</b>

Note: The annual grassland habitat that will be converted to row crops and an orchard is currently used as pasture for cattle. Although urban/ruderal habitat is listed as an impact, it does not provide suitable habitat for listed wildlife species.

#### California Red-Legged Frog

California red-legged frog (*Rana aurora draytonii*) is federally listed as threatened and a California species of special concern. Habitat for the California red-legged frog consists of aquatic breeding sites within a matrix of riparian and upland dispersal habitat. Breeding habitat for the species includes pools and backwaters within streams, creeks, ponds, marshes, springs, lagoons, and artificially impounded stock ponds (USFWS 2002). California red-legged frogs are known to aestivate in upland habitat in rodent burrows, under rocks and logs, and in leaf litter in areas adjacent to aquatic habitat. California red-legged frogs are seldom found far from aquatic habitat during dry periods, but some individuals may disperse through upland habitats after the first fall rains. This species requires a permanent water source and is typically found along slow-moving streams, ponds, or marsh communities with emergent vegetation (USFWS 2002). The fresh emergent wetlands, pond, wet meadow, and main tributary (perennial creek) on the project site support suitable or marginal aquatic habitat for this species. The Bear River is not considered suitable habitat. Although the proposed project will not directly impact these aquatic features, California red-legged frogs use the surrounding upland habitat for dispersal. If present during construction activities, direct take of individuals may occur. In addition, indirect impacts such as increased human presence and/or changes in hydrology or water quality may occur with implementation of the proposed project.

#### Indirect Impacts

Just as direct impacts would occur to habitat in which listed species are found, indirect impacts would occur as well. Indirect impacts occur for a number of reasons, though primarily through increased human/wildlife interactions, habitat fragmentation, encroachment by exotic weeds, and area-wide changes in surface water flows due to development of previously undeveloped areas. In addition, project construction and operation would disturb the surrounding habitat through an increase in noise and vibrations which may negatively impact or drive away wildlife species surrounding the project site.

#### Increased Human/Wildlife Interactions

The proposed project would increase the vehicular traffic on Rincon Way as a result of the increased population density at the site, increasing the amount and severity of indirect impacts to wildlife and habitat within and surrounding the project site. Special-status species may

unintentionally be hit by cars. The increase in vehicular traffic would also increase noise and dust in the vicinity of the proposed project, which may have an indirect impact on special-status species if they are present within the surrounding habitat. Since the area is already partially developed, this impact is not considered significant.

#### *Light Pollution*

Outdoor lighting at night can influence the life cycle and behavior of animals in many ways. In particular for birds, insects, and amphibians, it has been observed that outdoor lighting influences behavior as animals are disoriented, attracted, or repelled by the light, thus increasing the chance of exhaustion and death. Light pollution can confuse animal navigation, alter competitive interactions, change predator-prey relations, and influence animal physiology. For some species with small, isolated populations, this can cause local extinction. The mitigation below will reduce impacts to a less than significant level.

#### *Habitat Fragmentation*

Movement corridors may provide favorable locations for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors, allowing animals to move between various locations within their range. The project site is not located in a "bottleneck" or geographic location where regional movement is restricted to a small corridor relative to the surrounding habitat. The project site is located in an area that is generally open and includes mainly rural residential. The area surrounding the project site is open and wildlife is able to use the surrounding open space habitat for migration. The proposed project maintains a 100-foot buffer from the Bear River; however, nearby recreational uses (i.e., volleyball court, picnic area, and trails) may deter species from using the area.

Since the project site is relatively isolated from other disturbances, species that are particularly shy or apprehensive of human presence or activity may avoid the area surrounding the project site and therefore restrict movement to the remaining undisturbed lands. Since the proposed project includes clustering of development, this impact is considered less than significant.

#### *Encroachment by Exotic Weeds*

Project construction and continued ground disturbance from vehicular and pedestrian traffic would degrade the quality of the habitat and allow the introduction and spread of invasive exotic species. These species can spread to natural areas, causing native plant life to be replaced by exotic species. Initial construction activities, grading, and other ground- or vegetation-clearing disturbances can eliminate the native plant population and allow invasive non-native species to become established. As native plants are replaced by exotic species, indirect impacts to the habitat of listed species would occur, such as modification or degradation of habitat. Since the area is already partially developed, this impact is not considered significant.

#### *Changes in Surface Water Flows*

The proposed project includes the encasement of the Weeks Canal and an increase in landscaped area (which may also include increased runoff and fertilizer/herbicide use), as well as the conversion of annual grassland (pasture) to row crops and an orchard, all of which change the hydrology within the project site. In addition, the conversion of approximately 42 acres of natural habitat to developed lands increases the amount of impermeable surfaces on

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the project site. Surface water flows normally increase due to an increase in impermeable surfaces through, for example, the placement of building materials and paving over of permeable surfaces. Some cover types that contain habitat for listed species can be indirectly impacted by such changes. Since the area is already partially developed, this impact is not considered significant. Section 3.9, Hydrology and Water Quality, provides additional analysis on impacts to changes in hydrology.

#### Mitigation Measures

**MM 3.4.2a** A habitat assessment for California red-legged frog shall be conducted by a USFWS-approved biologist according to the *Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog* (USFWS 2005). If suitable habitat is found the project site, then field surveys should be undertaken consistent with the aforementioned guidance. If California red-legged frog is found, consultation with the USFWS and additional mitigation measures will be required. If California red-legged frogs are present on the project site, an on-site biological monitor shall be present on the project site to ensure that special-status species are not harmed during construction activities. In the event that a special-status frog is found during project construction, construction activities shall stop until the frog is moved by a qualified biologist to a safe location outside of the construction zone.

*Timing/Implementation:* The project applicant shall incorporate requirements into contract plans. Surveys shall be conducted prior to any vegetation removal or ground-disturbing activities. If California red-legged frogs or foothill yellow-legged frogs are found, monitoring activities shall be conducted throughout construction until the area is unoccupied.

*Enforcement/Monitoring:* Nevada County Planning Department

**MM 3.4.2b** If California red-legged frogs are identified during the aforementioned survey (MM 3.4.2a), the project applicant will implement mitigation that would result in no net loss of aquatic and upland California red-legged frog habitat. The specific determination of the appropriate measures will be determined through consultation with USFWS but will include one of the following: create habitat suitable for California red-legged frog, purchase mitigation credits at a USFWS-approved conservation bank, or pay an in-lieu fee into a USFWS mitigation plan.

*Timing/Implementation:* Consultation with the USFWS will occur after protocol-level surveys are conducted. Compensation for loss of habitat will occur prior to any vegetation removal or ground-disturbing activities and as directed through consultation with the USFWS.

*Enforcement/Monitoring:* Nevada County Planning Department

#### MM 3.4.2c

If California red-legged frogs are identified during the aforementioned survey (MM 3.4.2a), the following avoidance and minimization measures shall be implemented to reduce potential impacts to the species:

1. The permittee shall not work in waters of the U.S. during the wet season (November 1 to April 15), unless storm flow is absent and rain is not forecast for at least three days.
2. If a work site is to be temporarily dewatered by pumping, the methods and materials used will be determined by the County in consultation with the USFWS on a site-specific basis. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.
3. A USFWS-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, from the project area to the maximum extent possible if they are encountered. The USFWS-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
4. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force to prevent the spread of disease and parasites will be followed at all times (DAPTF 1991).
5. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work area.
6. The number of access routes, size of staging areas, and total area of the activity will be limited to the minimum necessary to achieve the project goal. Environmentally sensitive areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.
7. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the project applicant will ensure that the contractor's stormwater pollution prevention plan (SWPPP) includes provisions for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

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*Timing/Implementation:* The project applicant shall incorporate requirements into contract plans. If California red-legged frogs are found, these minimization measures shall be implemented.

*Enforcement/Monitoring:* Nevada County Planning Department

#### MM 3.4.2d

If California red-legged frogs are identified during the aforementioned survey (MM 3.4.2a) a worker environmental awareness program (WEAP) shall be established and implemented prior to construction. The program shall include, at a minimum, special-status species or resource identification, a description of suitable habitat for special-status species occurring on the project site, and measures to implement in the event that California red-legged frogs are found during construction. The program shall be presented to all members of the construction crew.

*Timing/Implementation:* A qualified biologist shall implement a worker awareness program prior to any vegetation removal or ground-disturbing activities.

*Enforcement/Monitoring:* Nevada County Planning Department

#### MM 3.4.2e

Illumination installed shall be affixed with glare shields and directed away from adjoining properties and roads. An outdoor illumination plan, as required by Nevada County Land Use and Development Code, Chapter II, Article 4.0, Section L-II 4.2.8, shall be submitted to the Nevada County Planning Department prior to commencement of construction operations. The lighting plan shall be designed to use the minimum amount of lights and incandescent lamps as possible, so as not to cause lighting effects on wildlife in the surrounding area, and shall employ low-watt orange-colored lamps ("bug lights") whenever possible.

*Timing/Implementation:* Prior to any vegetation removal or ground-disturbing activities

*Enforcement/Monitoring:* Nevada County Planning Department

Implementation of the above mitigation measures, as well as mitigation measures in Section 3.9, Hydrology and Water Quality, would reduce impacts to listed special-status species to a **less than significant** level.

#### Impacts to Non-Listed Special-Status Wildlife Species (Standards of Significance 1 and 7)

##### Impact 3.4.3

Implementation of the proposed project could result in a substantial adverse effect, either directly or through habitat modifications, on non-listed special-status wildlife species. This impact would be considered **potentially significant**.

Implementation of the proposed project could result in species of special concern, migratory birds protected under the MBTA, and other non-listed special-status species, hereafter referred to as non-listed special-status species. Based on the database searches for special-status wildlife and habitat suitability within the project site, five non-listed special-status wildlife species were determined to have potential to occur in the project site. No special-status invertebrates or fish

have the potential to be impacted by the proposed project, since the project site is either outside of their range, the dam at the Camp Far West Reservoir blocks passage, or suitable habitat is not present. **Appendix 3.4-A** includes the list of all the special-status species from the database searches and the rationale for considering them in the impact analysis. The Rincon del Rio Biological Inventory also evaluated these impacts and mitigation measures provided below are a refinement of these measures.

### Foothill Yellow-Legged Frog

The foothill yellow-legged frog (*Rana boylei*) is a California species of special concern. This species occurs in rocky streams and rivers with open, sunny banks, in forests, chaparral, and woodlands, although it is sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools (CaliforniaHerps 2011). Clusters of eggs are laid on the downstream side of rocks in shallow slow-moving water where they are attached to submerged rocks and pebbles and occasionally vegetation (CaliforniaHerps 2011). There is one previously recorded occurrence within a 5-mile radius of the project site (CDFG 2011a). Although according to Dr. Juncosa, suitable egg-laying substrate for this species (some cobble) is not present on the project site (EcoSynthesis 2011), the results of the 2011 survey conducted by PMC found suitable habitat within the tributary on the project site. The pond, wetlands, and drainages, in addition to the associated uplands on the project site, are suitable habitat for foothill yellow-legged frog. The Bear River is not considered suitable habitat. If the species is present during construction activities, implementation of the proposed project may impact the foothill yellow-legged frog. Impacts described for California red-legged frog also pertain to foothill-yellow legged frog if detected on the project site. With the implementation of mitigation measures **MM 3.4.2a** (pre-construction survey), **MM 3.4.2c** (general avoidance/minimization measures), **MM 3.4.2d** (WEAP), and **MM 3.4.2e** (avoidance/minimization measures for special-status frogs), impacts would be reduced to **less than significant**.

### Western Pond Turtle

Western pond turtle (*Actinemys marmorata*) is a California species of special concern. It prefers slow-water aquatic habitat with terrestrial and aquatic basking sites. Western pond turtles typically do not move more than a few meters from aquatic sites; however, movement into adjacent upland habitat does occur for egg-laying. Most turtles stay within 100 meters of stream channels, mainly moving during breeding and egg-laying (CDFG 2002). Suitable habitat is present within the pond as well as in some of the wetlands and drainages, in addition to the associated uplands on the project site. The Bear River does not represent suitable habitat for the species. Implementation of the project would result in temporary disturbance and permanent alteration of upland habitat near features that could support potential breeding habitat for the western pond turtle. If the species is present, project implementation may result in the loss of western pond turtle nests or individuals. With the implementation of mitigation measure **MM 3.4.3a** below, impacts would be reduced to **less than significant**.

### Migratory Birds and Raptors

Project construction could result in loss of habitat that may be used as foraging or nesting habitat for migratory birds and raptors. Project construction activities may result in the loss of young or eggs of migratory birds or raptors such as yellow warbler (*Dendroica petechia brewsteri*) or northern harrier (*Circus cyaneus*) and California species of special concern due to direct removal of the nest or loss of foraging habitat. All native breeding birds (except game birds during the hunting season), regardless of their listing status, are protected under the MBTA. Construction activities could cause direct impacts to nesting raptors and migratory birds, if birds

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are actively nesting during construction activities. Nests may be located in trees, shrubs, or emergent vegetation, on the ground, in burrows, or on existing buildings or structures. Excessive noise, disturbance, and vibrations can cause nesting birds to abandon their nests. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptor or migratory bird species in the project vicinity. Potential nest abandonment and mortality to eggs and chicks, as well as stress from loss of foraging areas, would also be considered potentially significant impacts. If nesting migratory birds or raptors are present during project construction, the proposed project may cause direct mortality to raptors or migratory birds through removal of vegetation that contains active nests. If construction occurs during the non-nesting season, no impacts are expected; however, if construction activities were scheduled to occur during the nesting season, mitigation would be necessary to avoid potential impacts to migratory birds and their nests. The loss or disturbance of active nests or direct mortality is prohibited by the MBTA and California Fish and Game Code Section 3503.5. With the implementation of mitigation measure **MM 3.4.3b** below, impacts would be reduced to **less than significant**.

#### Mitigation Measures

**MM 3.4.3a** A preconstruction survey for western pond turtle shall be conducted at least one week prior to the onset of construction activities adjacent to suitable habitat. The survey area shall encompass a 325-foot radius of the area to be affected. If juvenile or adult turtles are found within the survey area, the individuals should be moved to a predetermined location with suitable habitat. If a turtle nest is found within the survey area, construction activities should not take place within 100 feet of the nest until the turtles have hatched or the eggs have been moved to an appropriate location. Furthermore, one-way barrier fencing shall be constructed within 325 feet of suitable aquatic habitat to prevent turtles from moving into the construction area to nest, hibernate, or aestivate, while allowing turtles already in the construction area to move back to water.

*Timing/Implementation:* Prior to any vegetation removal or ground-disturbing activities

*Enforcement/Monitoring:* Nevada County Planning Department

**MM 3.4.3b** If vegetation removal or ground surface disturbance (any form of grading) is to occur between March 1 and August 31, the project applicant shall retain a qualified biologist to conduct a focused survey for active nests within 14 days prior to the disturbance of the construction area. Nesting surveys for small birds are only fully effective if carried out between dawn and 11 AM, as many species become inactive during the middle of the day. If active nests are found, trees/shrubs with nesting birds shall not be disturbed until abandoned by the birds or a qualified biologist deems disturbance potential to be minimal (in consultation with the USFWS and/or CDFG, where appropriate). If applicable, tree removal and grading shall be restricted to a period following fledging of chicks, which typically occurs between late July and early August. If an active nest is located within 100 feet (250 feet for raptors) of construction activities, other restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest as confirmed by the appropriate resource agency) or alteration of the construction schedule. If construction activities or

tree removal is proposed to occur during the non-breeding season (September 1 to February 28), a survey is not required, no further studies are necessary, and no mitigation is required.

*Timing/Implementation:* Prior to any vegetation removal or ground-disturbing activities. Reference to this requirement and the MBTA shall be included in the construction specifications.

*Enforcement/Monitoring:* Nevada County Planning Department

Implementation of the above mitigation measures and mitigation measures in Section 3.9, Hydrology and Water Quality, would reduce impacts to non-listed special-status wildlife species to a **less than significant** level.

#### **Impacts to Potential Jurisdictional Waters of the U.S., Including Wetlands (Standards of Significance 3 and 7)**

**Impact 3.4.4** Implementation of the proposed project would result in the loss of jurisdictional waters of the U.S., including wetlands. This would be considered a **potentially significant** impact.

Although a formal wetland delineation has not been conducted, potentially jurisdictional features have been mapped on the project site. All the wetland features mapped on the project site are assumed to be considered jurisdictional by the USACE (including potentially isolated seasonal wetlands). Implementation of the proposed project would result in the loss of approximately 0.8 acre. The impacts to potentially jurisdictional features listed in **Table 3.4-4** are shown on **Figure 3.4-5**. The proposed development avoids any intrusions into wetland or riparian areas, except that it will require widening or minor realignment of one or more roads which cross tributaries. Replacement or extension of the culverted crossings may necessitate small amounts of fill, or excavation and backfill, of small areas of tributary waters of the U.S., possibly including adjacent wetlands. Total amounts of fill should be less than the 0.5-acre ceiling that applies to the nationwide permits applicable to culverted road crossings with a residential development. If the existing culverts are adequate and no fill is required to build a County-standard road over the tributary, then the impact would not occur and no mitigation is required.

Authorization for such fill shall be secured from the USACE through the CWA Section 404 permitting process prior to project implementation. If a CWA Section 404 permit were to be required from the USACE, a CWA Section 401 permit would be also required from the Regional Water Quality Control Board. If it is determined by a qualified wetland biologist and through consultation with the Regional Water Quality Control Board that features that qualify as waters of the State would be affected, the applicant would be required to obtain an authorization from the Regional Water Quality Control Board to fill/disturb these features prior to project implementation. Furthermore, construction-related impacts to water quality would be mitigated through a National Pollutant Discharge Elimination System (NPDES) permit.

In addition, Nevada County Land Use and Development Code Section L-II 4.3.17 requires the preparation of a management plan that avoids or minimizes impacts to water, wetland, and riparian resources for any project within 100 feet of such resources. Because the project would result in the loss of approximately 0.8 acre of wetlands, the project is required to prepare a management plan that minimizes impacts, as defined by Nevada County. Consistent with this requirement, the proposed project includes a Habitat Management Plan (EcoSynthesis 2009b),

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which is included in **Appendix 3.2-A**. According to the plan, impacts to 0.8 acre of wetlands constitutes an impact within the range that is authorized under the existing nationwide Section 404 permits, if all conditions are met (EcoSynthesis 2009b).

**TABLE 3.4-4  
PERMANENT IMPACTS TO POTENTIAL JURISDICTIONAL FEATURES**

<b>Vegetative Community</b>	<b>Conversion to Agriculture</b>	<b>Direct Impact</b>
Seasonal Wetland	0.1 acre	0.2 acre
Drainages	0.02 acre (380 linear feet)	<0.01 acre (50 linear feet)
Canal (Weeks Canal)	–	0.5 acre
<b>Total</b>	<b>0.1</b>	<b>0.7</b>

Therefore, disturbance and/or loss of jurisdictional waters and wetlands from implementation of the proposed project are considered **potentially significant** unless mitigation requiring the necessary condition are incorporated that refines mitigation measure BIO-1 identified in the Rincon del Rio Biological Inventory (see page 12 of the Biological Inventory) (EcoSynthesis 2009b) as well as mitigation identified in the Habitat Management Plan. The Habitat Management Plan also includes water quality protection measures (pages 7 and 8 of the Habitat Management Plan) that would further protect these resources.

#### Mitigation Measures

##### **MM 3.4.4**

A formal wetland delineation shall be conducted for areas that will be permanently or temporarily impacted by the proposed project including improvements to Rincon Way. If jurisdictional waters cannot be avoided, the project applicant shall apply for a CWA Section 404 permit from the USACE and a Section 401 permit from the RWQCB. These permits shall be obtained prior to issuance of grading permits and implementation of the proposed project.

The project applicant shall ensure that the project will result in no net loss of waters of the U.S. by providing mitigation through impact avoidance, impact minimization, and/or compensatory mitigation for the impact, as determined in the CWA Section 404/401 permits.

Compensatory mitigation may consist of (a) obtaining credits from a mitigation bank; (b) making a payment to an in-lieu fee program that will conduct wetland, stream, or other aquatic resource restoration, creation, enhancement, or preservation activities; these programs are generally administered by government agencies or nonprofit organizations that have established an agreement with the regulatory agencies to use in-lieu fee payments collected from permit applicants; and/or (c) providing compensatory mitigation through an aquatic resource restoration, establishment, enhancement, and/or preservation activity. This last type of compensatory mitigation may be provided at or adjacent the impact site (i.e., on-site mitigation) or at another location, usually within the same watershed as the permitted impact (i.e., off-site mitigation). The project proponent/permit applicant retains responsibility for the implementation and success of the mitigation project.

Evidence of compliance with this mitigation measure shall be provided prior to construction and grading activities for the proposed project.

*Timing/Implementation: Prior to any vegetation removal or ground-disturbing activities*

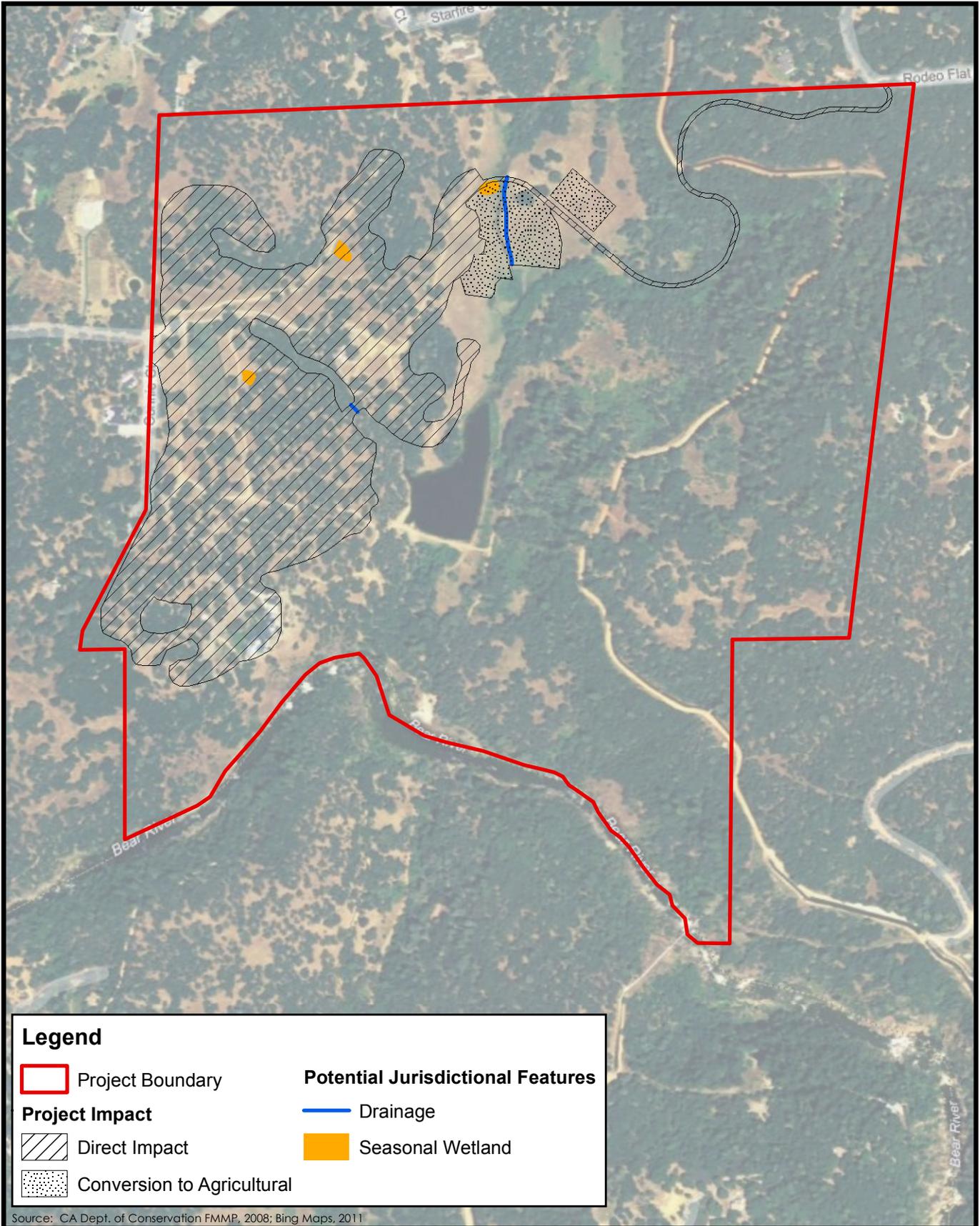
*Enforcement/Monitoring: Nevada County Planning Department*

Implementation of the above mitigation measure and mitigation measures in Section 3.9, Hydrology and Water Quality, would reduce impacts to wetlands and other waters of the U.S. to a **less than significant** level.

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**Figure 3.4-5**  
Impacts to Potential Jurisdictional Features Including Wetlands within the Project Site



**Impacts to Migratory Corridors (Standards of Significance 4 and 7)**

**Impact 3.4.5** Implementation of the proposed project would not interfere with the movement of native resident or migratory wildlife species. This impact would be considered **less than significant**.

Implementation of the proposed project would not result in the obstruction of movement of migratory birds or other wildlife. Migratory birds or other wildlife species may use the habitats within the project site during migration. The Bear River within the project site may provide an east-west movement corridor for common and special-status wildlife species. In addition, the area surrounding the project site is sparsely developed with rural residential. The majority of the project site and environs is undeveloped and therefore provides open space for movement of wildlife in the region. The proposed project was designed to cluster the development and maintain large continuous areas of open space. The area of proposed development on the project site is clustered on the western portion of the project site adjacent to Rincon Way and Connie Court. For the most part, a 100-foot buffer is maintained around the main tributary and the Bear River. Given the retention of the open space within the project site, the project's impact to migratory corridors is **less than significant** and no mitigation is required.

**Mitigation Measures**

None required.

**Impacts to Protected Landmark Oak Trees and Groves (Standards of Significance 5)**

**Impact 3.4.6** Implementation of the proposed project would result in the removal of or damage to protected landmark oak trees and groves during construction. This is considered a **potentially significant** impact.

The project design was repeatedly adjusted to minimize direct or indirect impacts on the landmark oak trees and groves mapped within the project site through incorporation of the recommendations of the draft Habitat Management Plan (EcoSynthesis 2009b), developed to specify mitigation actions for potential direct and indirect impacts on landmark oak groves (see **Appendix 3.2-A**). All of the individual landmark oak trees are avoided, but no feasible design could be reached that achieved project objectives and regulatory requirements (for example, necessity for a secondary fire protection access road) with no grading within the canopy of any landmark oak grove. Also, in order to achieve the extremely desirable environmental goal of clustering all development in the western part of the project site, it was necessary to allow for minor amounts of grading with the limits of some small patches of landmark oak grove. The project will result in construction within the limits of some areas of landmark oak grove (canopy cover greater than 33 percent). CEQA guidelines do not address this resource, but the Nevada County General Plan determined that direct impacts within the limits of such oak woodlands constitute a significant impact.

The estimated area of impact of the proposed project on landmark oak groves is approximately 1.35 acre of the total of 39.9 acres of landmark oak groves that occur within the project site. The estimated area of impact is less than 3.5 percent of the total landmark oak groves on the project site. In accordance with County Zoning Regulations, if it is impossible for the project design to avoid landmark oak groves (as in the case of the second access road) or if avoidance would make it impossible to achieve a more important environmental protection goal or requirement (as in the case of clustering development in the western part of the project site rather than spreading it out and extending into the eastern part of the project site where more

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valuable habitat resources are located), then the project may be approved and constructed if a Habitat Management Plan is prepared and implemented, as specified in the mitigation measure below. Mitigation measure **MM 3.4.6** is based on both the Habitat Management Plan as well as Rincon del Rio Biological Inventory mitigation measure BIO-5 (see page 16 of the Biological Inventory) provides mitigation for both direct and indirect impacts on landmark oak grove habitat and will reduce those impacts to a less than significant level.

#### Mitigation Measures

**MM 3.4.6** Each project phase submittal shall demonstrate compliance with the Rincon del Rio Habitat Management Plan in regard to mitigation and protection of on-site oak woodland resources.

*Timing/Implementation:* Prior to any vegetation removal or ground-disturbing activities

*Enforcement/Monitoring:* Nevada County Planning Department

Implementation of the above mitigation measure as part of implementation of the Habitat Management Plan would reduce impacts to protected trees to a **less than significant** level.

#### **Impacts to Sensitive Biological Communities (Standards of Significance 2 and 7)**

**Impact 3.4.7** Implementation of the proposed project may result in the disturbance, degradation, and/or removal of other sensitive biological communities. This would be considered a **potentially significant** impact.

Implementation of the proposed project would result in the disturbance, degradation, and/or removal of wetlands, which are considered sensitive habitats by resource agencies. This is discussed separately under Impact 3.4.4.

Implementation of the proposed project would also impact the oak woodlands within the project site. Impact 3.4.6 addresses impacts to landmark oak trees and groves. The proposed project will directly impact an approximate total of 33.1 acres of oak woodland (32.5 acres of montane hardwood and 0.6 acre of montane hardwood-conifer). Implementation of mitigation measure **MM 3.4.6** would reduce impacts to oak woodland.

Although valley foothill riparian habitat will not be directly impacted by the proposed project, it is likely that a portion of the secondary access road will be constructed within 100 feet of the main tributary and/or adjacent riparian area which leads to the pond in the center of the project site. Other project elements, such as the row crops and trails, will also be located closer than 100 feet from wetlands. This could result in indirect degradation of habitat values due to sedimentation and/or disturbance of wildlife habitat during construction or during project operation. The prevalence of slopes steeper than 30 percent and other constraints such as the location of the access point itself make it impossible to locate all project features more than 100 feet from all riparian and wetland areas. As previously noted, the Rincon del Rio Biological Inventory and Habitat Management Plan provides mitigation and protection measures that address wetland resources and landmark oak trees and groves. Mitigation measure **MM 3.4.7** (which is based on mitigation measure BIO-2 from the Rincon del Rio Biological Inventory [see page 13]), in addition to mitigation measures **MM 3.4.2e** and **MM 3.4.4**, would reduce this impact to a less than significant level.

Mitigation Measures

**MM 3.4.7** For all project elements that must unavoidably be constructed within 100 feet of riparian or wetland areas, the project shall implement water quality and wildlife habitat mitigation measures provided on pages 7 through 9 of the Rincon del Rio Habitat Management Plan.

*Timing/Implementation:* Prior to any vegetation removal or ground-disturbing activities

*Enforcement/Monitoring:* Nevada County Planning Department

Implementation of mitigation measures **MM 3.4.6** (Habitat Management Plan), **MM 3.4.2e** (general avoidance and minimization measures), **MM 3.4.4** (mitigation for jurisdictional waters), and **MM 3.4.7** above would reduce impacts to sensitive habitats to a **less than significant** level.

**Conflicts with Local Policies or Ordinances Protecting Biological Resources (Other Than Protected Trees) (Standards of Significance 5)**

**Impact 3.4.8** Implementation of the proposed project is not expected to conflict with any local policies protecting biological resources. As such, there would be **no impact**.

Nevada County has not adopted any biological ordinances. The proposed project would not conflict with the County's General Plan policies protecting biological resources (see the summary of the project's consistency with applicable General Plan biological resource policies in **Appendix 3.0-1**). As such, **no impact** is anticipated and no mitigation is required. Please refer to Impact 3.4.6 for potential impacts to protected trees.

Mitigation Measures

None required.

**Conflicts with an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Any Adopted Biological Resources Recovery or Conservation Plan of Any Federal or State Agency (Standards of Significance 6)**

**Impact 3.4.9** Implementation of the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any adopted biological resources recovery or conservation plan of any federal or state agency. As such, there would be **no impact**.

The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **No impact** from the proposed project is anticipated and no mitigation is required.

Mitigation Measures

None required.

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### Hazardous Wildlife Interactions

**Impact 3.4.10** Implementation of the proposed project could create hazards for project site residents as a result of interactions with poisonous or dangerous wildlife on the site. This is a **potentially significant** impact.

The proposed project includes improved walking trails and soft surface trails throughout the project site as shown on **Figure 2.0-8** in Section 2.0, Project Description. Most rattlesnakes forage for prey in or near brushy or tall grass areas, rock outcrops, rodent burrows, around and under surface objects, and sometimes in the open. When inactive, most rattlesnakes seek cover in crevices of rocks, under surface objects, beneath dense vegetation, and in rodent burrows. Given that most of the trails wind through the undeveloped portions of the site, there is the potential for interactions between trail users and rattlesnakes.

While seldom fatal, rattlesnake bites are painful and can lead to severe medical trauma. Rattlesnake bites are not common — there are only about 800 rattlesnake bites reported annually in the United States and the majority of rattlesnake bites occur when people tease or play with their "pet" rattlesnakes. In the wild, rattlesnakes present little potential hazard as they are likely to move on to another area if left alone (UCIPM 2011). Therefore, if trail users on the project site were warned/educated to keep a safe distance from any rattlesnakes encountered on the trails, the potential for bites would be minimal. Therefore, the following mitigation is required.

#### Mitigation Measures

**MM 3.4.10** The project applicant shall include visually prominent signage along all trails on the project site warning trail users of rattlesnake hazards. Language on the sign shall include the following or similar: "WARNING: Rattlesnakes may be found in this area. They are important members of the natural community. If you see a rattlesnake, step away from it slowly. Rattlesnakes are not aggressive and will not attack unless disturbed or cornered. Avoid placing your hands where you cannot see them, and give rattlesnakes plenty of space."

*Timing/Implementation:*            *During construction activities*

*Enforcement/Monitoring:*        *Nevada County Planning Department*

Implementation of mitigation measure **MM 3.4.10** would ensure that trail users would be aware of the precautions necessary to prevent rattlesnake bites. Therefore, impacts would be reduced a **less than significant** level.

### **3.4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES**

#### **CUMULATIVE SETTING**

The cumulative setting for the project is the same as described under the discussion of biological communities in the Setting subsection, above.

#### **CUMULATIVE IMPACTS AND MITIGATION MEASURES**

Construction and maintenance activities associated with projects included in the region could result in the direct loss or indirect disturbance of special-status plants that are known to grow or that could grow in the region. Impacts on special-status plants could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. Proponents of specific projects in the region cannot guarantee that special-status plants can be avoided as part of future projects.

#### **Cumulative Impacts to Special-Status Plant Species (Standards of Significance 1 and 7)**

**Impact 3.4.11** Implementation of the proposed project in combination with other regional development could contribute to the loss of special-status plant species. This impact is **cumulatively considerable**.

As described under Impact 3.4.1, implementation of the proposed project could contribute to the loss of special-status plant species. This would be considered **cumulatively considerable**.

#### General Plan and Zoning Ordinance Text Amendments

The proposed General Plan and Zoning Ordinance text amendments are policy actions that would not directly result in disturbance to special-status plant species in the cumulative setting. However, as discussed in further detail in Section 4.0, Cumulative Impacts Summary, after implementation of the proposed project, CCRCs would be permitted in either a PD (Planned Development) or SDA (Special Development Area) land use designation with approval of a zone change. Currently, 22 areas in the county meet the acreage criteria for CCRCs per the proposed text amendments that could be proposed for CCRC use in the future.

Given that it is currently unknown which, if any, of these 22 areas would be proposed for CCRC development in the future, identification of site-specific impacts to special-status plant species resulting from the proposed text amendments would be speculative at this time. At a programmatic level, the environmental impacts associated with development of all PD and SDA designated areas in the county were analyzed in the Nevada County General Plan Environmental Impact Report, Volume I, SCH #1995102136 (1995). In addition, any future CCRC development projects would be required to submit a rezoning application in order to establish CCRC Combining District zoning for an individual CCRC use on any of the sites identified above. Such rezoning applications would be subject to further CEQA analysis of project-specific impacts (proposed Zoning Ordinance amendment Section L.II 2.7.11(C)(4)), including impacts to special-status plant species. It is reasonable to assume that future site-specific CEQA analysis would result in project-specific mitigation to address impacts.

Furthermore, all future CCRC development projects located elsewhere in the county would be required to be consistent with the proposed text amendments to the General Plan and Zoning Ordinance, which require CCRC projects to be clustered on the project site, with at least 50

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percent of the total project site (parcel) area to be contiguous open space where sensitive habitat areas and significant natural features can be preserved.

Given that the proposed text amendments would not directly impact plant species within the cumulative setting and that future CCRC developments would be subject to site-specific analysis of potential impacts to special-status plant species, cumulative impacts associated with the proposed General Plan and Zoning Ordinance text amendments are considered **less than cumulatively considerable**.

#### Mitigation Measures

Implementation of mitigation measure **MM 3.4.1** would offset the project's contribution to this impact and result in a **less than cumulatively considerable** impact.

#### **Cumulative Impacts to Special-Status Wildlife Species and Sensitive Habitats (Standards of Significance 1, 2, 3 and 7)**

**Impact 3.4.12** Development of the project location, in addition to anticipated cumulative development in the project vicinity, would result in disturbance to special-status wildlife species and sensitive habitats throughout the region. These impacts would be considered **cumulatively considerable**.

As presented in the impact discussions above (see Impacts 3.4.2 through 3.4.7), implementation of the proposed project would result in a loss of habitat and contribute to biological resource impacts, including disturbance of special-status species. Anticipated development and urban expansion of the area is expected to further contribute to disturbance to special-status species, their habitat, and other sensitive biological habitats and is considered potentially cumulative significant for impacts to biological resources. This impact would be **cumulatively considerable**.

#### General Plan and Zoning Ordinance Text Amendments

As described under **Impact 3.4.12** above, the proposed General Plan and Zoning Ordinance text amendments are policy actions that would not directly result in disturbance to special-status wildlife species and sensitive habitat in the cumulative setting. In addition, future CCRC developments would be subject to site-specific analysis of potential impacts to special-status plant species and would be required to be clustered on the project site, with at least 50 percent of the total project site (parcel) area to be contiguous open space where sensitive habitat areas and significant natural features can be preserved. Therefore, cumulative impacts to special-status wildlife species and sensitive habitat associated with the proposed General Plan and Zoning Ordinance text amendments are considered **less than cumulatively considerable**.

#### Mitigation Measures

Implementation of mitigation measures presented within this section, namely mitigation measures **MM 3.4.1** through **MM 3.4.7**, would reduce the project's overall contribution to cumulative biological resource impacts resulting from completion of the project to a **less than cumulatively considerable** level.

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