5 BIOLOGICAL RESOURCES

This chapter describes the common and sensitive vegetation, wildlife, and fisheries resources that occur, or have the potential to occur, in the study area. Federal, state, and local regulations related to biological resources are described, and the effects of the proposed project on vegetation, wildlife, and fisheries resources are analyzed. Mitigation measures are recommended to reduce potentially significant impacts to a less-than-significant level.

The information presented in this chapter is based on a site visit conducted by an Ascent biologist on October 12, 2010 and review of existing documentation, including: the California Natural Diversity Database (CNDDB) (CNDDB 2012), the California Native Plant Society (CNPS) *Electronic Inventory of Rare and Endangered Plants* (CNPS 2012), and other recent documents pertaining to biological resources in the region.

5.1 ENVIRONMENTAL SETTING

The Eastern Regional MRF and Transfer Station is located on 290 acres in the Sierra Nevada between Lake Tahoe and the town of Truckee, along the Truckee River drainage but outside of the Tahoe Basin. The region is predominately Jeffery pine forest managed by the U.S. Forest Service (USFS) (Tahoe National Forest and Lake Tahoe Basin Management Unit).

Much of the 290-acre property is undeveloped and about one-third is coniferous forest. The property is bound on its southern and eastern sides by National Forest System (NFS) land, which is managed by USFS. State Route (SR) 89 is located approximately 1,000 feet east of the study area, and the Truckee River runs parallel to SR 89 on its eastern side.

The study area for the biological resource assessment includes the project site, alternative project site, redundant well location, and the entire 290-acre Eastern Regional MRF and Transfer Station property. The actual project footprint, where ground-disturbance or other project activities would occur, would be substantially smaller than the study area.

5.1.1 LOCAL SETTING

SITE LOCATION AND DESCRIPTION

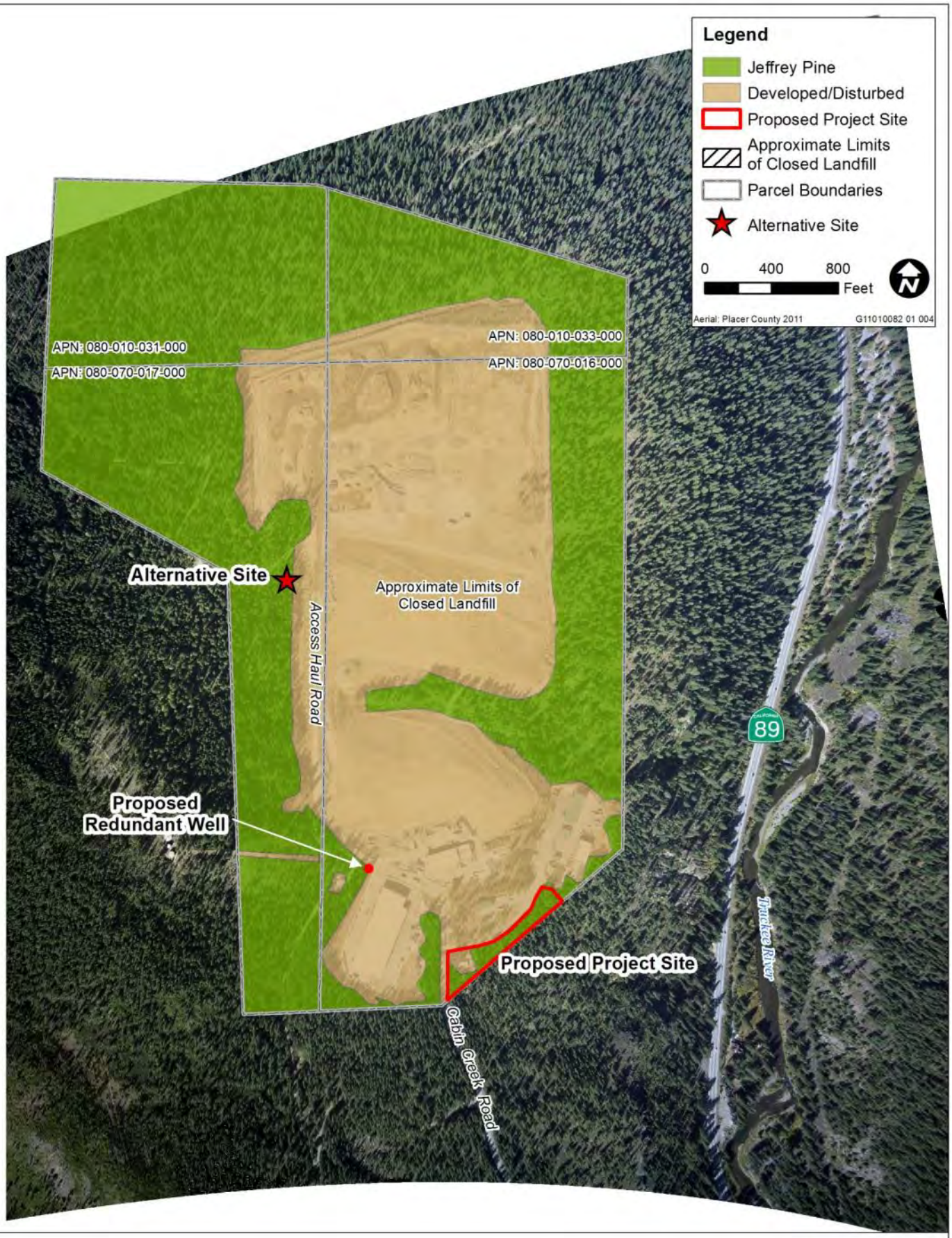
The project site includes 3.7 acres located along the southern boundary of the 290-acre Eastern Regional MRF and Transfer Station property. A temporary caretaker's residence and a cell tower are currently located on the site. The project site is otherwise undeveloped.

PHYSICAL FEATURES

The project site is located on a relatively flat portion of an easterly facing slope, sloping sharply upward to the west and descending to the east towards the Truckee River. As described in Chapter 13, Hydrology and Water Quality, most of the study area contains hydrologic soil type B, which has a moderately low runoff potential (NRCS 2009).

5.1.2 BIOLOGICAL COMMUNITIES

Nearly all of the Eastern Regional MRF and Transfer Station property has previously been developed and does not support native vegetation. The remainder of the study area consists of Jeffrey pine forest. Exhibit 5-1 shows the distribution of Jeffrey pine forest and disturbed areas in the study area.



Source: Adapted by Ascent Environmental in 2012

Exhibit 5-1 Vegetation and Land Cover in the Study Area

5.1.3 VEGETATION

The project site contains 1.87 acres of Jeffrey pine forest. Jeffrey pine forest consists of Jeffrey pine (*Pinus jeffreyi*) as the dominant canopy species, along with white fir (*Abies concolor*) as a subdominant species. Incense cedar (*Calocedrus decurrens*) is also present in the upper canopy. Shrub species including huckleberry oak (*Quercus vaccinifolia*), mahala mat (*Ceanothus prostratus*), green-leaf manzanita (*Arctostaphylos patula*), and tobacco brush (*Ceanothus velutinus*) grow in the forest understory in the study area. Exhibit 5-2 shows representative photos of the forest in the study area.

5.1.4 WILDLIFE

Common wildlife species expected to occur in the project vicinity include mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), coyote (*Canis latrans*), golden-mantled ground squirrel (*Spermophilus lateralis*), Steller's jay (*Cyanocitta stelleri*), mountain chickadee (*Poecile gambeli*), white-breasted nuthatch (*Sitta carolinensis*), and purple finch (*Carpodacus purpureus*).

5.1.5 SPECIAL-STATUS SPECIES

The CNDDB was used as the primary source to identify previously reported occurrences of special-status species in the project vicinity. The CNDDB is a statewide database, managed by the California Department of Fish and Game (DFG), that is continually updated with the location and condition of the state's rare and declining species and habitats. Although the CNDDB is the most current and reliable tool available for tracking occurrences of special-status species, it contains only those records that have been reported to DFG. Occurrences of sensitive biological resources documented in the CNDDB within a 5-mile radius of the project site are shown in Exhibit 5-3. A search of the CNPS online *Inventory of Rare and Endangered Plants* (CNPS 2012) was conducted as well.

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

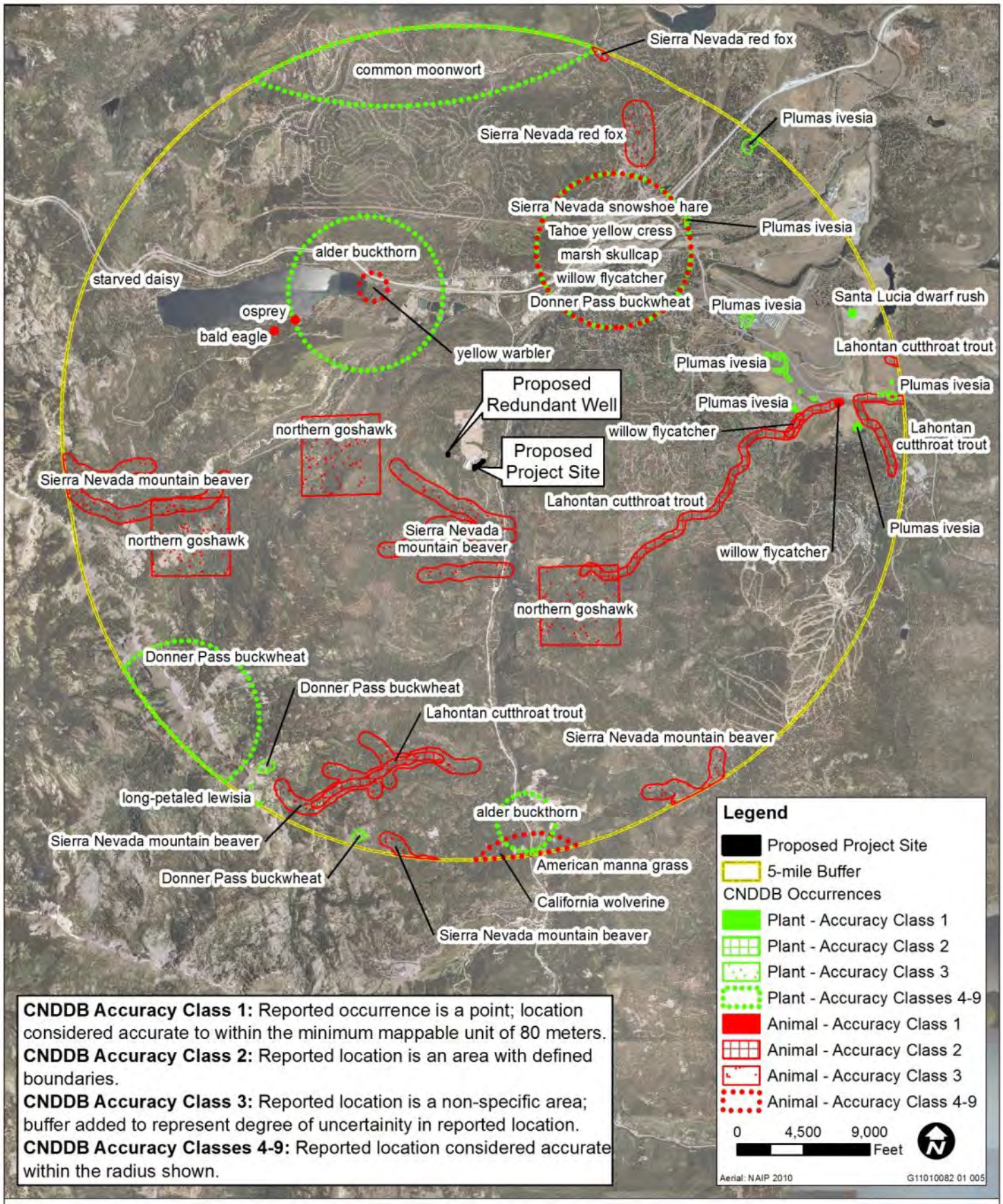
- Listed or proposed for listing as threatened or endangered under federal Endangered Species Act (ESA) or candidates for possible future listing;
- Listed or candidates for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA);
- Listed as Fully Protected under the California Fish and Game Code;
- Animals identified by DFG as species of special concern;
- Plants considered by DFG to be "rare, threatened, or endangered in California" (California Rare Plant Ranks of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; and 2, considered rare or endangered in California but more common elsewhere);
- Species considered sensitive by USFS;
- Identified as a Bird Species of Conservation Concern by U.S. Fish and Wildlife Service (USFWS);
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA Section 15125 [c]) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G); or
- Otherwise meets the definition of rare or endangered under CEQA Section 15380 (b) and (d).

Jeffery Pine Forest in the Project Vicinity (October 2010)

Jeffery Pine Forest in the Project Vicinity (April 2012)

Source: Photographs by Ascent Environmental in 2010 and 2012

Exhibit 5-2 Representative Photographs of Habitat Types in the Project Vicinity



Source: CNDDB 2012

Exhibit 5-3 Special-Status Species Occurrences within 5 miles of the Project Site

PLANTS

Searches of the CNDDB and CNPS online electronic inventory identified 28 special-status plant species that have been documented in the vicinity of the study area. The potential for each of these species to occur in the study area was determined and based primarily on the extent and quality of habitat in the study area; it was also based on the proximity of the study area to known extant occurrences of the species and the regional distribution and abundance of the species. The regulatory status, habitat and flowering period, and potential for occurrence of these species are summarized in Table 5-1. None of these species are known to occur in the study area, or have a moderate or high potential to occur in the study area due to high levels of disturbance, habitat modification, and marginal habitat conditions for those species.

Table 5-1 Special-Status Plant Species with Potential to Occur in the Project Vicinity

Scientific and Common Name	Regulatory Status[1]			Habitat and Flowering Period	Potential to Occur in the Study Area[2]
	Federal	State	Rare Plant Rank		
Arabis rigidissima var. *demota* Galena Creek rock cress	FSS	—	1B.2	Broad-leaved upland forest and upper montane coniferous forest on rocky sites; 2,255–2,560 meters (m). Blooms in August. Known in California from only two populations near Martis Peak.	Not expected to occur. Marginal habitat present in rocky areas within coniferous forest.
Botrychium ascendens Upswept moonwort	FSS	—	2.3	Coniferous forest in mesic substrates such as springs; 1,500–2,285 m. Fertile in August.	Not expected to occur. No suitable mesic forest habitat present.
Botrychium crenulatum Scalloped moonwort	FSS	—	2.2	Bogs and fens, mesic sites in lower montane coniferous forest, meadows and seeps, and freshwater marshes and swamps; 1,500–3,280 m. Identifiable June–September.	Not expected to occur. No suitable habitat present.
Botrychium lineare Slender moonwort	FSS	—	1B.3	Upper montane coniferous forest, often in disturbed areas; 2,600 m. Fertile period not known.	Not expected to occur. No suitable forest habitat present and elevations of known occurrences exceed those in the study area.
Botrychium lunaria Common moonwort	FSS	—	2.3	Subalpine and upper montane coniferous forest, meadows and seeps; 2,280–3,400 m. Fertile in August.	Not expected to occur. No suitable mesic forest habitat present and elevations of known occurrences exceed those in the study area.
Botrychium minganense Mingan moonwort	FSS	—	2.2	Lower montane and upper montane coniferous forest in mesic soils; 1,500–2,055 m. Fertile July–September.	Not expected to occur. No suitable mesic forest habitat present.

Table 5-1 Special-Status Plant Species with Potential to Occur in the Project Vicinity

Scientific and Common Name	Regulatory Status[1]			Habitat and Flowering Period	Potential to Occur in the Study Area[2]
	Federal	State	Rare Plant Rank		
Botrychium montanum Western goblin	FSS	—	2.1	Lower montane and upper montane coniferous forest in mesic soils; 1,500–2,130 m. Fertile July–September.	Not expected to occur. No suitable mesic forest habitat present.
Bruchia bolanderi Bolander's brushia	FSS	—	2.2	Lower montane coniferous forest in mesic soils; 1,706–2,743 m. Fertile period not specified.	Not expected to occur. No suitable mesic forest habitat present.
Draba asterophora var. *asterophora* Tahoe draba	FSS	—	1B.2	Alpine boulder and rock fell field, subalpine coniferous forest; 2,500–3,505 m. Blooms July–September.	Not expected to occur. No suitable subalpine habitat present and elevations of known occurrences exceed those in the study area.
Draba asterophora var. *macrocarpa* Cup Lake draba	FSS	—	1B.1	Subalpine coniferous forest; 2,500-2,815 m. Blooms July–August.	Not expected to occur. No suitable subalpine habitat present and elevations of known occurrences exceed those in the study area.
Epilobium howellii Subalpine fireweed	FSS	—	4.3	Subalpine coniferous forest, meadows and seeps; 2,000–2,700 m. Blooms July–August.	Not expected to occur. No suitable subalpine or meadow habitat present.
Epilobium oreganum Oregon fireweed	—	—	1B.2	Bogs and fens and mesic sites within upper and lower montane coniferous forest. 500–2,240 m. Blooms June-September.	Not expected to occur. No suitable habitat present.
Erigeron miser Starved daisy	FSS	—	1B.3	Upper montane coniferous forest in rocky soils; 1,840–2,620 m. Blooms June to October.	Low. Marginal habitat present.
Erigeron nevadincola Nevada daisy	—	—	2.3	Great Basin scrub, lower montane coniferous forest, and rocky sites in pinyon and juniper woodland. 1,400–2,900 m. Blooms May–July.	Low. Marginal habitat present.
Eriogonum umbellatum var. *torreyanum* Donner Pass buckwheat	FSS	—	1B.2	Rocky, volcanic substrate in meadows and upper montane coniferous forest. 1,855–2,620 m. Blooms July–September. Known, from fewer than 10 occurrences.	Low. Marginally suitable habitat present.
Glyceria grandis American manna grass	—	—	2.3	Bogs, fens, meadows, marshes, swamps, streambanks, and lake margins. 1,500–1,980 m. Blooms June–August.	Not expected to occur. No suitable habitat present.

Table 5-1 Special-Status Plant Species with Potential to Occur in the Project Vicinity					
Scientific and Common Name	Regulatory Status[1]			Habitat and Flowering Period	Potential to Occur in the Study Area[2]
	Federal	State	Rare Plant Rank		
Hulsea brevifolia Short-leaved hulsea	FSS	—	1B.2	Lower and upper montane coniferous forest often on slate; 1,500-3,200 m. Blooms May–August.	Not expected to occur. No suitable coniferous forest and substrate habitat present.
Ivesia sericoleuca Plumas ivesia	—	—	1B.2	Vernally mesic, usually volcanic substrate in Great Basin scrub, lower montane coniferous forest, meadows, and vernal pools. 1,465–2,200 m. Blooms May–September.	Not expected to occur. No suitable habitat present.
Juncus luciensis Santa Lucia dwarf rush	—	—	1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools. Blooms April–July.	Low. Marginal habitat present.
Lewisia longipetala Long-petaled lewisia	FSS	—	1B.3	Alpine boulder and rock field, subalpine coniferous forest; 2,500–2,925 m. Blooms July–August.	Not expected to occur. No suitable subalpine habitat present and elevations of known occurrences exceed those in the study area.
Meesia triquetra Three-ranked hump moss	FSS	—	4.2	Bogs and fens, meadows and seeps, upper montane coniferous forest on mesic soil; 1,300–2,500 m. Fertile period not specified.	Not expected to occur. No suitable forest or meadow habitat present.
Meesia uliginosa Broad-nerved hump moss	FSS	—	2.2	Bogs and fens, meadows and seeps, upper montane coniferous forest on mesic soil; 1,300–2,500 m. Fertile period not specified.	Not expected to occur. No suitable forest or meadow habitat present.
Peltigera hydrothyria Veined water lichen	FSS	—	—	Cold, unpolluted streams and springs in coniferous forest.	Not expected to occur. No suitable forest or aquatic habitat present.
Potamogeton filiformis Slender-leaved pondweed	—	—	2.2	Assorted shallow freshwater marshes and swamps; 300–2,150 m. Blooms May–July.	Not expected to occur. No suitable habitat present.
Rhamnus alnifolia Alder buckthorn	—	—	2.2	Lower montane coniferous forest, meadows and seeps, riparian scrub, and upper montane coniferous forest. Blooms May–July.	Low. Marginal habitat present.
Rorippa subumbellata Tahoe yellow cress	FC, FSS	CE	1B.1	Decomposed granitic beaches. Endemic to Lake Tahoe beaches; 1,895–1,900 m. Blooms May–September.	Not expected to occur. No suitable habitat present.

Table 5-1 Special-Status Plant Species with Potential to Occur in the Project Vicinity

Scientific and Common Name	Regulatory Status[1]			Habitat and Flowering Period	Potential to Occur in the Study Area[2]
	Federal	State	Rare Plant Rank		
Scutellaria galericulata Marsh skullcap	—	—	2.2	Mesic sites in lower montane coniferous forest, meadows, and marshes and swamps; 0–2,100 m. Blooms June–September.	Not expected to occur. No suitable habitat present.
Sphaeralcea munroana Munro's desert mallow	—	—	2.2	Great Basin scrub; 2,000 m. Blooms May–June. Known in California only from Squaw Creek.	Not expected to occur. No suitable habitat present.

[1] Regulatory Status Codes:
Federal:
FC = Candidate for listing as a threatened or endangered species under the federal ESA
FSS = Sensitive Species by USFS Region 5 (no formal protection other than CEQA consideration)
State:
CE = Endangered, formally protected by the California Endangered Species Act (CESA)
Rare Plant Ranks: (no formal protection other than CEQA consideration)
1B = Plants rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California, but more common elsewhere
3 = Plants about which we need more information – a review list
4 = Plants of limited distribution – a watch list
Threat Ranks:
- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2-Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[2] Potential Occurrence Definitions:
Present – Species has been recently documented on the site by a reputable source, or was observed during site visits conducted for this analysis.
High – All of the species' specific life history requirements can be provided for by habitat present on the site and populations are known to occur in the immediate vicinity.
Moderate – Some or all of the species life history requirements are provided by habitat on the site; populations may not be known to occur in the immediate vicinity, but are known to occur in the region.
Low – Species not likely to occur due to marginal habitat quality or distance from known distribution.
Not expected to occur – None of the species' life history requirements are provided by habitat on the site and/or the site is outside of the known distribution of the species. Any occurrence would be very unlikely.
Sources: CNDDB 2012; CNPS 2012, USFS 2007

WILDLIFE

The initial data and literature review identified 22 special-status wildlife and fish taxa that could occur in the project vicinity. The potential for each of these species to occur in the study area was determined and based primarily on the extent and quality of habitat in the study area; it was also based on the proximity of the study area to known extant occurrences of the species and the regional distribution and abundance of the species. The regulatory status, habitat associations, and potential for occurrence of these species are summarized in Table 5-2. Only two of these species, white-headed woodpecker and olive-sided flycatcher have moderate potential to occur in the study area. The other species have low potential or are not expected to occur due to high levels of disturbance, habitat modification, and marginal habitat conditions for those species.

Table 5-2 Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity

Scientific and Common Names	Regulatory Status[1]		Habitat Associations	Potential to Occur in the Study Area[2]
	Federal	State		
Amphibians				
Rana sierra Sierra Nevada yellow-legged frog	FC, FSS	CE CSC	Occurs in streams, lakes, and ponds in upper montane and riparian forests of Sierra Nevada. Found within a few feet of water.	Not present. No suitable aquatic habitat present.
Rana pipiens Northern leopard frog *(native populations only)*	FSS	CSC	Prefers permanent water with abundant aquatic vegetation. Occurs also in wet meadows, bogs, potholes, and reservoirs.	Not present. No suitable aquatic habitat present.
Fish				
Oncorhynchus clarki henshawi Lahontan cutthroat trout	FT	—	Historically occurred in Lake Tahoe and all accessible coldwater streams in the Lahontan Basin. Requires gravels and riffles for spawning and generally does not occur with other salmonids. Currently limited to a few tributaries of the Truckee, Carson, and Walker Rivers.	Not present. No suitable aquatic habitat present.
Gila bicolor pectinifer Lahontan Lake tui chub	FSS	CSC	Found in Lake Tahoe, spawns in shallow near-shore environments with aquatic vegetation.	Not present. No suitable aquatic habitat present.
Birds				
Haliaeetus leucocephalus Bald eagle *(nesting and wintering)*	BGEPA FSS BCC	CE FP	Uses ocean shorelines, lake margins, and river courses for both nesting and wintering. Most nests are within 1 mile of water in large trees with open branches. Roosts communally in winter.	Low potential to occur in project vicinity, not expected to nest in the study area.
Aquila chrysaetos Golden eagle *(nesting and wintering)*	BGEPA BCC	FP	Uncommon resident or migrant throughout California and Nevada from sea level to 11,000 feet. Hunts in open terrain, mountains, canyons, etc.	Low potential to occur in project vicinity, not expected to nest in the study area. No suitable breeding habitat; may occasionally pass through or forage in project vicinity.
Accipiter gentilis Northern goshawk *(nesting)*	FSS	CSC	Mature conifer forests with large trees, snags, downed logs, dense canopy cover, and open understories for nesting; also aspen stands. Dense to moderately open forests with, and open understories for foraging. Reuse old nest structures and maintain alternate nest sites.	Low potential to occur in the study area; occurs in the vicinity.
Strix occidentalis occidentalis California spotted owl	FSS BCC	CSC	Mixed conifer, ponderosa pine, red fir and montane hardwood with dense canopy closure (i.e., >70%) and multi-storied stands. Foraging habitat can include intermediate to late-successional forest with greater than 40% canopy cover.	Low potential to occur in the study area due to disturbance from the existing Eastern Regional MRF and Transfer Station; occurs in the vicinity.

Table 5-2 Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity

Scientific and Common Names	Regulatory Status[1]		Habitat Associations	Potential to Occur in the Study Area[2]
	Federal	State		
Strix nebulosa Great gray owl *(nesting)*	FSS	CE	Mature mixed conifer forests near meadows. Scattered along the west slope of the Sierra between 4,500–7,500 feet from Plumas County to Yosemite.	Not expected to occur. Suitable habitat is not present in the study area.
Melanerpes lewis Lewis' woodpecker *(nesting)*	BCC	—	Open woodlands and forests, often logged or burned, including oak, coniferous forest, riparian woodlands, and orchard edges.	Not expected to occur. Uncommon nester in the western portion of Sierra. No suitable nesting habitat present.
Picoides albolarvatus White-headed woodpecker *(nesting)*	BCC	—	Mature coniferous forests, especially pine and fir.	Moderate potential to nest in the study area.
Contopus cooperi Olive-sided flycatcher *(nesting)*	BCC	CSC	Montane forests dominated by ponderosa pines, sugar pines, douglas firs, and red and white firs.	Moderate potential to nest in the study area.
Empidonax traillii Willow flycatcher *(nesting)*	FSS BCC	CE	Nests and breeds in dense stands of willow near wet meadows.	Not expected to occur. No suitable habitat present.
Dendroica petechia brewsteri Yellow warbler *(nesting)*	BCC	CSC	Nests and forages in riparian stands of willows, cottonwoods, aspens, and alders. Occasionally found in montane chaparral.	Not expected to occur. No suitable nesting habitat present.
Mammals				
Gulo gulo luteus California wolverine	FC FSS	CT FP	Inhabits upper montane and alpine habitats of Sierra Nevada, Cascades, Klamath, and north Coast Ranges. Needs water source and denning sites. Rarely seen. Sensitive to human disturbance.	Not expected to occur due to human activity in study area.
Martes Americana American marten	FSS	—	Dense, mixed conifer forests in Sierra Nevada, north Coast Ranges, Cascades, and Klamath Mountains. Prefers old growth stands with multiple age classes in vicinity.	Low potential to occur in project vicinity, not expected to occur in the study area. High disturbance levels and lack of refuges (snags, downed logs, etc) limit the potential for this species to occupy the study area.
Martes pennanti pacifica Pacific fisher	FC, FSS	CSC	Stands of pine, Douglas fir, and true fir, in northwestern California and Cascade-Sierra ranges. Fishers do not occur through much of the Central and Northern Sierra Nevada (Zielinski et al. 1995).	Not expected to occur. No suitable habitat present.
Corynorhinus townsendii Townsend's big-eared bat	FSS	CSC	Ranges throughout California mostly in mesic habitats. Limited by available roost sites, such as caves, tunnels, mines, and buildings.	Not expected to occur. No suitable roost sites in the study area.

Table 5-2 Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity

Scientific and Common Names	Regulatory Status[1]		Habitat Associations	Potential to Occur in the Study Area[2]
	Federal	State		
Aplodontia rufa californica Sierra Nevada mountain beaver	—	CSC	Dense growth of small deciduous trees and shrubs near permanent water throughout the Sierra Nevada, Cascades, and Klamath Mountains. Burrows in soft soil.	Not expected to occur. No suitable habitat (permanent water) is available.
Lepus americanus tahoensis Sierra Nevada snowshoe hare	—	CSC	Upper montane coniferous and riparian forests in the northern and central Sierra Nevada.	Low. Marginal habitat present. Not reported in project vicinity.
Lepus towsendii Western white-tailed jackrabbit	—	CSC	Uncommon or rare resident of the Sierra Crest and the eastern slopes of the Sierra. Sagebrush, juniper, subalpine conifer, alpine dwarf-shrub, and perennial grasslands are preferred habitats.	Not expected to occur. Preferred habitat not present.
Vulpes vulpes necator Sierra Nevada red fox	FSS	CT	Upper montane coniferous forests of the Sierra Nevada and Cascade Mountains of California.	Not expected to occur at project site due to low elevation and level of human activity.

[1] Regulatory Status Codes:
Federal: BCC = Bird of Conservation Concern by USFWS (no formal protection other than CEQA consideration)
BGEPA = Legally protected under the Bald and Golden Eagle Protection Act
FC = Candidate for listing as a threatened or endangered species under the federal ESA
FSS = Sensitive Species by USFS Region 5 (no formal protection other than CEQA consideration)
FT = Threatened, formally protected by the federal Endangered Species Act (ESA)
State: CE = Endangered, formally protected by the California Endangered Species Act (CESA)
CSC = California Species of Concern by DFG (no formal protection other than CEQA consideration)
CT = Threatened, formally protected by the California Endangered Species Act (CESA)
FP = Fully Protected species (legally protected under Fish and Game Code)
[2] Potential Occurrence Definitions:
Present – Species has been recently documented on the site by a reputable source, or was observed during site visits conducted for this analysis.
High – All of the species' specific life history requirements can be provided for by habitat present on the site including forage, cover, breeding habitat, etc. Populations are known to occur in the immediate vicinity, are likely to use the site frequently, and breeding populations could occur.
Moderate – Most or all of the species life history requirements are provided by habitat on the site and populations are likely to occur or use the site seasonally. Moderate potential sites may be further from known populations, or may be lacking certain habitat elements.
Low – Species not likely to occur due to marginal habitat quality or distance from known range. Individuals may use the site occasionally, but breeding populations are unlikely and high use is not expected at any time of year.
Not expected to occur – None of the species' life history needs can be met by habitat on the site and/or the site is well outside of the known range for the species. Any occurrence would be migratory and very unlikely.
Source: CNDDB 2012, DFG 2011, USFWS 2008, USFS 2007

5.1.6 SENSITIVE HABITATS

Sensitive habitats are natural plant communities of limited distribution statewide or within a county or region that provide important habitat value to native species. Most types of wetlands and riparian communities are considered sensitive habitats due to their limited distribution in California. In addition, sensitive natural communities include habitats that are subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the Clean Water Act (CWA), Section 1602 of the California Fish and Game Code, and the state's Porter-Cologne Water Quality Control Act, which protects waters of the state. Sensitive natural communities are of special concern because they have high potential to support special-status plant and animal species. Sensitive natural communities can also provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality.

On the eastern side of the study area, two intermittent drainages convey water through the Jeffrey pine forest from the existing landfill site to the Truckee River. They do not support riparian woodland vegetation, but they

are considered sensitive habitats due to the presence of wetlands. These drainages are not located on project site. No other sensitive habitats occur in the study area.

WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are considered an important ecological resource by various agencies (i.e., DFG, USFWS, USFS, and Placer County) and under CEQA. Ecological corridors have been addressed in several conservation biology and landscape planning applications. As landscapes become increasingly fragmented, organisms that occupy remaining patches of suitable habitat may experience a reduction in habitat quality and area, and become at risk to processes that affect small or isolated populations (see Soule 1987; Hanski and Gilpin 1997). These processes may include changes in microclimates, limits to daily or seasonal movements, inbreeding depression, and random demographic or environmental catastrophes. These factors can result in increased mortality or local extinction of populations. Protecting and managing ecological corridors that link core areas of habitat, and facilitate movement or dispersal among habitat patches, has been widely proposed to reduce the adverse effects of 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. Stream corridors may often used by wildlife as movement corridors.

Nearly all of the study area is disturbed and developed, and provides very low value for wildlife. The existing development and operation of the Eastern Regional MRF and Transfer Station reduces the likelihood of wildlife using the study area as an important movement corridor.

A migratory deer herd, the Loyalton-Truckee deer herd, inhabits northeastern Placer County. Based on a review of a map prepared by the Placer County Fish and Game Commission and included in the *Placer County General Plan Background Report* (Placer County 1994b), it appears that the study area is not located in or near a known fawning or holding area. The closest mapped major migration routes are located east of SR 89.

5.1.7 FEDERAL RECOVERY PLANS AND CRITICAL HABITAT

The study area does not include any federally designated critical habitat or recovery areas identified in recovery plans for listed species. Critical habitat for California red-legged frog is designated in the Tahoe National Forest, over 30 miles from the study area (USFWS 2010). The Recovery Plan for Lahontan Cutthroat Trout does not include any actions within the study area (USFWS 1995).

5.2 REGULATORY SETTING

Biological resources are protected and/or regulated by a variety of federal, state, and local laws and policies. Key regulatory and conservation planning issues applicable to the proposed project are discussed below.

5.2.1 FEDERAL

FEDERAL ENDANGERED SPECIES ACT

The USFWS regulates the taking of a species listed as threatened or endangered under the ESA. In general, persons subject to ESA (including private parties) are prohibited from “taking” endangered or threatened fish and wildlife species on private property, and from “taking” endangered or threatened plants in areas under Federal jurisdiction or in violation of state law. Under ESA, the definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has also interpreted the definition of “harm” to include significant habitat modification that could result in take. If a

proposed project would result in take of a Federally-listed species, the project applicant must acquire an incidental-take permit, under Section 10(a) of ESA, or if a federal discretionary action is involved, the federal agency consults with USFWS under Section 7 of the ESA.

BALD AND GOLDEN EAGLE PROTECTION ACT

The Bald and Golden Eagle Protection Act declares it is illegal to take bald eagles, including their parts, nests, or eggs unless authorized. “Take” is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. “Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment” (USFWS 2008:31156). In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

SECTION 404 OF THE CLEAN WATER ACT

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

SECTION 401 WATER QUALITY CERTIFICATION

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

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all migratory birds native to the United States.

5.2.2 STATE

CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) prohibits the taking of state-listed endangered or threatened species, as well as candidate species being considered for listing. Project proponents may obtain a Section 2081 incidental take permit if the impacts of the take are minimized and fully mitigated, and the take would not jeopardize the continued existence of the species. A "take" of a species, under CESA, is defined as an activity that would directly or indirectly kill an individual of a species. The CESA definition of take does not include "harm" or "harass" as is included in the federal act. As a result, the threshold for a take under CESA may be less stringent than under ESA.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs prepare and periodically update basin plans for water quality control. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. RWQCB jurisdiction includes waters of the United States as well as areas that meet the definition of "waters of the state." Waters of the state is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under Clean Water Act Section 404 provided they meet the definition of waters of the state. Mitigation requiring no net loss of wetlands functions and values of waters of the state is typically required by the RWQCB.

SECTION 1602 OF THE CALIFORNIA FISH AND GAME CODE

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by DFG under Sections 1600 et seq. of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by DFG, or use any material from the streambeds, without first notifying DFG of such activity and obtaining a final agreement authorizing such activity. "Stream" is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. DFG's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

FULLY PROTECTED SPECIES

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take. DFG has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species.

PROTECTION FOR BIRD NESTS AND RAPTORS

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal Migratory Bird Treaty Act.

5.2.3 LOCAL

PLACER COUNTY GENERAL PLAN

The following policies in the *Placer County General Plan* (Placer County 1994a) are relevant to the project for biological resources. Refer to Table 4-1 in Chapter 4, Land Use, for analysis of project consistency with relevant General Plan policies.

WATER RESOURCES

- **Policy 6.A.7.** The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

FISH AND WILDLIFE HABITAT

- **Policy 6.C.1.** The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:
  a. wetland areas including vernal pools;
  b. stream environment zones;
  c. any habitat for rare, threatened, or endangered animals or plants;
  d. critical deer winter ranges (winter and summer), migratory routes, and fawning habitat;
  e. large areas of nonfragmented natural habitat, including blue oak woodlands, valley foothill riparian, and vernal pool habitat;
  f. identifiable wildlife movement zones, including but not limited to nonfragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway; and
  g. important spawning areas for anadromous fish.
- **Policy 6.C.6.** The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special-status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.
- **Policy 6.C.7.** The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or nongame species, through maintenance of habitat diversity.

VEGETATION

- **Policy 6.D.6.** The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.
- **Policy 6.D.8.** The County shall require that new development preserve natural woodlands to the maximum extent possible.

PLACER COUNTY CONSERVATION PLAN

Placer County has applied to receive approval from the federal wildlife agencies for a comprehensive natural communities conservation plan known as the Placer County Conservation Plan (PCCP). The County is currently preparing a Draft Policy Document and Draft EIR for the PCCP. When approved and implemented, the PCCP would establish an interconnected open-space preserve system in western Placer County that is designed specifically to offset impacts to special-status species and protected habitats that are anticipated to occur as a

result of the planned growth of Placer County and the City of Lincoln. The study area is not located within the boundary of the PCCP (Placer County 2009).

PLACER COUNTY TREE ORDINANCE

Placer County's Tree Ordinance (Placer County Code, Article 12.16) exists "to preserve and protect the remaining native oak and other species of trees within Placer County." The ordinance is applicable to all native, landmark trees, riparian zone trees, and certain commercial firewood operations, except as exempted in cases of public safety, designated commercial lots (e.g., Christmas tree farms), and bona fide active agricultural uses.

As stated in the Tree Ordinance (12.16.030[D]), "except for developed, single-family residential lots that cannot be subdivided, the removal of more than 50% of existing native trees, 6 inches diameter at breast height (dbh) or greater, shall be subject to the issuance of a tree permit."

5.3 IMPACTS

5.3.1 SIGNIFICANCE CRITERIA

Based on Placer County's Environmental Questionnaire and Appendix G of the CEQA Guidelines, the proposed project was determined to result in a significant impact to biological resources if it would:

- Substantially reduce the habitat of a fish or wildlife species;
- Cause a fish or wildlife species to drop below self-sustaining levels;
- Threaten to eliminate a plant or animal community;
- Substantially reduce the number or restrict the range of an endangered, rare, or threatened species;
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the DFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by DFG or USFWS;
- Have a substantial adverse effect on federally-protected wetlands, as defined by Section 404 of the Clean Water Act, through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State conservation plan.

Placer County has adopted general plan goals and policies for vegetation, wildlife, and fisheries resources as discussed previously in Section 5.2, Regulatory Setting. A conflict with these goals, policies, and ordinances would be a significant impact. The project's consistency with these policies is discussed in Table 4-1 in Chapter 4, Land Use.

5.3.2 METHODS AND ASSUMPTIONS

Potential impacts on biological resources resulting from project construction were determined by evaluating the project plans in relation to the habitat characteristics of the study area, quantifying potential loss of common and sensitive habitats, and evaluating potential effects to common and special-status species that could result from this habitat loss. The number of trees and canopy cover on the project site were estimated by examining

color aerial imagery (date June 2011). Operational impacts to biological resources were evaluated by comparing projected noise, truck trips, and other operational activities of the proposed biomass plant to existing disturbance levels.

5.3.3 ISSUES OR POTENTIAL IMPACTS NOT DISCUSSED FURTHER

Section 5.1, Environmental Setting, discusses all special-status plants, wildlife, and fish species evaluated in this analysis, and Tables 5-1 and 5-2 summarize the potential for each of these species to occur in the study area. Those plant, wildlife, and fish species not expected or with a low probability to occur (because of a lack of suitable habitat or lack of other occurrence records) are not addressed further in this analysis. Implementation of any project alternative is not expected to affect those species.

Wetlands and other sensitive habitats are located within the study area, but outside of the project site. Therefore, implementation of the project would not affect sensitive natural communities, wetlands, or other waters of the United States. The redundant well would be installed within a previously disturbed area and would not affect biological resources. These issues are not discussed further in the EIR.

Project implementation is not expected to interfere substantially with the movement of any native resident or migratory wildlife species because the project site does not contain any wildlife movement corridors and the surrounding land use is primarily forest. The site also does not contain any known wildlife nurseries, such as deer fawning sites. This issue is not discussed further in the EIR.

The project site is not located within the boundary of the PCCP; therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State conservation plan. This issue is not discussed further in the EIR.

5.3.4 IMPACT ANALYSIS

Impact 5-1	**Disturbance to Nesting Birds and Potential Loss of Individuals.** Tree removal and ground-disturbing activities related to construction of the project would result in removal of potential nesting habitat for common and special-status birds. Habitat destruction and disturbance could result in the abandonment of nest sites and loss of eggs or young. This is considered a **significant** impact.

Construction activities related to the proposed project would include disturbance and/or removal of approximately 1.87 acres of Jeffrey pine forest that could provide nesting sites for common and special-status birds that are protected under Section 3503.5 of the California Fish and Game Code. Special-status birds that could nest on site include white-headed woodpecker and olive-sided flycatcher. Both of these species are considered Birds of Conservation Concern by USFWS. Olive-sided flycatcher is also considered a species of special concern by DFG. Common species such as western tanager (*Piranga ludoviciana*) and pine siskin (*Carduelis pinus*) could nest in the study area. If active bird nests are present during tree removal and other ground disturbing activities in and adjacent to the Jeffrey pine forest, project construction could disturb nesting birds. Disturbance to nesting birds could result in nest abandonment by the adults and mortality of young or eggs. This impact would be **significant**.

Impact 5-2	Conflict with Placer County Tree Ordinance. Implementation of the project would result in the disturbance and/or loss of approximately 1.87 acres of Jeffrey pine forest (approximately 44 trees). Placer County trees are protected under the *Placer County General Plan* and the County's Tree Ordinance. While the removal of these trees would not represent a substantial reduction of habitat, and the surrounding area provides similar and abundant habitat, their removal would represent a conflict with the County's Tree Ordinance. As such, this impact would be potentially significant.

With implementation of the proposed project, approximately 1.87 acres of Jeffrey pine forest on the project site would be cleared and graded in preparation for construction of proposed project facilities. Approximately 44 trees would be removed from the project site.

The *Placer County General Plan* contains policies that aim to preserve and protect the valuable vegetation resources of Placer County (Placer County 1994a). Specifically, General Plan Policy 6.D.6 directs the County to ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife. General Plan Policy 6.D.8 requires that new development preserve natural woodlands to the maximum extent possible. Jeffrey pine forest is considered both native and natural woodland.

The County's Tree Ordinance is applicable to all native, landmark trees, riparian zone trees, and certain commercial firewood operations. In accordance with the Tree Ordinance, a tree permit is required if a project would remove more than 50% of existing native trees, 6 inches dbh or greater. As noted above, the proposed project would remove all trees from the site, approximately 44 trees. Therefore, a tree permit would be required before any trees could be removed from the project site for project development.

The removal of approximately 1.87 acres of Jeffrey pine forest would not represent a substantial reduction of habitat, and the surrounding area provides similar and abundant habitat; however, their removal would represent a conflict with the County's Tree Ordinance. Therefore, this impact would be **potentially significant**.

Impact 5-3	Modification of Forest Habitat Through Use of Woody Biomass. The fuel source for the proposed biomass facility would be woody biomass acquired primarily from hazardous fuel removal, forest thinning, and other forest management activities. Removal of woody biomass from the surrounding forests could modify habitat for common and special-status species, degrade sensitive habitats, and/or result in fill of jurisdictional waters of the United States. However, forest projects that would generate the woody biomass are separate projects independent from the proposed project, and are subject to separate environmental review and permitting. The generation of woody biomass would occur regardless of the proposed biomass project. Disposal of the woody biomass at the proposed facility in lieu of other disposal methods such pile burning would not have a substantial affect on biological resources. Therefore, the use of the forest residuals as a fuel source for the project is considered to have a less-than-significant impact on biological resources.

The proposed biomass facility would use woody biomass derived from forest sources and clean urban sources. The forest sources would include forest residuals generated from hazardous fuel reduction, forest thinning for stand-level management, wildlife habitat enhancement, or other forest management activities conducted by the Tahoe National Forest (TNF) and Lake Tahoe Basin Management Unit (LTBMU) of USFS. Placer County's intention is to primarily use biomass generated from these USFS projects especially in light of the substantial sources of these materials to meet the facilities needs over the next 10 to 15 years; however, over its lifetime, the biomass

facility may use clean urban sources of fuels, such as tree trimmings, pine needles, and clean (untreated) construction and demolition wood (e.g., pallets), and forest sources on state or private land as well.

Forest management activities have the potential to modify habitat for common and special-status species by removing dense underbrush, thinning canopy cover, and shifting vegetation composition within stands over time. These changes in vegetation composition and structure affect habitat suitability and wildlife community. Forest management activities, especially when using mechanized equipment, also have potential to affect sensitive habitats, including wetlands, riparian habitat, or other sensitive natural communities through vegetation removal, compaction of soil, erosion, or hydrological disruption.

The project would not affect the management objectives or planning process for USFS (Conway, pers. comm. 2012; Fournier, pers. comm. 2012). USFS undertakes forest projects to achieve specific goals, such as hazardous fuels reduction, enhancement of wildlife habitat, scenic integrity, stand-level management, or other objectives. The prescriptions for forest management are developed by USFS at the local, management-unit level based on an inventory of existing resources and a desired future condition for the resources. Many projects have multiple objectives and these objectives direct the actions that USFS undertake. As a result of the implementing the forest management projects, woody biomass (e.g., shrubs, branches, trees, other forest residuals) is generated and requires disposal.

Common methods of woody biomass disposal include pile and open burn, mastication, chipped and spread on site, landfill, saw mill if the wood is merchantable, or biomass facility. With the closure of biomass plants in Loyalton and Carson City, TNF and LTBMU are currently not able to dispose of the woody debris generated from their forest management projects at a biomass facility because transportation costs prohibit hauling material to an operational facility, such as facilities located in Quincy, Rocklin, or Lincoln.

The proposed biomass facility would provide an option for disposal of woody biomass generated from forest projects, but would not influence what forest management activities are conducted by USFS. The USFS planning process would continue to be a separate process that includes identification of specific management goals, prescriptions for forest management, and environmental review. Similarly, forest projects conducted on state or private land would require environmental review and compliance with regulations pertinent to forest management (i.e., Z'Berg-Nejedly Forest Practices Act and California Forest Practices Rules).

The proposed project would not harvest forest residuals and would not otherwise directly cause specific fuel reduction or forest management projects to occur; rather, the proposed project would enable waste products from independent forest projects to be sold as biomass fuel instead of requiring an alternate disposal mechanism (e.g., pile and burned). The woody biomass fuel source for the proposed project would be derived from independent projects that would be required to be in compliance with existing laws and regulations. The projects that could generate forest residuals for use as biomass would occur regardless of whether or not the proposed facility is in operation. In the absence of the proposed project, the residual forest material could be burned in piles, chipped in place, or otherwise discarded. The project's demand for forest residual biomass would be highly unlikely to change the forest management goals of TNF, LTBMU, or other land managers because supplying biomass fuel is not a management directive of the USFWS, California Tahoe Conservancy, California State Parks, or other local forest manager. That is, these agencies are not dependent upon the operation of biomass facilities to determine the specific forest management practices that would be implemented. The planning process for these agencies, in which certain goals and objectives are identified and methods are prescribed to create a desired condition of forest stands, would not change as a result of the project (Conway, pers. comm., Fournier, pers. comm.).

In addition, the relatively small size of the proposed facility would not result in an increased demand for woody biomass to the extent that any economic benefit could be realized by increasing production of biomass material.

Therefore, the disposal of woody biomass at the proposed facility would not result in the changes to forest management that could affect biological resources. Therefore, the use of woody biomass as a fuel source would be **less than significant**.

Impact 5-4	Operational Effects on Wildlife. Operation of the proposed project would generate low levels of persistent noise and other disturbances that could adversely affect wildlife. Because wildlife have likely acclimated to the existing noise and disturbances in the study area, including operation of the Eastern Regional MRF and Transfer Station, and because the project would generate only low levels of noise, disturbance to wildlife would not be substantial. Therefore, this impact would be less than significant.

Human-made noise can alter the behavior of wildlife and interfere with their ability to forage, breed, or seek shelter. Some of the more damaging effects could include harming health, reproduction, survivorship, habitat use, distribution, abundance, or genetic distribution.

The project site is located adjacent to the Eastern Regional MRF and Transfer Station, which currently operates during daytime hours and generates noise primarily from truck deliveries. Because the facility has long been in operation, wildlife in the study area have likely acclimated to this existing noise source, as well as the existing traffic noise along Cabin Creek Road.

Most of the activities associated with the project would occur during the day, with the primary noise source being truck deliveries; however, the project's mechanical equipment would operate on a continuous basis and would generate noise both during the day and at night, albeit at lower levels than during the day. The mechanical equipment would be housed inside a building, which would act as a noise buffer. As described in Chapter 11, Noise, operation of the proposed project would not exceed applicable noise standards and; therefore, would not result in a substantial increase in ambient noise levels at nearby existing noise-sensitive receptors.

Because the study area experiences existing noise through truck traffic and equipment use at the Eastern Regional MRF and Transfer Station, wildlife have likely acclimated to the existing noise and human disturbance in the study area, and because the project would generate only low levels of noise and minimal increase in truck trips and equipment use, disturbance to wildlife would not be substantial. Therefore, this impact would be **less than significant**.

5.4 MITIGATION MEASURES

Mitigation Measure 5-1

To avoid impacts to nesting birds, trees and other vegetation shall be removed from the project site during the non-breeding season (September 1 to March 30) to the extent feasible.

If vegetation removal is scheduled to occur during the nesting season (April 1 to August 31), the Applicant shall retain a qualified biologist to conduct preconstruction surveys in suitable habitat on the project site. The surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of construction. Survey results shall be sent immediately to Placer County Planning Services Division and to the California Department of Fish and Game (CDFG). If active nests are present on or immediately adjacent to the project site, Planning Services Division staff shall initiate consultation with CDFG to determine appropriate avoidance measures.

If no nests are found, no further mitigation is required.

Implementation of this mitigation measure would reduce significant impacts associated with the disturbance to nesting birds and potential loss of individuals to a **less-than-significant** level by removing vegetation during the non-breeding season and minimizing potential for loss of active nests.

Mitigation Measure 5-2

a. *To reduce the loss of Jeffrey pine forest and protect individual trees on the project site, the Applicant shall conduct a tree survey to determine the number and size of trees to be removed. The number of trees to be removed shall be minimized to the extent feasible.*

b. *The Applicant shall obtain a tree permit from the County, as per the County's Tree Ordinance. As stated in the Tree Ordinance (12.16.080 Replacement program and penalties), the County may condition any tree permit or discretionary approval involving removal of a protected tree upon (a) the replacement of trees in kind, (b) implementation of a revegetation plan, or (c) payment into the County's Tree Preservation Fund. Because the project site would not support replacement trees or the implementation of a revegetation plan, the Applicant shall either replace trees at an offsite location or contribute to the County's Tree Preservation Fund; this will be determined by the County.*

   The replacement requirement may be calculated based upon an inch for an inch replacement of the removed tree(s) and may require minimum 15 gallon size trees. The total of replacement trees may be required to have a combined diameter of the tree(s) removed. A minimum of 50% of replacement trees will be of a similar native tree. Replacement trees may be planted onsite or in other areas to the satisfaction of the County Planning Services Division. Such replanting must not result in the over-planting of a site such that an unsafe fire condition is created.

   The County may decide that if the project site is not capable of supporting all of the replacement trees, the Applicant shall pay the County the current market value, as established by an arborist, forester, or registered landscape architect, of the replacement trees, including cost of installation, to go into a Tree Preservation Fund.

   Before Improvement Plans are approved, the Applicant shall provide proof to the County that one, or a combination, of the mitigation options described above has been completed and/or funded. Proof of mitigation fulfillment will also be provided to DFG.

Implementation of these mitigation measures (a and b) would reduce potentially significant impacts associated with the loss of trees to a **less-than-significant** level by replacing trees that are removed by site development or contributing to the County's Tree Preservation Fund, which would fund the planting and maintenance of new trees or conservation efforts directed at conserving or restoring existing functional value off-site.