

**6.0**  
**BIOLOGICAL RESOURCES**

## 6.0 BIOLOGICAL RESOURCES

Note to the reader: As of January 1, 2013, the agency formerly known as the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW). For purposes of this discussion, the agency names and abbreviations are interchangeable.

This section describes the existing biological resources, including special-status species and sensitive habitat known to occur and/or have the potential to occur in the project study area (PSA), which includes the entire Northstar community (development and resort area) as well as the project-level and program-level components described in Section 3.0, Project Description. In addition, this section includes a summary of the regulations and programs that provide protective measures to special-status species, an analysis of impacts to biological resources that could result from project implementation, and a discussion of mitigation measures necessary to reduce impacts to a less than significant level, where feasible.

Several steps were taken to characterize the environmental setting in the project vicinity. Project-related documentation (Northstar Habitat Management Plan, Martis Valley Community Plan EIR, and Northstar Highlands EIR) was reviewed to collect site-specific data regarding habitat suitability for special-status species, as well as to identify potentially jurisdictional waters. Additional information was obtained from a variety of outside data sources listed in Section 20.0, References. Preliminary database searches were performed to identify special-status species with the potential to occur in the area.

Database searches were performed on the following websites:

- US Fish and Wildlife Service's (USFWS) Sacramento Office Species Lists (2013a)
- USFWS's Information Planning and Conservation (IPaC) System (2013b)
- USFWS's Critical Habitat Portal (2013c)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (2013a)
- CDFW's Spotted Owl Database (2013b)
- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (2013)

A search of the USFWS Sacramento Office's database was performed for the Kings Beach, Tahoe City, Granite Chief, Boca, Hobart Mills, Truckee, Martis Peak, Independence Lake, and Norden US Geological Survey (USGS) 7.5-minute quadrangles to identify special-species within their jurisdiction that may be affected by project components. In addition, the USFWS IPaC System was queried to identify additional special-status species within the jurisdiction of the Reno Nevada office of the USFWS. The USFWS Critical Habitat Portal query did not identify any critical habitat in the vicinity of the PSA. A query of the CNDDDB provided a list of known occurrences for special-status species within a 1- and 5-mile radius of the PSA. Lastly, the CNPS database was queried to identify special-status plant species with the potential to occur within the Martis Peak and Truckee, California, USGS 7.5-minute quadrangles. Raw data from the database queries is provided in **Appendix 6.0**. Methodology utilized in the analysis is described further under subsection 6.3, Impacts.

## 6.1 EXISTING SETTING

### 6.1.1 LOCAL SETTING

The PSA is located within the Sierra Nevada ecological section of the Sierran Steppe-Mixed Forest-Coniferous Forest-Alpine Meadow ecological province (McNab et al. 2007). This province is characterized by a mountainous landscape with steep slopes, cold winters, and elevation-delineated vegetation zones that range from broadleaf-needle leaf woodland and shrublands at lower elevations to needle leaf evergreen forests at higher elevations (McNab et al. 2007). The landscape of the Sierra Nevada section is characterized as a block-mountain range with high elevation crests and metamorphosed sedimentary and volcanic rock formations (McNab et al. 2007). Cover types in this section consist of ponderosa pine, fir-spruce, lodgepole pine, sagebrush, and alpine tundra (McNab et al. 2007). The Sierra Nevada section is further subdivided into 21 subregions, including the Tahoe-Truckee ecological subregion.

The PSA is associated with the Tahoe-Truckee subregion. This subregion is located in the northeastern part of the Sierra section between Sierra Valley and Lake Tahoe, and is on a gently sloping to moderately steep plateau dissected by streams that have formed steep to very steep canyons (Goudey and Miles 1998). Soils are predominantly well drained; however, somewhat poorly drained soils occur in basin floors (Goudey and Miles 1998). Vegetation is largely characterized by ponderosa pine, mixed conifer, white fir, red fir, and big sagebrush (Goudey and Miles 1998). Jeffrey pine, mountain hemlock, lodgepole pine, sedge meadow, black cottonwood, and aspen are also found in the subregion (Goudey and Miles 1998). The climate is cold and semi-arid to humid, with mean annual temperatures between 35° and 45° Fahrenheit, and 20–40 inches of precipitation that falls mostly as snow annually (Goudey and Miles 1998). Surface water runoff is rapid and associated with spring snowmelt that flows to the Truckee River; however, the northern portion of the Tahoe-Truckee subregion flows to the Sierra Valley and the Middle Fork of the Feather River (Goudey and Miles 1998).

### 6.1.2 BIOLOGICAL SETTING

The ±8,000-acre PSA comprises a mix of developed land uses and natural community types. As noted above, the PSA includes the entire Northstar community (development and resort area) as well as the project-level and program-level components. The proposed NMMP is smaller than the overall PSA. Uses associated with the developed areas include roads, mountain biking and hiking trails, ski runs and lifts, and snowmaking equipment, as well as residential and commercial buildings (**Figure 6-1**). The remainder of the PSA consists of a mix of upland forest, chaparral, herbaceous, and riparian community types. Land cover designations were assigned and described by EDAW/AECOM in the *Habitat Management Plan, Northstar-at-Tahoe* (Northstar HMP or HMP, **Appendix 3.3**). Each cover type is described below based on the data presented in the Northstar HMP and *A Guide to Wildlife Habitats of California* (CDFW 2013c).

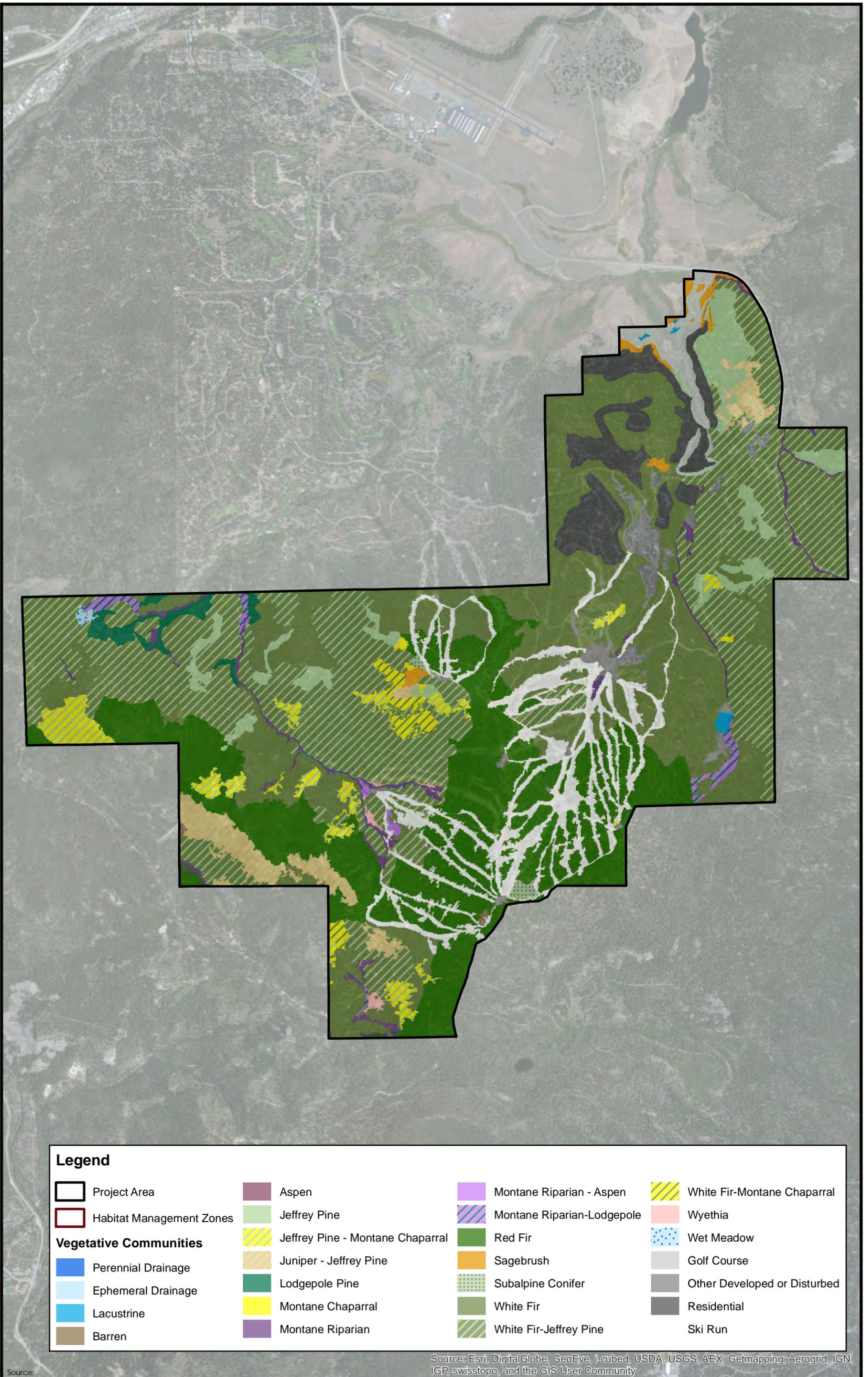


Figure 6-1  
Existing Land Use and Vegetative Communities

### **Developed Land Use Types (1,227.5 acres)**

These land uses include a golf course, residential development, other developed or disturbed areas, and ski runs. The golf course comprises approximately 119.2 acres, is located in the northeastern portion of the PSA, and consists of intensively managed landscaping with impervious surface, structures, and man-made water features. Residential development is located adjacent to and south of the golf course. This land use consists of ±361.4 acres of residential housing along with their associated structures, roads, landscaping, and natural vegetation fragments. Other developed and commercial uses represent ±149.5 acres and are interspersed between the golf course, residential, and ski run areas. These uses include roads, commercial development, other recreational, impervious surfaces, structures, and landscaping. Ski runs and their associated uses represent 597.4 acres and consist of herbaceous and shrub cover that is actively maintained.

### **Barren (4.9 acres)**

Barren habitat is defined by the absence of vegetation with less than 2 percent total vegetation cover by herbaceous species and less than 10 percent cover by tree or shrub species. Sparsely vegetated substrate is usually assumed to be a component of the surrounding vegetation type. Barren areas on-site contain exposed soil and rock and are man-made. This cover type provides marginal habitat value for wildlife species.

### **Montane Chaparral (10.3 acres)**

Montane chaparral varies in species composition with elevational, geographical, soil, and aspect changes. Most species associated with this community are fire adapted; therefore, chaparral is a secondary successional sequence following disturbance (e.g., logging, fire, erosion) in a variety of coniferous habitats. This community adjoins a variety of other habitat types, including montane riparian, mixed chaparral, and perennial grassland. One or more of the following species usually characterize montane chaparral communities: whitethorn ceanothus (*Ceanothus cordulatus*), snowbrush ceanothus (*Ceanothus velutinus*), greenleaf manzanita (*Arctostaphylos patula*), pinemat manzanita (*Arctostaphylos nevadensis*), hoary manzanita (*Arctostaphylos canescens*), bitter cherry (*Prunus emarginata*), huckleberry oak (*Quercus vacciniifolia*), sierra chinquapin (*Castanopsis sempervirens*), juneberry (*Amelanchier* sp.), Fremont silktassel (*Garrya fremontii*), Greene goldenweed (*Ericameria greenei*), mountain mahogany (*Cercocarpus* spp.), sumac (*Rhus* sp.), and California buckthorn (*Rhamnus californica*). Within the PSA, this community is characterized by less than 10 percent canopy cover, greater than 50 percent shrub cover, and 25 percent herbaceous cover. The species composition consists of greenleaf manzanita, pinemat manzanita, snowbrush ceanothus, huckleberry oak, and Sierra gooseberry (*Ribes roezlii*).

Numerous rodents, deer and other herbivores, as well as birds utilize montane chaparral habitats. This community provides critical summer range foraging areas, escape cover, and fawning habitat for deer along the western slope of the Sierras and south through the Transverse Range.

### **Jeffrey Pine (298.3 acres)**

This community is associated with subalpine conifer at higher elevations, and pinyon-juniper or sagebrush at lower elevations. Jeffrey pine (*Pinus jeffreyi*) stands are self-perpetuating under a regime of periodic surface fires, and Jeffrey pine typically dominates the canopy layer to form pure stands. However, ponderosa pine (*P. ponderosa*), Coulter pine (*P. coulteri*), sugar pine (*P. lambertiana*), lodgepole pine (*P. contorta* ssp. *murrayana*), white fir (*Abies concolor*), California

red fir (*A. magnifica*), incense cedar (*Calocedrus decurrens*), and black cottonwood (*Populus trichocarpa*) can also occur in the canopy layer. Dominant understory species may include quaking aspen (*Populus tremuloides*), California black oak (*Quercus kelloggii*), two-needle pinyon pine (*Pinus edulis*), western juniper (*Juniperus occidentalis*), squaw currant (*Ribes cereum*), snowbush (*Ceanothus cordulatus*), and greenleaf manzanita, antelope bitterbrush (*Purshia tridentate*), rabbitbrush (*Chrysothamnus nauseosus* ssp. *hololeucus*), and low sagebrush (*Artemisia arbuscula*). Within the PSA, Jeffrey pine dominates the canopy, the understory species composition is highly variable, and herbaceous cover is sparse (less than 25 percent).

The value of the Jeffrey pine community as habitat for wildlife is due in large part to the food value of the Jeffrey pine seeds. Pine seeds are included in the diet of more wildlife species than any other genus except oak. The bark and foliage also serve as important food sources for squirrels (*Ammospermophilus* spp.) and black-tail deer (*Odocoileus hemionus*). Jeffrey pine provides vital nesting cover for several species such as white-breasted nuthatch (*Sitta carolinensis*), brown creeper (*Certhia americana*), and northern flying squirrel (*Glaucomys sabrinus*).

### **Jeffrey Pine-Montane Chaparral (203.4 acres)**

This community exists as an intergrade between the Jeffrey pine and montane chaparral communities. Jeffrey pine is the dominant tree species; however, the understory species composition is similar to montane chaparral. Shrub cover is generally greater than 50 percent, with canopy cover estimated at less than 10 percent in some patches and more than 10 percent in others. Wildlife typically associated with the Jeffrey pine and montane chaparral communities are likely to utilize this community type.

### **Jeffrey Pine-Juniper (217.4 acres)**

Similar to the Jeffrey pine-montane chaparral community, the Jeffrey pine-juniper community is an intergrade between Jeffrey pine and juniper community types. Juniper is typically characterized by antelope bitterbrush, California buckwheat (*Eriogonum fasciculatum*), wax currant (*Ribes cereum*), gray horsebrush (*Tetradymia canescens*), green Mormon-tea (*Ephedra viridis*), curlleaf mountain mahogany (*Cercocarpus ledifolius* var. *intermontanus*), big sagebrush (*Artemisia nova*), and black sagebrush (*A. arbuscula*). Within the PSA, Jeffrey pine dominates the canopy with a variable understory species composition and a sparse herbaceous cover (less than 25 percent).

Wildlife typically associated with Jeffrey pine and juniper communities are likely to utilize this community type. Several bird species forage on juniper berries, and several mammal species forage on juniper foliage in winter months. Juniper may provide a food source for local fauna during harsh winter months.

### **White Fir (1,931.3 acres)**

White fir habitat is a cool, moist non-riparian habitat within the lower to mid-elevation forests in Northern California. Mature white fir stands are normally monotypic and are found throughout California. The dense shade created by the nearly complete canopy closure typically inhibits understory growth; however, sugar pine, incense cedar, red fir, pipsissewa (*Chimaphila umbellata*), currant (*Ribes* sp.), and snowplant (*Sarcodes sanguinea*) are common associates. Within the PSA, white fir dominates the canopy, the understory species composition is highly variable, and herbaceous cover is sparse (less than 25 percent).

Windthrow and heart rot fungus result in a high percentage of snags in mature white fir stands; as a result, this community provides excellent habitat for snag- and cavity-dependent wildlife species. White fir is the preferred tree species for insect-gleaning yellow-rumped warblers (*Dendroica coronate*) and western tanagers (*Piranga ludoviciana*) and is also commonly used by mountain chickadee (*Poecile gambeli*), chestnut-backed chickadee (*Poecile rufescens*), golden-crowned kinglet (*Regulus satrapa*), and black-headed grosbeak (*Pheucticus melanocephalus*).

### **White Fir-Montane Chaparral (63.0 acres)**

This community exists as an intergrade between the montane chaparral and white fir communities. Within the PSA, white fir dominates the canopy, with shrub cover of more than 50 percent and a species composition similar to montane chaparral habitats. It is anticipated that wildlife commonly associated with montane chaparral and white fir would occur in this community type.

### **White Fir-Jeffrey Pine (2,324.6 acres)**

This community is an intergrade between the white fir and Jeffrey pine communities within the PSA and therefore exhibits vegetative characteristics of both communities. The species composition is similar to the white fir community, with the exception of a high percent cover of Jeffrey pine (20–50 percent). Wildlife typical of both white fir and Jeffrey pine communities are anticipated to occur in this intergrade community.

### **Lodgepole Pine (77.2 acres)**

Lodgepole pine typically forms monotypic dense forests of slender trees. Common associates include aspen, mountain hemlock (*Tsuga mertensiana*), huckleberry (*Vaccinium parvifolium*), and mountain heather (*Phyllodoce empetriformis*). Understory percent cover and species composition is weakly correlated with canopy cover and may be sparse with scattered shrubs and herbs or a dense layer at meadow margins. Lodgepole pine stands are commonly associated with meadow edges and streams, where the understory consists of grasses, forbs, and sedges. Within the PSA, lodgepole pine dominates the canopy, with a variable shrub cover percentage and composition, and sparse herbaceous layer (less than 25 percent).

Lodgepole pine stands have low structural diversity and are relatively low in abundance of animal species. Many species found in lodgepole pine stands are associated with the meadow edge. The lodgepole pine habitat provides suitable habitat for 6 reptiles and amphibians, 49 birds, and 35 mammals. These include wolverine (*Gulo gulo*), northern goshawk (*Acipiter gentilis*), bald eagle (*Haliaeetus leucocephalus*), prairie falcon (*Falco mexicanus*), Douglas squirrel (*Tamiasciurus douglasii*), and golden-mantled squirrel (*Spermophilus lateralis*).

### **Red Fir (1,540.9 acres)**

Red fir habitats are typically associated with frigid soils in the upper elevations of Northern California mountains. Stands of mature red fir are normally monotypic, with few species in any other layer due to heavy shade and a thick duff layer that inhibits growth of understory vegetation. This community intergrades with white fir, lodgepole pine, and mountain meadow habitats at lower elevations. Mountain hemlock (*Tsuga mertensiana*), western white pine (*Pinus monticola*), whitebark pine (*P. albicaulis*), foxtail pine (*P. balfouriana*), and limber pine (*P. flexilis*) occur at higher elevations. Portions of this community type on-site are dominated by red fir with a sparse understory (less than 10 percent).

This community provides forage and cover for at least one season to 169 wildlife species, including 8 amphibians, 4 reptiles, 104 birds, and 53 mammals. Furthermore, red fir habitats can be considered very important for 28 bird and 26 mammal species, including northern goshawk, blue grouse (*Dendragapus obscurus*), great gray owl (*Strix nebulosa*), red fox (*Vulpes vulpes*), American marten (*Martes americana*), and wolverine.

### **Subalpine Conifer (16.4 acres)**

This community typically intergrades with lodgepole pine, Jeffrey pine, and red fir habitats. Several species can dominate the canopy either singly or in mixtures of two or more species, including Engelmann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), mountain hemlock, western white pine, lodgepole pine, whitebark pine, foxtail pine, bristlecone pine (*Pinus longaeva*), and limber pine. Understory and secondary species may include Parry manzanita (*Arctostaphylos parryana*), squaw currant, purple mountain heather (*Phyllodoce caerulea*), oceanspray (*Holodiscus discolor*), big sagebrush, willows (*Salix* spp.), western huckleberry (*Vaccinium membranaceum*), California huckleberry (*V. ovatum*), Sierra bilberry (*Vaccinium caespitosum*), alpine laurel (*Kalmia microphylla*), western wheatgrass (*Pascopyrum smithii*), California brome (*Bromus carinatus*), lupines (*Lupinus* spp.), and various other flowering annuals. Dominant tree species within the subalpine conifer habitats on-site include mountain hemlock, lodgepole pine, and red fir. Species composition within the shrub layer is highly variable, and the herbaceous layer is typically sparse (less than 25 percent).

Coniferous forests at higher elevations in California typically support fewer wildlife species than any other forest type in the state. The reason for the lower wildlife utilization is thought to be correlated with climate, short growing season, lower primary productivity, and moisture stress, or some combination thereof. Suitable breeding habitat for 1 reptile, 14 bird, and 22 mammal species occurs in these high elevation coniferous forests, while 17 bird and 15 mammal species find the habitat optimal. The great gray owl, pileated woodpecker (*Dryocopus pileatus*), marten, and wolverine are commonly associated with these habitat types.

### **Sagebrush (44.1 acres)**

Sagebrush stands are typically large, open, discontinuous stands of big sagebrush of fairly uniform height. Big sagebrush tends to have a single short, thick, stem that branches into a nearly globular crown. Plant heights range from 0.5 to 3 meters (1.6 to 9.8 feet), and density ranges from very open, widely spaced, small plants to large, closely spaced plants with canopies touching. Generally, sagebrush communities contain stands with shrubs of very uniform size and spacing. Sagebrush occurs at a wide range of middle and high elevations. At higher elevations, sagebrush occurs as an understory with birchleaf mountain mahogany (*Cercocarpus montanus* var. *glaber*), pinyon pine, western juniper, and ponderosa pine.

At lower elevations and on drier sites, it gives way to such species as sickle saltbrush (*Atriplex gardneri* var. *falcate*), greasewood (*Sarcobatus vermiculatus*), creosote bush (*Larrea tridentate*), and winterfat (*Krascheninnikovia lanata*). At middle elevations and on more mesic sites, the habitat meets bitterbrush, curlleaf mountain mahogany, and western serviceberry (*Amelanchier pallida*). Often the habitat is composed of pure stands of big sagebrush, but many stands include other species of sagebrush, rabbitbrush (*Chrysothamnus nauseosus* ssp. *hololeucus*), horsebrush, gooseberry (*Ribes* spp.), western chokecherry (*Prunus virginiana* var. *demissa*), curlleaf mountain mahogany, and bitterbrush. There are roughly 15 species and 6 subspecies of sagebrush occurring in California. The subspecies differences are manifested in minor morphological and adaptive characteristics. As topography, soil composition, and moisture change through the

sagebrush type, the dominant species of sagebrush changes. On low flats with shallow soils and restricted drainage, low sagebrush is dominant. Where the soil remains saturated through the spring, silver sagebrush (*Artemisia cana* ssp. *bolanderi*) dominates. In communities not fully occupied by sagebrush, various amounts of herbaceous understory are found. Idaho fescue (*Festuca idahoensis*), wheatgrass (*Elymus* spp.), several species of needlegrass (*Achnatherum* spp.), California squirreltail (*Elymus elymoides* ssp. *californicus*), Sandberg bluegrass (*Poa secunda*), and wildrye (*Elymus* spp.) are among the more common grasses found in the habitat. After disturbance and during years with excess moisture, annual grasses such as cheatgrass (*Bromus tectorum*) and medusa-head (*Taeniatherum caput-medusae*) invade sagebrush stands.

The sagebrush type is very important to wildlife because it serves as habitat for some of the more important game animals and occupies such a vast area. It is a major winter-range type for migratory black-tail deer (*Odocoileus hemionus columbianus*), and many herds summer in sagebrush-ponderosa pine complexes at middle and high elevations. The sagebrush and its included low sagebrush and bunchgrass types are the principal habitats for pronghorns. The greater sage grouse (*Centrocercus urophasianus*) is dependent on various successional stages of the type all year. It is also occupied by black-tailed jackrabbit (*Lepus californicus*), least chipmunk (*Neotamias minimus*), California pocket mouse (*Chaetodipus californicus*), deer mouse (*Peromyscus maniculatus*), and sagebrush vole (*Lemmyscus curtatus*). Birds of the sagebrush type include the black-billed magpie (*Pica hudsonia*), gray flycatcher (*Empidonax wrightii*), pinyon jay (*Gymnorhinus cyanocephalus*), sage thrasher (*Oreoscoptes montanus*), and several sparrows and hawks.

### **Wyethia (12.6 acres)**

This community is characterized by a sparse canopy (less than 10 percent cover), moderate shrub cover (greater than 50 percent), and herbaceous cover larger than the shrubs. Woolly mules ears (*Wyethia mollis*) is the dominant herbaceous species and occurs in small areas in or adjacent to riparian habitats within the PSA.

### **Wet Meadow (6.8 acres)**

This community is typically simple in structure (i.e., herbaceous layer only) and occurs as an ecotone between freshwater emergent wetland and perennial grassland communities. A wide variety of herbaceous species are associated with this community type; however, several genera are commonly associated with this habitat and include *Agrostis*, *Carex*, *Danthonia*, *Juncus*, *Salix*, and *Scirpus*. Wet meadow within the PSA is characterized by Baltic rush (*Juncus balticus*), sedges (*Carex* spp.), cornlily (*Veratrum californicum*), graceful cinquefoil (*Potentilla gracilis*), and yarrow (*Achillea millifolium*), as well as numerous grass and forb species.

Typically, meadow habitats support a diverse amount of wildlife species. Mule deer (*Odocoileus hemionus*) and elk (*Cervus elaphus*) may feed in wet meadows, seeking forbs and palatable grasses in particular. Waterfowl, especially mallards (*Anas platyrhynchos*), frequent streams flowing through wet meadows. Yellow-headed (*Xanthocephalus xanthocephalus*) and red-winged (*Agelaius phoeniceus*) blackbirds 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 ranges. Various frog species are abundant in wet meadows throughout California. Five species of trout—brown (*Salmo trutta*), cutthroat (*Oncorhynchus clarki henshawi*), rainbow (*O. mykiss*), eastern brook (*Salvelinus fontinalis*), and Mackinaw (*Salvelinus namaycush*)—inhabit streams and lakes of the Sierra Nevada, and presumably may occur in perennial streams associated with wet meadows.

## **Montane Riparian (107.2 acres)**

Montane riparian is highly variable and often structurally diverse. Usually, the montane riparian zone occurs as a narrow, often dense grove of broad-leaved, winter deciduous trees up to 30 meters tall with a sparse understory. At high mountain elevations, this habitat type is usually less than 15 meters high and may not be well developed, with more shrubs in the understory. At high elevations, this habitat type may even occur in the shrub stage only. In the Sierra Nevada, characteristic species include thinleaf alder (*Alnus incana*), aspen, black cottonwood, dogwood (*Cornus* sp.), wild azalea (*Rhododendron periclymenoides*), and willow. On-site portions of this community are characterized by a combined canopy and shrub layer cover of greater than 75percent and herbaceous cover greater than 25 percent. Dominant plant species include mountain alder (*Alnus incana*), Lemmon's willow (*Salix lemmonii*), and Scouler's willow (*S. scouleriana*).

All riparian habitats have an exceptionally high value for many wildlife species. Such areas provide water, thermal cover, migration corridors, and diverse nesting and feeding opportunities. The shape of many riparian zones, particularly the linear nature of streams, maximizes the development of edge, which is highly productive for wildlife. A wide range of amphibians, reptiles, birds, and mammals utilize montane riparian habitat for food, cover, and reproduction. The rubber boa (*Charina umbratica*) and Sierra Nevada red fox (*Vulpes vulpes necator*) are among the listed species that use montane riparian habitats during their life cycles.

## **Montane Riparian-Lodgepole Pine (49.2 acres)**

This community exists as an intergrade between the montane riparian and lodgepole pine communities. Lodgepole pine is the dominant canopy species, with mountain alder, Lemmon's willow, and Scouler's willow present as secondary species. Wildlife typically associated with the montane riparian and lodgepole pine communities are also likely utilize this community type.

## **Montane Riparian-Aspen (7.7 acres)**

This community exists as an intergrade between the montane riparian and aspen communities. Mountain alder, Lemmon's willow, and Scouler's willow are the dominant woody species, with aspen present in the canopy layer as a secondary species. Wildlife typically associated with the montane riparian and aspen communities are also likely utilize this community type.

## **Lacustrine (10.2 acres)**

Typical lacustrine habitats include permanently flooded lakes and reservoirs (e.g., Lake Tahoe and Shasta Lake), intermittent lakes (e.g., playa lakes), and shallow ponds. Depth can vary from a few centimeters to hundreds of meters. As sedimentation and organic matter increases, floating rooted aquatics such as water lilies (*Nymphaea* spp.) and smartweed (*Polygonum amphibium* var. *stipulaceum*) often appear. Within the PSA, all lacustrine features are man-made.

Suspended organisms such as plankton are found in the open water of lacustrine habitats. Submerged plants such as algae and pondweeds serve as supports for smaller algae and as cover for other aquatic species. Floating plants offer food and support for numerous herbivorous animals that feed on both plankton and floating plants. The endangered bald eagle feeds on fish and some birds taken from lakes. Most permanent lacustrine systems support fish life; intermittent types usually do not.

### **Aspen (0.4 acres)**

Aspen stands are primarily found at higher elevations near seeps, streams, and meadows on the eastern slopes of the Sierra Nevada and Cascade ranges. In addition, aspen stands are typically inclusions within red fir, mixed conifer, Jeffrey pine, and lodgepole pine communities. Stands are largely composed of clones that represent one or more genetic lines. Willows, alders (*Alnus* spp.), black cottonwood, lodgepole pine, Jeffrey pine, ponderosa pine, red fir, white fir, Douglas fir (*Pseudotsuga menziesii*), and Engelmann spruce represent secondary canopy species associated with this community. Understory species can include sagebrush (*Artemisia* spp.), roses (*Rosa* spp.), snowberry (*Symphoricarpos albus*), western chokeberry (*Prunus virginiana*), western serviceberry (*Amelanchier alnifolia*), and a variety of other forb species. On-site portions of this community are characterized by an aspen-dominated canopy with mountain alder and willow occurring as secondary species.

No wildlife species is dependent on aspen-dominated habitats; however, the shrubby ecotone it creates between adjacent meadows provides nesting and cover for various bird species. In addition, aspen stands are favored by a variety of cavity-nesting birds, including bluebirds (*Sialia* spp.), sapsuckers (*Sphyrapicus* spp.), downy woodpeckers (*Picoides pubescens*), and chickadees (*Poecile* spp.).

### **Ephemeral Drainage (0.2 acre)**

Ephemeral streams or drainages are typically high-gradient features, with coarse bed material, and may or may not have a well-defined channel. These features contain flowing water for a short duration after precipitation events in a typical year, and the streambeds are located above the groundwater table; therefore, runoff from rainfall and snowmelt are the primary sources of surface water flow. Due to the short duration of inundation by surface water, vegetation and wildlife utilization is typically similar to adjacent habitats.

### **Perennial Drainage (2.0 acres)**

Perennial streams or drainages are low-gradient features, with fine bed materials (e.g., sand, gravel) and a well-defined channel. These features contain flowing water year-round during a normal rain/snowfall year, and the streambed is located below the water table for the majority of the year; therefore, groundwater is the primary source of surface water for these features. Due to the continuous inundation, vegetation typically comprises hydrophytic species.

Open water portions of larger perennial rivers provide habitat for osprey (*Pandion haliaetus*) and bald eagle, while emergent vegetation near shore provides habitat for waterfowl, herons, shorebirds, belted kingfisher (*Megaceryle alcyon*), and American dipper (*Cinclus mexicanus*). Swallows, swifts, and flycatchers forage on insects over open water. Lastly, common mammal species include mink (*Mustela* spp.), muskrat (*Ondatra zibethicus*), and beaver (*Castor* spp.).

### **Sensitive Habitats and Other Protected Resources**

Sensitive habitats included are those that are of special concern to resource agencies or those that are protected under the California Environmental Quality Act (CEQA), Section 1600 of the California Fish and Game Code (FGC), Sections 401 and 404 of the Clean Water Act (CWA), and/or were identified in the Northstar HMP as target habitats.

## ***Waters of the United States, Including Wetlands***

Jurisdictional waters of the United States (WoUS) and isolated wetlands provide a variety of functions for plants and wildlife. Wetlands and other water features provide habitat, foraging, cover, migration, and movement corridors for both special-status and common species. In addition to habitat functions, these features provide physical conveyance of surface water flows capable of handling large stormwater events. Large storms can produce extreme flows that cause bank cutting and sedimentation of open waters and streams. Jurisdictional waters can slow these flows and lessen the effects of these large storm events, protecting habitat and other resources.

In 2006, EDAW submitted a request for an approved jurisdictional determination (JD) to the US Army Corps of Engineers (USACE). The JD covered 17.3 acres of waters of the United States and was verified in 2010 by the USACE (EDAW 2006). The remainder of the wetland, riparian, and other aquatic habitats within the PSA have not been verified by the USACE to date.

Based on the data presented in the Northstar HMP, approximately 183.7 acres of wetlands and other waters occur within the PSA. These cover types include aspen, wet meadow, montane riparian, montane riparian-lodgepole pine, montane riparian-aspen, aspen, lacustrine, ephemeral drainage, and perennial drainage. The previously verified delineation was incorporated into the mapping effort for the Northstar HMP; therefore, it is estimated that approximately 166.4 acres of unverified and potentially jurisdictional features occur within the PSA. **Figure 6-2** depicts the previously verified WoUS, as well as the unverified features that may be considered waters of the United States by the USACE.

## **Northstar HMP**

As described in Section 3.0, Project Description, the purpose of the Northstar HMP is to maintain and enhance the natural resource values of Northstar, while allowing for current and planned future land uses (including the proposed NMMP) in a manner that is compatible with those values. The HMP provides a programmatic framework for the long-term management, conservation, and monitoring of biological resources at Northstar. Implementation of the HMP is intended to minimize the biological and water quality impacts of development. As further described below, the HMP divides Northstar into Resource Management Zones (**Figure 3-11**) that are associated with the identification of Target Habitats (i.e., late-seral forest and riparian/aquatic) and Focal Species (species associated with Target Habitats).

## ***Resource Management Zones***

The following is a description of the habitat conditions for each of the Resource Management Zones.

Zone A (Developed Community) is the most developed zone of the resort. Land uses include commercial and residential development, ski operations, other recreational facilities, and open space. The west fork of West Martis Creek flows through Zone A. The predominant vegetation consists of white fir and Jeffrey pine forests; much of this forest is intermixed with developed land uses, and none is dominated by larger trees (EDAW/AECOM 2009).

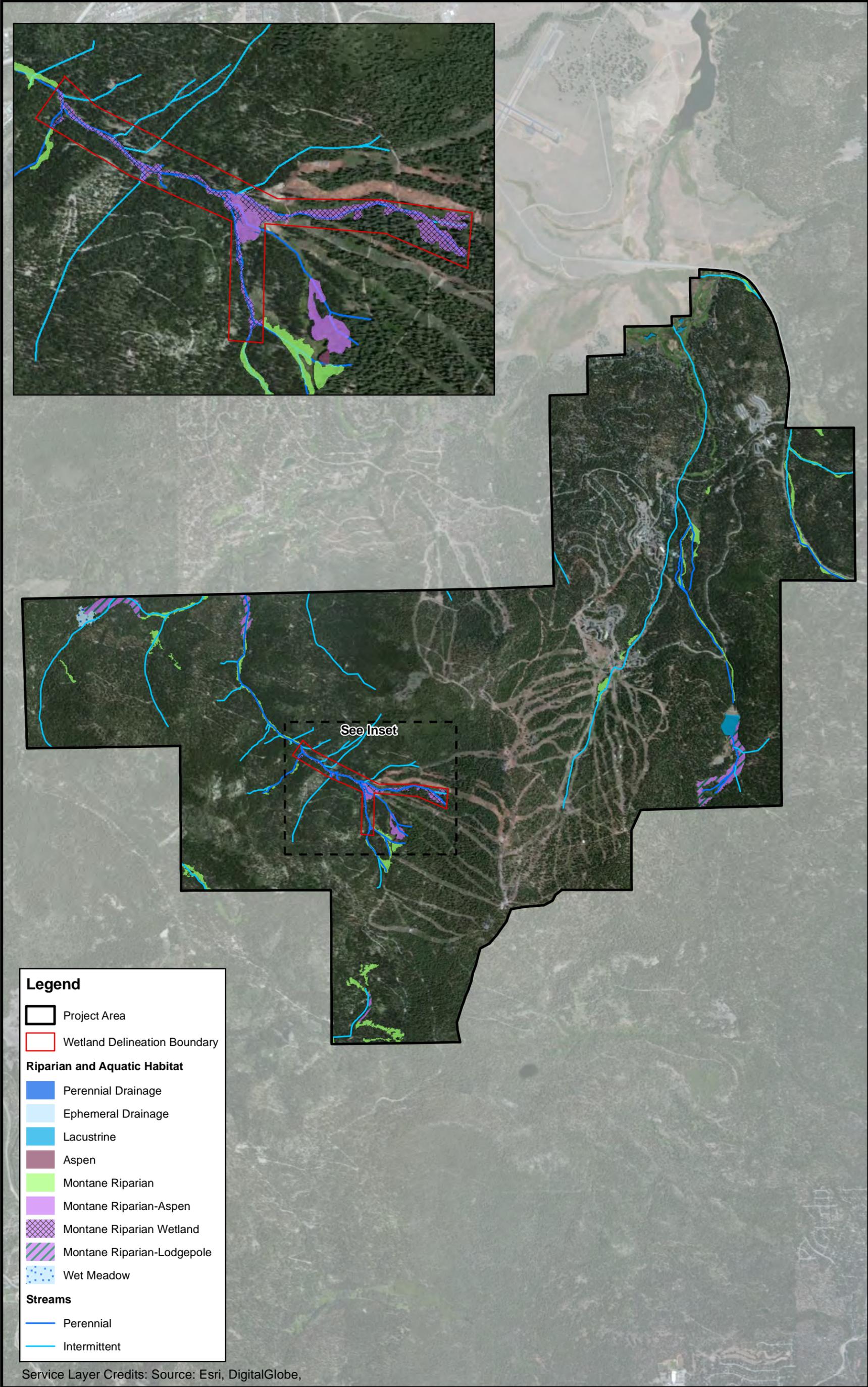


Figure 6-2  
Riparian and Aquatic Habitat within the Project Area



Zone B (Intensive Ski Area Development) is an area designated for intensive ski area development. This zone already contains an extensive network of unpaved roads, ski runs, trails, and associated facilities, including nine existing and approximately six proposed ski lifts. Schaffer Creek and the west fork of West Martis Creek flow through this zone. Zone B contains extensive areas of red fir and white fir forest (and a variety of other vegetation types); approximately 1 percent of these forests are dominated by larger trees (EDAW/AECOM 2009).

Zone C (Intensive Recreation Use Area) contains numerous recreational trails and backcountry roads that are used for a variety of activities, including cross country skiing, hiking, horseback riding, fishing, mountain biking, and off-road vehicle driving. West Martis Creek flows through the Sawmill Flats reservoir in Zone C. White fir and red fir forests are the predominant vegetation; none of these forests are dominated by larger trees (EDAW/AECOM 2009).

Zone D (Recreation Use/Habitat Transition Area) is a recreational use and habitat transition area that provides a transition area from the intensive recreational uses of Zones A, B, and C to the Zone E Habitat Conservation Area. Zone D is separated into three subzones that differ in recreational uses and habitats. Subzone D1 is the northern portion of Zone D and contains the western slopes of Lookout Mountain. Its vegetation consists primarily of white fir-Jeffrey pine forests. There is no late-seral forest in Subzone D1. Although no perennial streams flow through Subzone D1, the perennial Schaffer Creek is near the boundary between Subzone D1 and Subzones D2 and D3 (EDAW/AECOM 2009).

Subzone D2 is the southwestern portion of Zone D and extends from Sawtooth Ridge to Schaffer Creek. Its vegetation consists primarily of white fir and red fir forests, and these forests are quite varied in their stand structure. There are ±56 acres of late-seral stands (32 percent of forest in Subzone D2). An unnamed perennial stream flows through this subzone, and the perennial Schaffer Creek flows through the subzone near its northern border (EDAW/AECOM 2009).

Subzone D3 is the southeastern portion of Zone D, and like Subzone D2, it extends from Sawtooth Ridge to Schaffer Creek. Its vegetation consists primarily of white fir and red fir forests. Approximately 10 acres of late-seral forest are also present. Schaffer Creek and several perennial and intermittent tributaries of Schaffer Creek flow through the northernmost portion of this subzone (EDAW/AECOM 2009).

Zone E (Habitat Conservation Area) is designated as a Habitat Conservation Area and is divided into three subzones that differ in their habitats, land uses, and in surrounding land uses. Subzone E1 is located at the southerly portion of the Northstar property and is surrounded by US Forest Service (USFS) land. It consists primarily of a south-facing slope and includes a portion of a tributary of Martis Creek. The vegetation is primarily white fir, white fir-Jeffrey pine, and red fir forests, but several other vegetation types are also present, including Jeffrey pine-juniper forest. It contains about 15 acres of open-canopied forest (3 percent of its forest acreage) but no other late-seral forest. The USFS has designated much of Subzone E1 and adjacent USFS land to the south and west as an Old Forest Emphasis Area (EDAW/AECOM 2009).

Subzone E2 is located in the western portion of the Northstar property. It includes portions of the southern slope of Sawtooth Ridge, the northern portion of Schaffer Creek, and segments of Martis Creek. This subzone's vegetation consists primarily of white fir-Jeffrey pine and red fir forests, but also includes large areas of white fir-montane chaparral and lodgepole pine, and a wet meadow. These forests contain approximately 239 acres of late-seral stands (about 16 percent of the subzone). Approximately 92 acres of these late-seral stands provide high quality habitat for target species associated with late-seral forests. Like Subzone E1, most of Subzone E2 is bordered by

USFS land and is considered an Old Forest Emphasis Area. However, a portion of Subzone E2 is bordered by private land to the north. The USFS has also designated a California Spotted Owl Protected Activity Center on USFS land adjacent to Subzone E2 (EDAW/AECOM 2009).

Subzone E3 is located at the northeasterly portion of the Northstar property. It is bordered on the west and south by State Route 267 and on the north and east by private land. Middle Martis Creek flows along its eastern and northern boundary. Its vegetation is primarily white fir-Jeffrey pine, and it does not contain stands of late-seral forest. This subzone includes a 500-foot-wide open space corridor along the eastern side of the State Route 267 right-of-way that was provided for in the Martis Valley Community Plan (EDAW/AECOM 2009).

### **Target Habitats**

#### *Late-Seral Conifer Forest*

Approximately 92.6 acres of late-seral forest occurs in the western portion of the PSA (**Figure 6-3**). The largest contiguous patches of this target habitat type occur in Zones D2 and E2; only two small fragments occur in Zone B. Focal species associated with the late-seral conifer forest target habitat include the California spotted owl (*Strix occidentalis occidentalis*), northern goshawk, American marten, and pileated woodpecker. The key ecological functions provided by this Target Habitat include:

- Provision of habitat structure suitable for uncommon or unique wildlife communities and sensitive species;
- Maintenance of movement, foraging, and breeding habitat for a variety of wildlife species;
- Significant contribution to local and regional biological diversity; and
- Soil stabilization and water quality maintenance in downstream areas (EDAW/AECOM 2009).

#### *Riparian and Aquatic Habitat*

Riparian and aquatic habitats include montane riparian, montane riparian-lodgepole pine, aspen, montane riparian-aspen, wet meadow, stream, and lacustrine habitats. Approximately 127 acres of riparian and aquatic habitat occur across all resource management zones within the PSA (**Figure 6-3**). Focal species associated with the riparian and aquatic target habitat include native fish communities, mountain yellow-legged frog (*Rana mucosa*), riparian bird communities, mule deer, willow flycatcher (*Empidonax traillii*), and Sierra Nevada mountain beaver (*Aplodontia rufa californica*). Mountain yellow-legged frogs have been reclassified as Sierra yellow-legged frogs (*Rana sierrae*) in the PSA and vicinity. Key ecological functions provided by these Target Habitats include:

- Significant contribution to local and regional biological diversity;
- Provision of habitat for neotropical migrant bird communities;
- Provision of wildlife movement and resting habitat;
- Maintenance of movement, foraging, and breeding habitat for a variety of wildlife species; and
- Water quality maintenance in downstream areas (EDAW/AECOM 2009).

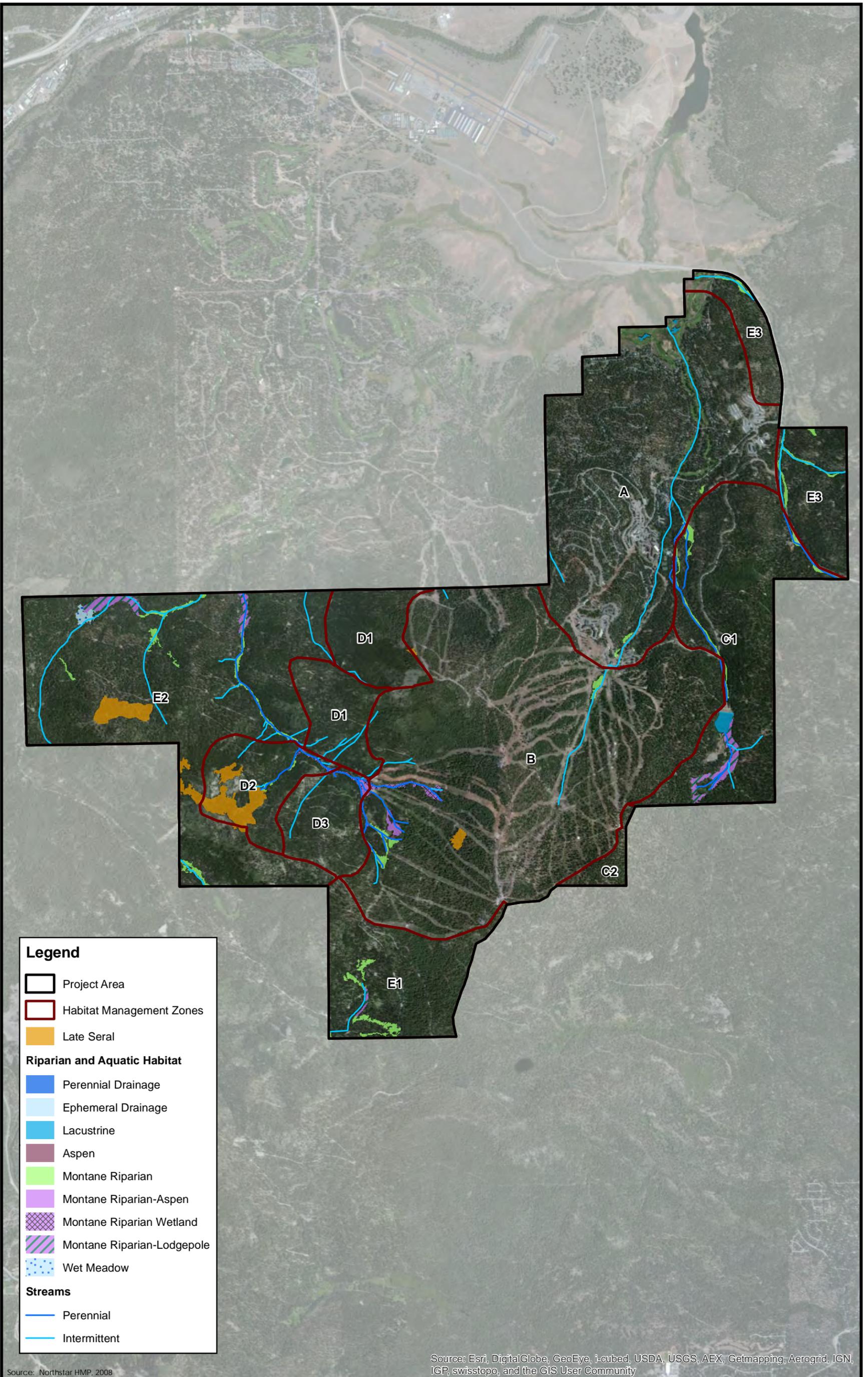


Figure 6-3  
Target Habitats



### ***Focal Species***

EDAW/AECOM employed geographic information system (GIS) models to characterize breeding and foraging habitat suitability for northern goshawk and California spotted owl within the PSA. These species were chosen for habitat modeling because although both species generally require mature forest for breeding habitat, their specific habitat requirements differ; their combined habitat associations likely encompass other late-seral focal species; and habitat and land use variables that account for most of the variation in habitat use patterns were available from land cover mapping and with minimal GIS processing. The models were based on four variables known or assumed to affect habitat suitability for northern goshawk and California spotted owl and included land cover type, forest structure variables, habitat patch size, and distance to a developed edge (EDAW/AECOM 2009).

In addition to northern goshawk and California spotted owl, GIS models were also developed to characterize habitat suitability for riparian and aquatic focal species, including the willow flycatcher and mule deer fawning. Data collected by EDAW/AECOM during a riparian and aquatic habitat assessment were used to develop these habitat suitability models and map species habitat distributions. These models apply to Zones C and D and to small portions of Zones A, B, and E. The majority of Zones A, B, and E were not included in the assessment; therefore, additional unmapped suitable habitat for these focal species may occur within these areas (EDAW/AECOM 2009). Exhibits 3-7 through 3-12 of the Northstar HMP identify habitat suitability for northern goshawk, California spotted owl, willow flycatcher, mule deer, and yellow-legged frog.

### ***Wildlife Movement Corridors***

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to (a) sustain species with specific foraging requirements, (b) preserve a species' distribution potential, and (c) retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource.

The riparian and open space corridors within the PSA and north of the PSA in the Martis Valley facilitate wildlife movement between the PSA and adjacent lands. In addition, as discussed above, the PSA serves as summer habitat for mule deer. Maintenance of connectivity between the on-site summer range and winter range in Nevada is essential for the long-term health of the mule deer population.

### ***Special-Status Species***

Candidate, sensitive, or 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. These species have been identified and assigned a status ranking by governmental agencies such as the CDFW, the USFWS, and private organizations such as the CNPS. The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species' or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For the purposes of this biological review, special-status species are defined by the following codes:

- Listed, proposed, or candidates for listing under the federal Endangered Species Act (ESA) (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) (FGC 1992 Section 2050 et seq.; 14 California Code of Regulations [CCR] Section 670.1 et seq.)
- Designated as Species of Special Concern by the CDFW
- Designated as Fully Protected by the CDFW (FGC Sections 3511, 4700, 5050, 5515)
- Species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380) including CNPS List Rank 1b and 2

The results of the USFWS, CDFW, and CNPS database queries identified several special-status species with the potential to be impacted by project-related activities. **Figure 6-4** depicts the CNDDDB results within 1 mile of the project, and **Table 6-1** provides a summary of all special-status species identified in the database results, a description of the habitat requirements for each species, and conclusions regarding the potential for each species to be impacted by project components.

### Special-Status Plants

Based on database search results, seven special-status plant species have the potential to occur in the PSA. Each special-status plant species that is considered in the impact analysis is described below based on the data obtained from the CNPS Inventory of Rare, Threatened, and Endangered Plants of California (2013).

#### ***Galena Creek rock cress (Arabis rigidissima var. demota)***

Galena Creek rock cress is designated as a CNPS List 1B.2 species. This species is a perennial herb that can be found in broadleaf upland forests and in upper montane coniferous forests at elevations between 7,442 and 8,448 feet. It occurs in rocky well-drained soils underlain by volcanic rock and typically blooms in August. This species is known in California from only two occurrences near Martis Peak, and in Nevada from eleven occurrences in the Carson Range.

#### ***Threetip sagebrush (Artemisia tripartite ssp. tripartita)***

Threetip sagebrush is designated as a CNPS List 2.3 species. This species is a perennial shrub commonly associated with rocky, volcanic soils in upper montane coniferous forest openings at elevations between 7,260 and 8,580 feet. The blooming period typically occurs in August. Four known occurrences of this species have been documented and are located in Nevada, Placer, and Plumas counties. The persistence of this species may be threatened by ski area development and maintenance.

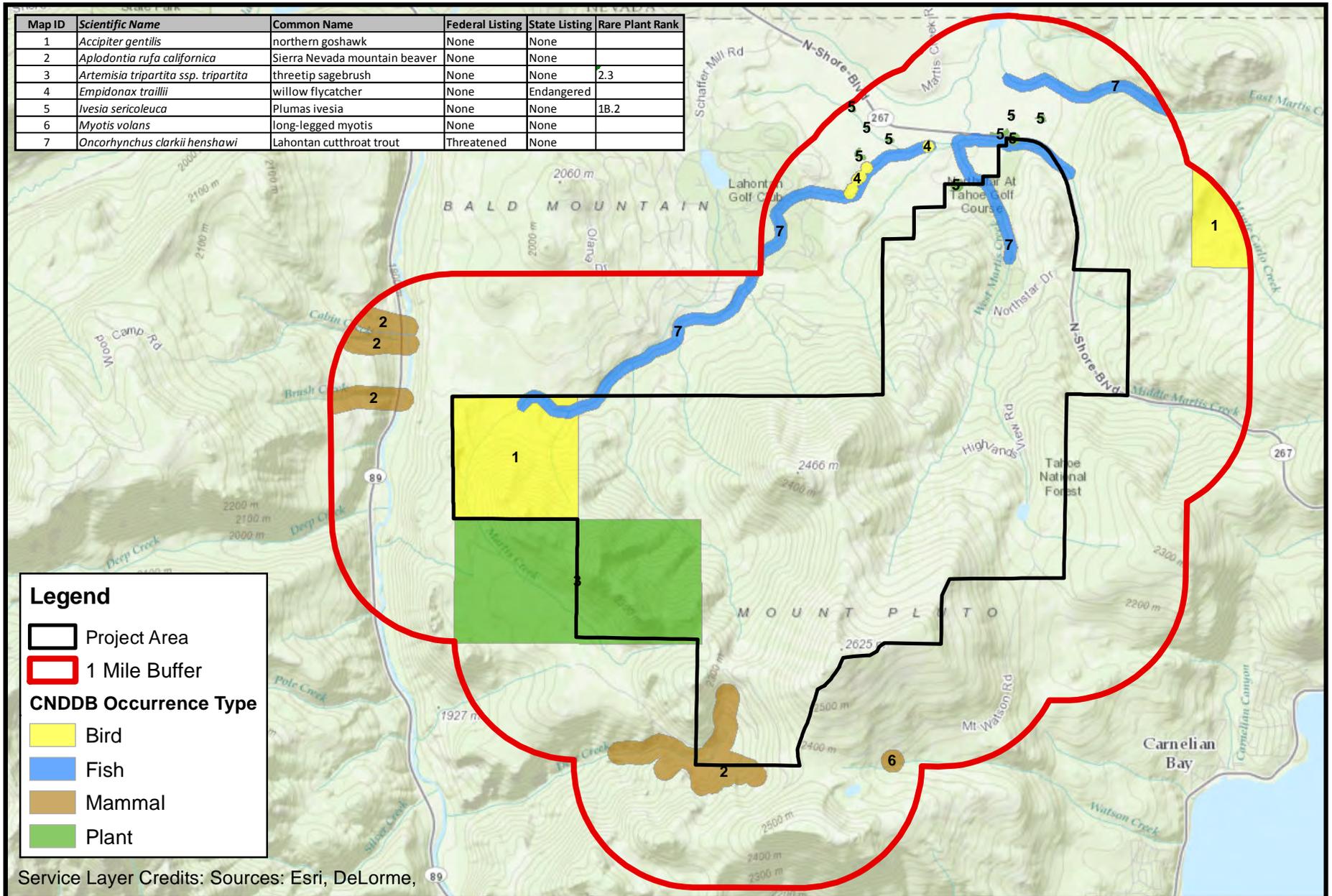


Figure 6-4  
Previously Recorded Occurrences of Special-status Species  
within One-mile of the Project Area

### ***Mingan moonwort (Botrychium minganense)***

Mingan moonwort is designated as a CNPS List 2.2 species. This species is a perennial rhizomatous herb that is normally associated with bogs, fens, and mesic portions of lower and upper montane coniferous forests at elevations between 4,800 and 6,945 feet. The blooming period is between July and September. This species is threatened by grazing, trampling, fire, vehicles, habitat alterations, and logging and associated road usage.

### ***Davy's sedge (Carex davyi)***

Davy's sedge is designated as a CNPS List 1B.3 species. This species is a perennial herb commonly associated with subalpine coniferous forests and upper montane coniferous forests at elevations between 4,950 and 10,560 feet. The blooming period is between May and August. This species is known from fewer than 20 occurrences and is threatened by grazing and logging.

### ***Donner Pass buckwheat (Eriogonum umbellatum var. torreyanum)***

Donner Pass buckwheat is designated as a CNPS List 1B.2 species. This species is a perennial herb that is typically associated with volcanic, rocky soils in meadows, seeps, and upper montane coniferous forests at elevations between 6,122 and 8,646 feet. The blooming period is between July and September. This species is known from 19 extant occurrences located in Nevada, Placer, and Sierra counties.

### ***Long-petaled lewisia (Lewisia longipetala)***

Long-petaled lewisia is designated as a CNPS List 1B.3 species. This species is a perennial herb associated with granitic soils in alpine boulder and rock fields, as well as mesic, rocky soils in subalpine coniferous forests between 8,250 and 9,650 feet. The blooming period is between July and September. This species is known from 14 occurrences and is possibly threatened by horticultural collecting.

**TABLE 6-1  
SPECIAL-STATUS SPECIES WITHIN THE PROJECT VICINITY**

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Habitat Present/Absent	Rationale
<b>Plants</b>							
<i>Arabis rigidissima</i> var. <i>demota</i>	Galena Creek rockcress	–	–	1B.2	Rocky soils in broad-leaved upland forest and upper montane coniferous forest (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Artemisia tripartita</i> ssp. <i>tripartita</i>	threetip sagebrush	–	–	2.3	Rocky, volcanic soils in upper montane coniferous forest openings (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Botrychium minganense</i>	Mingan moonwort	–	–	2.2	Mesic soils in bogs, fens, and upper and lower montane coniferous forests (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Carex davyi</i>	Davy’s sedge	–	–	1B.3	Subalpine coniferous forest and upper montane coniferous forest (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Carex lasiocarpa</i>	woolly-fruited sedge	–	–	2.3	Bogs, fens, marshes, and swamps (CNPS 2013).	A	No effect. Suitable habitat not present.
<i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	Donner Pass buckwheat	–	–	1B.2	Rocky, volcanic soils in meadows, seeps, and upper montane coniferous forests (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Ivesia sericoleuca</i>	Plumas ivesia	–	–	1B.2	Vernally mesic, usually volcanic soils associated with Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools (CNPS 2013).	A	No effect. Suitable habitat not present.
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	–	–	1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, as well as vernal pools (CNPS 2013).	A	No effect. Suitable habitat not present.
<i>Lewisia longipetala</i>	long-petaled lewisia	–	–	1B.3	Granitic soils associated with alpine boulder and rock field; as well as mesic, rocky subalpine coniferous forests (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Rhamnus alnifolia</i>	alder buckthorn	–	–	2.2	Lower montane coniferous forest, meadows and seeps, riparian scrub, and upper montane coniferous forest (CNPS 2013).	P	May affect. Suitable habitat present.
<i>Rorippa subumbellata</i>	Tahoe yellow cress	FC	FE	1B.1	Decomposed granitic beaches in lower montane coniferous forests, meadows and seeps (CNPS 2013).	A	No effect. Suitable habitat not present.
<i>Scutellaria galericulata</i>	marsh skullcap	–	–	2.2	Lower montane coniferous forest, meadows, seeps, marshes, and swamps (CNPS 2013).	A	No effect. Suitable habitat not present.

## 6.0 Biological Resources

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Habitat Present/Absent	Rationale
<i>Sphaeralcea munroana</i>	Munro's desert mallow	–	–	2.2	Great Basin scrub (CNPS 2013).	A	No effect. Suitable habitat not present.
<i>Stuckenia filiformis</i>	slender-leaved pondweed	–	–	2.2	Shallow marshes and swamps (CNPS 2013).	A	No effect. Suitable habitat not present.
<b>Fish</b>							
<i>Chasmistes cujus</i>	cui-ui	FE	–		Current distribution is now restricted to Pyramid Lake with spawning occurring in the lower Truckee, downstream of Derby Dam (USFWS 1992).	A	No effect. Project outside current species range.
<i>Oncorhynchus (=Salmo) clarki henshawi</i>	Lahontan cutthroat trout	FT	–		Generally inhabit lakes and streams. Spawning and nursery habitat characterized by cool water, pools in proximity to cover and velocity breaks, well-vegetated stable stream banks, and silt-free rocky substrates in riffle-run areas (USFWS 1995).	P	Not likely to adversely affect. Although Martis Creek historically provided suitable habitat for this species, the Martis Creek dam severed the connection to populations in the mainstem of the Truckee River.
<b>Amphibians</b>							
<i>Lithobates pipiens</i>	northern leopard frog	–	SSC		Current range in the region includes a population located south of Lake Tahoe in El Dorado and Alpine counties, and north of the project area in Plumas and Sierra counties (CDFW 2013d).	A	No effect. Project outside current species range.
<i>Rana sierrae</i>	Sierra Nevada yellow-legged frog	FC	SSC		Associated with streams, lakes, and ponds in montane riparian, lodgepole pine, subalpine conifer, and wet meadow habitats in elevations ranging from 1,370 meters (4,500 feet) to over 3,650 meters (11,980 feet) (CDFW 2013d).	P	May affect. Suitable habitat present.
<b>Birds</b>							
<i>Accipiter gentilis</i>	northern goshawk	–	SSC		Mature and old-growth forests including Pacific ponderosa pine, Jeffrey pine, lodgepole pine, mixed conifer, Douglas fir, mixed redwood-Douglas-fir hardwood, and quaking aspen (Shuford and Gardali 2008).	P	May affect. Suitable habitat present.
<i>Aquila chrysaetos</i> *	golden eagle	–	FP		Nests on cliffs with overhanging ledges and large trees for cover (CDFW 2013d).	P	May affect. Suitable habitat present.

# Northstar Mountain Master Plan EIR

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Habitat Present/Absent	Rationale
<i>Asio otus</i> *	long-eared owl	–	SSC		Requires riparian or other thickets of small, densely canopied trees for roosting and nesting. Uses old crow, magpie, hawk, heron, and squirrel nests in densely canopied areas (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Contopus cooperi</i> *	olive-sided flycatcher	–	SSC		Nesting habitat includes large, tall trees in mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Dendroica petechia brewsteri</i>	yellow warbler	–	SSC		Riparian vegetation along streams and in wet meadows. Willow cover and Oregon ash important predictors of abundance in Northern California (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Empidonax traillii</i>	willow flycatcher	–	SE		Obligate riparian breeders. Nest in willow or alder habitats associated with moist meadows, perennial streams, and smaller spring-fed or boggy areas (Craig and Williams 1998).	P	May affect. Suitable habitat present.
<i>Falco peregrinus</i> *	peregrine falcon	–	FP		Nests on high cliffs, banks, dunes, or mounds along wetlands, lakes, rivers, or other water bodies (CDFW 2013d),	A	No effect. Suitable habitat not present.
<i>Haliaeetus leucocephalus</i>	bald eagle	FD	SE		Nests in large, old-growth, or dominant live tree with open branch work, especially ponderosa pine. Requires large bodies of water or rivers with abundant fish, and adjacent snags (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Icteria virens</i> *	yellow-breasted chat	–	SSC		Found up to 4,800 feet in valley foothill riparian, and 6,500 feet east of the Sierra Nevada in desert riparian habitats (CDFW 2013d).	A	No effect. Project outside current species range.
<i>Picoides arcticus</i> *	black-backed woodpecker	FC	SC		Associated with boreal and montane forests that have experienced a recent (1–8 years) natural or prescribed burn. Feeds primarily on wood-boring beetle larvae, which decrease in abundance with time since fire occurrence (Bond, Siegel, and Craig 2012).	A	No effect. No recently (within 1–8 years) burned forest areas on-site; therefore, suitable habitat is not present. However, this species may immigrate to the site in the event a fire does occur.

## 6.0 Biological Resources

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Habitat Present/Absent	Rationale
<i>Strix occidentalis caurina</i>	California spotted owl	–	SSC		Forests and woodlands with large mature trees and snags containing a high basal area, dense canopy (>70%) cover, multiple canopy layers, and downed woody debris (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Xanthocephalus xanthocephalus</i> *	yellow-headed blackbird	–	SSC		Colonial nesters in dense, emergent, large wetlands of cattails, tules, other plants, often along borders of lakes/ponds (CDFW 2013d).	A	No effect. Suitable habitat not present.
<b>Mammals</b>							
<i>Antrozous pallidus</i> *	pallid bat	–	SSC		Common in open, dry habitats including grasslands, shrublands, woodlands, and forests with rocky areas for roosting (CDFW 2013d)	P	May affect. Suitable habitat present.
<i>Aplodontia rufa californica</i>	Sierra Nevada mountain beaver	–	SSC		Dense riparian, deciduous and open, brushy stages of most forest types, with montane riparian representing the typical habitat association in the Sierra Nevada (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Corynorhinus townsendii</i> *	Townsend's big-eared bat	–	SSC		Most abundant in mesic habitats. Roosts in caves, mines, tunnels, buildings, or other human-made structures (CDFW 2013d)	P	May affect. Suitable habitat present.
<i>Euderma maculatum</i> *	spotted bat	–	SSC		Optimal habitats include arid deserts, grasslands, and mixed conifer forests from sea level to 10,000 feet. Roosts in rock crevices (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Gulo gulo</i>	California wolverine	FC	ST		Mixed conifer, red fir, and lodgepole habitat. Probably associated with subalpine conifer, alpine dwarf-shrub, wet meadow, and montane riparian habitats between 4,300 feet and 7,300 feet (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Lasiurus blossevillii</i> *	western red bat	–	SSC		Occurs from Shasta County south to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts (CDFW 2013d).	A	No effect. Project outside current species range.

# Northstar Mountain Master Plan EIR

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Habitat Present/Absent	Rationale
<i>Lepus americanus tahoensis</i>	Sierra Nevada snowshoe hare	–	SSC		Montane riparian with thickets of alders and willows; stands of young conifers interspersed with chaparral; early seral stages of mixed conifer, subalpine conifer, red fir, Jeffrey pine, lodgepole pine, and aspen along edges, near meadows (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Lepus townsendii townsendii</i>	western white-tailed jackrabbit	–	SSC		Sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, perennial grassland, low sagebrush, wet meadow, and early successional stages of various conifer habitats (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Martes pennati</i>	fisher	FC	–		Mixed evergreen forests with >40% canopy closure, large trees, and snags (CDFW 2013d).	P	May affect. Suitable habitat present.
<i>Myotis evotis</i> *	long-eared myotis	–	–		Found in nearly all brush, woodland, and forest habitats from sea level to 9,000 feet. Roosts in buildings crevices, spaces under bark, and snags (CDFW 2013d).	P	May affect. Suitable habitat present; however, not discussed further in the impact analysis below because this species is not considered to be special-status.
<i>Myotis thysanodes</i> *	fringed myotis	–	–		Optimal habitats are pinyon-juniper, valley foothill hardwood, and hardwood conifer between 4,000 and 7,000 feet. Roosts in caves, mines, buildings, and crevices (CDFW 2013d).	P	May affect. Suitable habitat present; however, not discussed further in the impact analysis below because this species is not considered to be special-status.
<i>Myotis ymanensis</i> *	Yuma myotis	–	–		Rare above 8,000 feet. Optimal habitats are open forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, or crevices (CDFW 2013d).	P	May affect. Suitable habitat present; however, not discussed further in the impact analysis below because this species is not considered to be special-status.
<i>Vulpes vulpes necator</i>	Sierra Nevada red fox	–	ST		Alpine dwarf-shrub, wet meadow, subalpine conifer, lodgepole pine, red fir, aspen, montane chaparral, montane riparian, mixed conifer, ponderosa pine, Jeffrey pine, eastside pine, and montane hardwood-conifer (CDFW 2013d).	P	May affect. Suitable habitat present.

\* Species not returned in any database queries; added at the request of Placer County staff.

<b>Key</b>	
<b>Federal &amp; State Status</b>	<b>CNPS Rare Plant Rank</b>
(FE) Federal Endangered	<i>Rareness Ranks</i>
(FT) Federal Threatened	(1A) Presumed Extinct in California
(FC) Federal Candidate	(1B) Rare, Threatened, or Endangered in California and Elsewhere
(FD) Federally Delisted	(2) Rare, Threatened, or Endangered in California, But More Common Elsewhere
(SE) State Endangered	(3) More Species Information Needed
(ST) State Threatened	(4) Limited Distribution
(SSC) State Species of Special Concern	<i>Threat Ranks</i>
(SC) State Candidate	(0.1) Seriously threatened in California
(FP) Fully Protected	(0.2) Fairly threatened in California
	(0.3) Not very threatened in California

### ***Alder buckthorn (Rhamnus alnifolia)***

Alder buckthorn is designated as a CNPS List 2.2 species. This species is a perennial deciduous shrub that is typically found in lower montane coniferous forest, meadows and seeps, riparian scrub, and upper montane coniferous forest at elevations between 4,520 and 7,025 feet. The blooming period is between May and July. This species is known from 15 occurrences and is threatened by grazing and possibly road maintenance.

### **Special-Status Wildlife**

Based on database search results, 18 special-status wildlife species have the potential to occur in the PSA. The American marten and mule deer were also added to the discussion below due to known occurrences within the PSA and inclusion as focal species in the Northstar HMP. Each species that is considered in the impact analysis is described below based on the data obtained from various published data sources.

### ***Sierra yellow-legged frog (Rana sierrae)***

The Sierra yellow-legged frog is federally listed as a candidate for listing and is a California species of special concern. This species is typically associated with ponds, lakes, and streams in montane riparian, lodgepole pine, subalpine conifer, and wet meadow communities. Suitable breeding habitat is considered to be low-gradient (up to 4 percent) perennial streams and lakes. These stream types generally have the potential for deep pools and undercut banks, which provide habitat for this frog. In the Sierra Nevada, this frog occurs from 4,500 to 12,000 feet in elevation. The decline of Sierra yellow-legged frog has been attributed to the introduction of trout during the last century. Adults overwinter underwater and the tadpoles take more than one season to undergo metamorphosis, making them vulnerable to predation by introduced fish (CDFW 2013d). A historic sighting of this species was recorded in the Mount Rose area more than 40 years ago (CDFW 2013a). In the Lake Tahoe Basin, this species has only been detected at two sites in the Desolation Wilderness Area (CDFW 2013a). Opportunities for colonization of the PSA by Sierra yellow-legged frogs are extremely low since the known populations for this amphibian occur more than 20 miles away in the southeastern portion of the Lake Tahoe Basin.

### ***Northern goshawk (Accipiter gentilis)***

The northern goshawk is listed as a California species of special concern. This species breeds in middle (2,500 feet) to higher elevation (higher than 10,000 feet) mature, dense conifer forests in the North Coast Ranges through the Sierra Nevada and the Klamath, Cascade, Warner, Mount Pinos, San Jacinto, San Bernardino, and White mountains. Typical habitat associations include Pacific ponderosa pine, Jeffrey pine, lodgepole pine, mixed conifer, white fir, California red fir, Douglas fir, mixed redwood-Douglas fir-hardwood, rarely pinyon-juniper, and mature quaking aspen stands within aspen-shrub steppe vegetation. Nest sites are usually along north slopes, near water, in areas where canopy cover is between 60 and 100 percent, and nests are usually placed in the lower one-third of the tree (CDFW 2013d).

Goshawks breed from mid-March to early September, with a peak from early May to mid-July. Six previously recorded occurrences are within a 5-mile radius of the PSA, two of which are within 1 mile (CDFW 2013a). Suitable nesting and foraging habitat for this species is present in the PSA. In addition, active nesting has been documented within the PSA (EDAW/AECOM 2009).

### ***Golden eagle (Aquila chrysaetos)***

The golden eagle is a California fully protected species and is federally protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the Lacey Act. Golden eagles typically inhabit rolling foothills, mountain areas, sage-juniper flats, and desert habitats from sea level up to 11,500 feet (CDFW 2013d). Nest sites are typically on cliffs and in large trees in open areas. No recorded occurrences of golden eagle were found within 10 miles of the PSA in the CNDDDB (CDFW 2013a). Although this species is unlikely to use the habitat within the PSA for nesting, it may nest on adjacent lands and use the PSA for foraging.

### ***Long-eared owl (Asio otus)***

The long-eared owl is a California species of special concern. This is an uncommon yearlong resident throughout California with the exception of the Central Valley and Southern California deserts (CDFW 2013d). This species utilizes riparian habitat, live oak thickets, and other dense stands of small densely canopied trees for roosting and nesting (CDFW 2013d). No recorded occurrences of long-eared owl were found within 10 miles of the PSA in the CNDDDB (CDFW 2013a); however, suitable habitat for this species exists within the PSA.

### ***Olive-sided flycatcher (Contopus cooperi)***

The olive-sided flycatcher is a California species of special concern. This species is a common to uncommon summer resident in a variety of forest and woodland habitats below 9,000 feet. Mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine communities represent preferred nesting habitats. No recorded occurrences of olive-sided flycatcher were found within 10 miles of the PSA in the CNDDDB (CDFW 2013a); however, suitable habitat for this species exists within the PSA.

### ***Yellow warbler (Dendroica petechia brewsteri)***

The yellow warbler is a California species of special concern. Breeding distribution includes the Coast Range in Del Norte County, east to the Modoc plateau, south along the Coast Range to Santa Barbara and Ventura counties, along the western slope of the Sierra Nevada south to Kern County, and along the eastern side of California from Lake Tahoe south through Inyo County. Breeding habitat includes riparian woodlands from coastal and desert lowlands up to 8,000 feet in the Sierra Nevada. Other breeding habitats include montane chaparral, open ponderosa pine, and mixed conifer habitats with substantial shrub cover (CDFW 2013d). Several of the on-site vegetative communities could provide suitable breeding habitat for yellow warbler. The presence of suitable habitat combined with the proximity of occurrences (two within a 5-mile radius) result in the potential for this species to occur within the PSA.

### ***Willow flycatcher (Empidonax traillii)***

The willow flycatcher is listed by the State of California as endangered. In the Sierra Nevada, breeding habitat typically consists of montane meadows that support deciduous riparian shrubs (e.g., willows) and remain wet through mid-summer. This species ranges from approximately 2,000 to 8,000 feet in elevation (CDFW 2013d). Based on the riparian and aquatic assessment, a limited amount of suitable habitat is concentrated in the Schaffer Creek complex and along West Martis Creek. Small amounts of suitable habitat could occur outside the riparian assessment area (e.g., near the golf course and the Martis Valley) (EDAW/AECOM 2009).

Four previously recorded occurrences are within a 5-mile radius of the PSA, two of which are within a 1-mile radius (CDFW 2013a). Surveys were conducted by EDAW in 2006 along the west fork of West Martis Creek, and in 2007 along a portion of Schaffer Creek and West Martis Creek; however, nesting was not observed (EDAW/AECOM 2009). Although no willow flycatchers were detected during these surveys, presence of suitable habitat on and adjacent to the PSA along with the proximity of known occurrences result in the potential for this species to occur on-site.

### ***Bald eagle (Haliaeetus leucocephalus)***

The bald eagle has been federally delisted; however, it is still a California endangered species and protected under the Bald and Golden Eagle Protection Act and the Migratory Bird and Treaty Act (MBTA). Bald eagles typically nest within 1 mile of lake margins and rivers. Nest sites are usually in large, old growth or dominant live trees with open branches. These birds roost communally in the winter (CDFW 2013d). One previously recorded occurrence is within a 5-mile radius of the PSA (CDFW 2013a). Although this species is unlikely to use the habitat within the PSA for nesting, it may nest on adjacent lands and use the PSA for foraging.

### ***California spotted owl (Strix occidentalis occidentalis)***

The California spotted owl is a California species of special concern. This species is typically associated with multilayered mixed conifer, redwood, and Douglas fir habitat from sea level up to 7,600 feet. Roost site selection appears to be correlated with thermoregulation and an inability to tolerate high temperatures; therefore, summer roost sites are typically characterized by dense canopy cover on north-facing slopes. Nest sites are usually in a tree or snag cavity, or in the broken top of a large tree; however, the owls may also nest in clumps of mistletoe, abandoned raptor or raven nests, caves or crevices, cliffs, or on the ground. This species requires large blocks (100–600 acres) of mature forest, with permanent water and suitable nesting habitat. In Northern California, narrow, steep-sided canyons with north-facing slopes appear to be the preferred location (CDFW 2013d). Three activity centers occur within 1 mile of the PSA, one of which occurs inside the PSA boundary (**Figure 6-5**) (CDFW 2013b).

### ***Pallid bat (Antrozous pallidus)***

The pallid bat is a California species of special concern. This species is locally common in the lower elevations of California and occurs throughout the state, with the exception of the high Sierra Nevada from Shasta to Kern counties. Pallid bats occupy grasslands, shrublands, woodlands, and forest, and are most common in open, dry habitats with rocky areas for roosting. Caves, crevices, mines, hollow trees, and buildings provide suitable day roosting habitat, while night roosts are in more open sites such as porches and open buildings (CDFW 2013d). No recorded occurrences of pallid bat were found within 10 miles of the PSA in the CNDDDB (CDFW 2013a); however, suitable habitat for this species exists within the PSA.

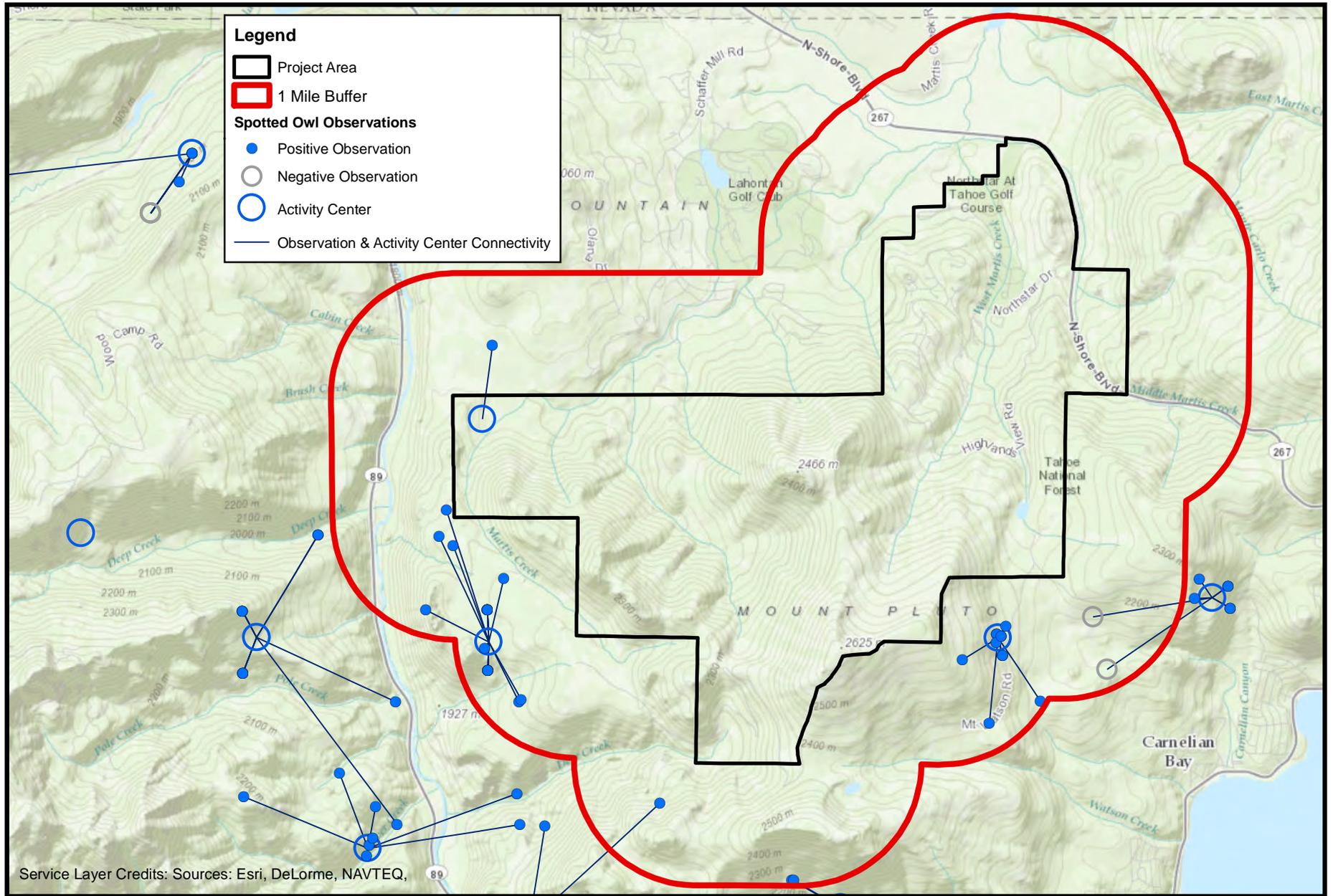


Figure 6-5  
Spotted Owl Observations  
within One-mile of the Project Area

### ***Sierra mountain beaver (Aplodontia rufa californica)***

The Sierra mountain beaver is a California species of special concern that occurs in dense growths of small deciduous trees and shrubs with wet soil and an abundance of forbs in the Sierra Nevada and eastern slope. The Sierra Nevada mountain beaver's preferred habitat is wet meadow areas adjacent to streams with deep soils allowing for easy burrowing. This species needs dense understory for food and cover and an abundant supply of water. They feed on vegetative parts of plants, mostly blackberry (*Rubus* spp.), dogwood (*Cornus* spp.), lupines (*Lupinus* spp.), willows (*Salix* spp.), and grasses. This species has been observed in Alpine, Calaveras, El Dorado, Fresno, Lassen, Mariposa, Mono, Placer, Tulare, and Tuolumne counties at elevations ranging from 3,904 feet to over 10,105 feet above mean sea level. Mountain beavers breed from December through March with a peak in February (CDFW 2013d). Eight previously recorded occurrences are within a 5-mile radius of the PSA, four of which are within a 1-mile radius (CDFW 2013a). Suitable habitat is present within the PSA, surrounding drainages, and other aquatic features.

### ***Townsend's big-eared bat (Corynorhinus townsendii)***

The Townsend's big-eared bat is a California species of special concern. This species is found throughout California; however, details regarding its distribution are not well known. Townsend's big-eared bats occupy mesic habitats in subalpine and alpine regions and require caves, mines, tunnels, buildings, or other human-made structures for roosting (CDFW 2013d). No recorded occurrences of Townsend's big-eared bat were found within 10 miles of the PSA in the CNDDDB (CDFW 2013a); however, suitable habitat for this species exists within the PSA.

### ***Spotted bat (Euderma maculatum)***

The spotted bat is a California species of special concern. This species occupies arid deserts, grasslands, and mixed conifer forests from sea level to 10,000 feet. Sites with adequate roosting habitat, such as cliffs and rock crevices, are preferred; however, they are occasionally found in caves. No recorded occurrences of spotted bat were found within 10 miles of the PSA in the CNDDDB (CDFW 2013a); however, suitable habitat for this species exists within the PSA.

### ***California wolverine (Gulo gulo)***

The California wolverine is state listed as threatened. This species is a solitary and wide-ranging carnivore. It occurs at relatively low population densities in alpine and arctic tundra, boreal and mountain forests (primarily coniferous). It is limited to mountains in the south, especially large wilderness areas, usually in areas with snow on the ground in winter. Riparian areas may be important winter habitat. When inactive, this species occupies dens in caves, rock crevices, under fallen trees, in thickets, or similar sites. Young are born in a den among rocks or tree roots, in a hollow log, under a fallen tree, or in dense vegetation, including sites under snow. This species typically breeds from April to October, with peak breeding occurring during the summer months (CDFW 2013d). One previously recorded occurrence, dated 1953, is within a 5-mile radius of the PSA (CDFW 2013a). Only one individual has been documented in recent years (2008 to present) in California in the Tahoe National Forest area. Although suitable habitat for this species is present within the PSA, it is considered highly unlikely that this species occurs in the PSA.

### ***Sierra Nevada snowshoe hare (Lepus americanus tahoensis)***

The Sierra Nevada snowshoe hare is a California species of special concern. This species prefers boreal riparian-forested areas within the Sierra Nevada and particularly riparian forest that includes willows or alders (CDFW 2013d). Suitable habitat is present within the PSA. Two previously recorded occurrences are within a 5-mile radius of the PSA (CDFW 2013a). The

greatest potential for presence of this species is within the riparian and thick willow habitats, where there are large stands of trees near water.

### ***Western white-tailed jackrabbit (Lepus townsendii townsendii)***

The western white-tailed jackrabbit is a California species of special concern. This species is an uncommon to rare year-round resident of the crest and upper eastern slope of the Sierra Nevada, primarily from the Oregon border south to Tulare and Inyo counties. Formerly widespread throughout its range, its population is now fragmented, and numbers apparently have declined drastically. Preferred habitats are sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland; however, it also uses low sagebrush, wet meadow, and early successional stages of various conifer habitats. There is seasonal movement from higher to lower elevations in winter. They prefer open areas with scattered shrubs. Like other hares, this species takes cover in a shallow depression, usually in shrubby underbrush. They also use thickets of young conifers or low branches of stunted conifers for cover (CDFW 2013d). Suitable habitat is present within the PSA, and one previously recorded occurrence is within a 5-mile radius of the PSA (CDFW 2013a).

### ***American marten (Martes americana)***

The American marten is a California species of special concern. It is an uncommon to common, permanent resident of the North Coast region, Sierra Nevada, Klamath, and Cascade mountains. This species is typically associated with red fir, lodgepole pine, subalpine conifer, mixed conifer, Jeffrey pine, and eastside pine communities that contain large, mature trees and snags, with greater than 40 percent closure. This species utilizes a variety of different-aged forest stands, particularly old-growth conifers and snags. These habitats provide adequate cover and larger trees, snags, stumps, logs, burrows, caves, and crevices used for cover and denning. They tend to travel along ridgelines and rarely will move through habitats lacking canopy cover. Small clearings, meadows, and riparian areas provide foraging habitat for small mammals (CDFW 2013d). One occurrence of a Sierra marten (*Martes americana sierrae*) was identified within 5 miles of the PSA (CDFW 2013a). In addition, the Northstar HMP reports that American martens are known to occur regularly on adjacent US Forest Service lands (EDAW/AECOM 2009).

### ***Fisher (Martes pennati)***

The fisher is federally listed as a candidate species. This species occupies mixed conifer-hardwood forests from approximately 1,970 to 8,520 feet in elevation in the Sierra Nevada. Non-forested habitats including open forest, grassland, and wetland habitats are largely avoided, and the species does not occur in high elevation subalpine and alpine environments. The current range for fisher in California is split into two disjunct populations. One population occurs in Northern California and southern Oregon, and the other population occurs in the southern Sierra Nevada. The southern Sierra Nevada population occupies the west slope of the mountain range from the Merced River south to the Greenhorn Mountains and includes portions of Mariposa, Madera, Fresno, Tulare, and Kern counties (USFWS 2010). The current range for fishers in the Sierra Nevada doesn't extend to the PSA; therefore, it is unlikely this species will be impacted by project-related activities.

### ***Mule deer (Odocoileus hemionus)***

Mule deer are a Lake Tahoe Basin Management Unit Management Indicator Species. The species is widespread throughout California in most forest, woodland, and brush habitats. Mule deer prefer a mosaic of vegetative cover that provides woody cover, meadow and shrubby openings, and water. Fawning occurs in moderately dense shrublands and forests, dense herbaceous areas, and high elevation riparian and mountain shrub habitats that contain adequate forage and water.

Fawning occurs from early April to midsummer and varies based on snowpack conditions (CDFW 2013d).

The mule deer that occur in the PSA and vicinity are associated with the Loyalton-Truckee Deer Herd. This herd is subdivided into the Sierra Valley sub-unit in the north and the Verdi sub-unit in the south. The mule deer that occur in the project vicinity are associated with the Verdi sub-unit. The winter range for this population is located mostly in Nevada, with summer ranges occurring south of Interstate 80 (I-80), from approximately 6,000 to 9,000 feet elevation, in sagebrush and Jeffrey pine communities. The construction of I-80 in the 1960s created a barrier to deer populations located to the north and south of the Truckee River. No migration/movement studies have been conducted on the Verdi sub-unit since the 1982 Loyalton-Truckee Deer Herd Plan; however, a study was initiated in 2009 to update movement data in this portion of the herd. Preliminary data identified that two of the does collared in the study cross I-80 to move between their summer and winter range (CDFG 2010).

Mule deer are known to occur in the PSA during migration and breeding season. In addition, two fawns were observed on Sawtooth Ridge in the PSA on June 7, 2007 (EDAW/AECOM 2009). In addition, the CDFW identified and mapped fawning areas within the PSA (EDAW/AECOM 2009).

### ***Sierra Nevada red fox (*Vulpes vulpes necator*)***

The Sierra Nevada red fox is state listed as threatened. Sierra Nevada populations may be found in a variety of habitats, including alpine dwarf-shrub, wet meadow, subalpine conifer, lodgepole pine, red fir, aspen, montane chaparral, montane riparian, mixed conifer, and ponderosa pine. Jeffrey pine, eastside pine, and montane hardwood-conifer also are used. Most sightings in the Sierra Nevada are above 7,217 feet; however, their range extends from 3,937 to 10,105 feet. This species uses dense vegetation and rocky areas for cover and den sites. In the Sierra Nevada, the preferred habitats include forests interspersed with meadows or alpine fell-fields. Open areas are used for hunting, forested habitats for cover and reproduction. One previously recorded occurrence is within a 5-mile radius of the PSA (CDFW 2013a), and suitable habitat for this species exists within the PSA.

## **6.2 REGULATORY FRAMEWORK**

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

### **6.2.1 FEDERAL**

#### **Endangered Species Act**

The Endangered Species Act of 1973 (ESA), as amended, provides protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code (USC) Sections 1531–1544). The ESA defines “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Title 50, Part 222, of the Code of Federal Regulations (50 CFR Section 222), further defined “harm” to include “an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering.”

ESA Section 7(a)(1) requires federal agencies to utilize their authority to further the conservation of listed species. ESA Section 7(a)(2) requires consultation with the US Fish and Wildlife Service or the National Marine Fisheries Service (NMFS) if a federal agency undertakes, funds, permits, or authorizes (termed the federal nexus) any action that may affect endangered or threatened species, or designated critical habitat. For projects that may result in the incidental “take” of threatened or endangered species, or critical habitat, and that lack a federal nexus, a Section 10(a)(1)(b) incidental take permit can be obtained from the USFWS and/or the NMFS.

### **Clean Water Act**

The basis of the Clean Water Act (CWA) was established in 1948; however, it was referred to as the Federal Water Pollution Control Act. The act was reorganized and expanded in 1972 (33 USC Section 1251), and at this time the Clean Water Act became the act’s commonly used name. The basis of the CWA is the regulation of pollutant discharges into waters of the United States (WoUS), as well as the establishment of surface water quality standards.

### **Section 404**

CWA Section 404 (33 USC Section 1344) established the program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Under this regulation, certain activities proposed within WoUS require the obtainment of a permit prior to initiation. These activities include, but are not limited to, placement of fill for the purposes of development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and bridges), and mining operations.

The primary objective of this program is to ensure that the discharge of dredged or fill material is not permitted if a practicable alternative to the proposed activities exists that results in less impact to WoUS or if the proposed activity would result in significant adverse impacts to WoUS. To comply with these objectives a permittee must document the measures taken to avoid and minimize impacts to waters of the United States and provide compensatory mitigation for any unavoidable impacts.

The US Environmental Protection Agency (EPA) and the USFWS are assigned roles and responsibilities in the administration of this program; however, the US Army Corps of Engineers (USACE) is the lead agency in the administration of day-to-day activities, including issuance of permits. The agencies will typically assert jurisdiction over the following waters (1) traditional navigable waters (TNW); (2) wetlands adjacent to TNWs; and (3) relatively permanent waters (RPW) that are non-navigable tributaries to TNWs, and have relatively permanent flow or seasonally continuous flow (typically three months); as well as (4) wetlands that directly abut RPWs. Case-by-case investigations are usually conducted by the agencies to ascertain their jurisdiction over waters that are non-navigable tributaries and do not contain relatively permanent or seasonal flow, wetlands adjacent to the aforementioned features, and wetlands adjacent to but not directly abutting RPWs (USACE 2007). Jurisdiction is not generally asserted over swales or erosional features (e.g., gullies or small washes characterized by low-volume/short-duration flow events) or ditches constructed wholly within and draining only uplands that do not have relatively permanent flows.

The extent of jurisdiction within waters of the United States that lack adjacent wetlands is determined by the ordinary high water mark (OHWM). The OHWM is defined in 33 CFR Section 328.3(e) as the “line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.” Wetlands are

further defined under 33 CFR Section 328.3 and 40 CFR Section 230.3 as “those areas that are inundated or saturated by surface or ground water 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”; and typically include “swamps, marshes, bogs, and similar areas.” The 1987 Corps of Engineers Wetland Delineation Manual (1987 Manual) sets forth a standardized methodology for delineating the extent of wetlands under federal jurisdiction.

The 1987 Manual outlines three parameters that all wetlands, under normal circumstances, must contain positive indicators for to be considered jurisdictional. These parameters include (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils (USACE 1987). In 2006 the USACE issued a series of Regional Supplements to address regional differences that are important to the functioning and identification of wetlands. The supplements present “wetland indicators, delineation guidance, and other information” that is specific to the region. The USACE requires that wetland delineations submitted after June 5, 2007, be conducted in accordance with both the 1987 Manual and the applicable supplement.

### **Section 401**

Under CWA Section 401 (33 USC Section 1341), federal agencies are not authorized to issue a permit and/or license for any activity that may result in discharges to WoUS, unless a state or tribe where the discharge originates either grants or waives CWA Section 401 certification. CWA Section 401 provides states or tribes with the ability to grant, grant with conditions, deny, or waive certification. Granting certification, with or without conditions, allows the federal permit/license to be issued and remain consistent with any conditions set forth in the CWA Section 401 Certification. Denial of the certification prohibits the issuance of the federal license or permit, and a waiver allows the permit/license to be issued without state or tribal comment. Decisions made by states or tribes are based on the proposed project’s compliance with EPA water quality standards as well as with applicable effluent limitations guidelines, new source performance standards, toxic pollutant restrictions, and any other appropriate requirements of state or tribal law. In California, the State Water Resources Control Board is the primary regulatory authority for CWA Section 401 requirements (additional details below).

### **Migratory Bird Treaty Act**

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Section 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Section 21). The majority of birds found in the project vicinity would be protected under the MBTA.

### **Bald and Golden Eagle Protection Act**

The bald eagle and golden eagle are federally protected under the Bald and Golden Eagle Protection Act (16 USC Sections 668–668c). Under the act, it is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export, or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

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

This executive order directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. The order further directs federal agencies

to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species. As part of the proposed action, the USFWS and the USACE would issue permits and therefore would be responsible for ensuring that the proposed action complies with Executive Order 13112 and does not contribute to the spread of invasive species.

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

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

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

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

## **6.2.2 STATE**

### **California Endangered Species Act**

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC Section 2070). The CDFW also maintains a list of “candidate species,” which are species formally noticed as being under review for potential addition to the list of endangered or threatened species; and a list of “species of special concern,” which serve as a species “watch lists.”

Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state listed endangered or threatened species may be present, and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of the CESA. “Take” of protected species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit.

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

#### ***Streambed Alteration Agreement (FGC Sections 1600–1607)***

State and local public agencies are subject to FGC Section 1602, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed,

channel, or bank of any river, stream, or lake designated as waters of the state by the CDFW. Under FGC Section 1602, a discretionary Streambed Alteration Agreement must be issued by the CDFW to the project proponent prior to the initiation of construction activities within lands under CDFW jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

### **Native Plant Protection Act**

The Native Plant Protection Act (FGC Sections 1900–1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by the CDFW). An exception in the act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give that state agency at least 10 days to retrieve the plants before they are plowed under or otherwise destroyed (FGC Section 1913). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

### **Birds of Prey**

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey); or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

### **“Fully Protected” Species**

California statutes also afford “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be “taken,” even with an incidental take permit. FGC Section 3505 makes it unlawful to “take” “any egret or egret, osprey, bird of paradise, gaura, numidi, or any part of such a bird.” FGC Section 3511 protects from “take” the following fully protected birds: (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna albifrons browni*); (g) golden eagle (*Aquila chrysaetos*); (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

FGC Section 4700 identifies the following fully protected mammals that cannot be “taken”:

- (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*);
- (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*);
- (c) Northern elephant seal (*Mirounga angustirostris*);
- (d) Guadalupe fur seal (*Arctocephalus townsendi*);
- (e) ring-tailed cat (genus *Bassariscus*);
- (f) Pacific right whale (*Eubalaena sieboldi*);
- (g) salt-marsh harvest mouse (*Reithrodontomys raviventris*);
- (h) southern sea otter (*Enhydra lutris nereis*); and
- (i) wolverine (*Gulo gulo*).

FGC Section 5050 protects from “take” the following fully protected reptiles and amphibians:

- (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*);
- (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*);
- (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*);
- (d) limestone salamander (*Hydromantes brunus*); and
- (e) black toad (*Bufo boreas exsul*).

FGC Section 5515 also identifies certain fully protected fish that cannot lawfully be “taken” even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicktail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen texanus*); (h) Owens River pupfish (*Cyprinoden radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperrimus*).

### **California Wetlands and Other Waters Policies**

The California Resources Agency and its various departments do not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands. Exceptions may be granted if all of the following conditions are met:

- The project is water-dependent.
- No other feasible alternative is available.
- The public trust is not adversely affected.
- Adequate compensation is proposed as part of the project.

### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act of 1966 (California Water Code Section 13000 et seq.; CCR Title 23, Chapter 3, Subchapter 15) is the primary state regulation that addresses water quality. The requirements of the act are implemented by the State Water Resources Control Board (SWRCB) at the state level and by the Regional Water Quality Control Board (RWQCB) at the local level. The RWQCB carries out planning, permitting, and enforcement activities related to water quality in California. The act provides for waste discharge requirements and a permitting system for discharges to land or water. Certification is required by the RWQCB for activities that can affect water quality.

### **Clean Water Act, Section 401 Water Quality Certification**

CWA Section 401 (33 USC Section 1341) requires that any applicant for a federal license or permit, which may result in a pollutant discharge to WoUS, obtain a certification that the discharge will comply with EPA water quality standards. The state or tribal agency responsible for issuance of the Section 401 certification may also require compliance with additional effluent limitations and water quality standards set forth in state/tribal laws. In California, the SWRCB is the primary regulatory authority for CWA Section 401 requirements.

The Lahontan Regional Water Quality Control Board is responsible for enforcing water quality criteria and protecting water resources in the project area. In addition, the RWQCB is responsible for controlling discharges to surface waters of the state by issuing waste discharge requirements or commonly by issuing conditional waivers to waste discharge requirements. The RWQCB requires that a project proponent obtain a CWA Section 401 water quality certification for CWA Section 404 permits issued by the USACE. A request for water quality certification (including waste discharge requirements) by the RWQCB and an application for a General Permit for Storm Water Discharges Associated with Construction Activities are prepared and submitted following completion of the CEQA environmental document and submittal of the wetland delineation to the USACE.

### ***Delegated Permit Authority***

California has been delegated permit authority for the National Pollutant Discharge Elimination System (NPDES) permit program including stormwater permits for all areas except tribal lands. Issuance of CWA Section 404 dredge and fill permits remains the responsibility of the USACE; however, the state actively uses its CWA Section 401 certification authority to ensure CWA Section 404 permits are in compliance with state water quality standards.

### ***State Definition of Covered Waters***

Under California state law, “waters of the state” means “any surface water or groundwater, including saline waters, within the boundaries of the state.” Therefore, water quality laws apply to both surface water and groundwater. After the US Supreme Court decision in *Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers*, the Office of Chief Counsel of the SWRCB released a legal memorandum confirming the state’s jurisdiction over isolated wetlands. The memorandum stated that under the California Porter-Cologne Water Quality Control Act, discharges to wetlands and other waters of the state are subject to state regulation, and this includes isolated wetlands. In general, the SWRCB regulates discharges to isolated waters in much the same way as it does for waters of the United States, using Porter-Cologne rather than Clean Water Act authority.

### ***Nongovernmental Agency***

#### ***California Native Plant Society***

The CNPS is a nongovernmental agency that classifies native plant species according to current population distribution and threat level, in regard to extinction. The following description of the CNPS classification system is relevant to identifying potential impacts to biological resources due to project implementation.

The CNPS maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2013). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

The following identifies the definitions of the CNPS listings:

- List 1A:       Plants believed to be extinct
- List 1B:       Plants that are rare, threatened, or endangered in California and elsewhere
- List 2:       Plants that are rare, threatened, or endangered in California, but are more numerous elsewhere

All of the plant species on List 1 and List 2 meet the requirements of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (CESA) of the California Fish and Game Code and are eligible for state listing. Plants appearing on List 1 or List 2 are considered to meet the criteria of CEQA Section 15380, and effects on these species are considered “significant” in this Draft Environmental Impact Report (DEIR). Classifications for plants listed under “List 3: Plants about which we need more information (a review list)” and/or “List 4: Plants of limited distribution (a watch list),” as defined by the CNPS, are not currently protected under state or federal law. Therefore, no detailed descriptions were provided or impact analysis performed for qualifying species under these classifications.

**6.2.3 LOCAL**

**Placer County General Plan**

The Placer County General Plan Policy Document was adopted by the Placer County Board of Supervisors in 1994. **Table 6-2** lists the General Plan policies that relate to biological resources and the proposed project and provides an analysis of the project’s consistency with these policies. While this Draft EIR analyzes the project’s consistency with the Placer County General Plan pursuant to State CEQA Guidelines Section 15125(d), the determination of the project’s consistency with this General Plan rests with the Placer County Board of Supervisors. Any environmental impacts associated with any inconsistency with General Plan policies are addressed under the impact discussions of this EIR.

**TABLE 6-2  
PLACER COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – BIOLOGICAL  
RESOURCES**

Policies	Consistency Determination	Analysis
<b>Policy 6.B.1:</b> The County shall support the “no net loss” policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.	Consistent with Mitigation	Impacts to wetland areas will be mitigated as provided under mitigation measures identified in this section.
<b>Policy 6.B.2:</b> The County shall require new development to mitigate wetland loss in both regulated and non-regulated wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability: (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation banking program that provides the opportunity to mitigate impacts to rare, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas.	Consistent with Mitigation	Impacts to wetland areas will be mitigated as provided under mitigation measures identified in this section.
<b>Policy 6.B.4:</b> The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.	Consistent with Mitigation	Wetland areas and adjacent upland areas have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.
<b>Policy 6.B.5:</b> The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, (a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; (b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plan; and (c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less than significant impact under CEQA.	Consistent with Mitigation	Impacts to wetland areas will be mitigated as provided under mitigation measures identified in this section.

Policies	Consistency Determination	Analysis
<p><b>Policy 6.C.1:</b> 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:</p> <ul style="list-style-type: none"> <li>a. Wetland areas including vernal pools.</li> <li>b. Stream environment zones.</li> <li>c. Any habitat for rare, threatened or endangered animals or plants.</li> <li>d. Critical deer winter ranges (winter and summer), migratory routes and fawning habitat.</li> <li>e. Large areas of non-fragmented natural habitat, including Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat.</li> <li>f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.</li> <li>g. Important spawning areas for anadromous fish.</li> </ul>	<p>Consistent with Mitigation</p>	<p>Wetland areas and adjacent upland areas have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.</p>
<p><b>Policy 6.C.2:</b> The County shall require development in areas known to have particular value for wildlife to be carefully planned and, where possible, located so that the reasonable value of the habitat for wildlife is maintained.</p>	<p>Consistent with Mitigation</p>	<p>Value areas for wildlife have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.</p>
<p><b>Policy 6.C.4:</b> The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.</p>	<p>Consistent with Mitigation</p>	<p>Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.</p>
<p><b>Policy 6.C.6:</b> 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.</p>	<p>Consistent with Mitigation</p>	<p>Habitats potentially supporting special-status species have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.</p>
<p><b>Policy 6.C.7:</b> The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.</p>	<p>Consistent with Mitigation</p>	<p>Suitable habitats for indigenous wildlife species have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.</p>
<p><b>Policy 6.C.9:</b> The County shall require new private or public developments to preserve and enhance existing native riparian habitat unless public safety concerns require removal of habitat for flood control or other public purposes. In cases where new private or public development results in modification or destruction of riparian habitat for purposes of flood control, the developers shall be responsible for acquiring, restoring, and enhancing at least an equivalent amount of like habitat within or near the project area.</p>	<p>Consistent with Mitigation</p>	<p>Impacts to riparian habitat will be mitigated as provided under mitigation measures identified in this section.</p>
<p><b>Policy 6.C.10:</b> The County will use the California Wildlife Habitat Relationships (WHR) system as a standard descriptive tool and guide for environmental assessment in the absence of a more detailed site specific system.</p>	<p>Consistent</p>	<p>The California WHR was used during the preparation of this section to the extent possible.</p>

# Northstar Mountain Master Plan EIR

Policies	Consistency Determination	Analysis
<p><b>Policy 6.C.11:</b> Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites by a wildlife biologist, the evaluation shall be based upon field reconnaissance performed at the appropriate time of year to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts or indicate why mitigation is not feasible. In approving any such discretionary development permit, the decision-making body shall determine the feasibility of the identified mitigation measures. Significant ecological resource areas shall, at a minimum, include the following:</p> <ul style="list-style-type: none"> <li>a. Wetland areas including vernal pools.</li> <li>b. Stream environment zones.</li> <li>c. Any habitat for rare, threatened or endangered animals or plants.</li> <li>d. Critical deer winter ranges (winter and summer), migratory routes and fawning habitat.</li> <li>e. Large areas of non-fragmented natural habitat, including Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat.</li> <li>f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.</li> <li>g. Important spawning areas for anadromous fish.</li> </ul>	Consistent	Please refer to the Northstar HMP prepared by EDAW/AECOM (2009). Preparation of this section also satisfies this policy.
<p><b>Policy 6.D.3:</b> The County shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools.</p>	Consistent with Mitigation	Outstanding areas of natural vegetation have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for these areas within the PSA.
<p><b>Policy 6.D.6:</b> The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.</p>	Consistent with Mitigation	Areas of native vegetation have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for these areas within the PSA.
<p><b>Policy 6.D.7:</b> The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.</p>	Consistent with Mitigation	Impacts to riparian habitat will be mitigated as provided under mitigation measures identified in this section.
<p><b>Policy 6.D.14:</b> The County shall require that new development avoid, as much as possible, ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas should be protected through public acquisition of fee title or conservation easements to ensure protection.</p>	Consistent with Mitigation	Areas potentially supporting rare or endangered species have been identified as stated in this section. Mitigation measures identified in this section provide protection and/or adequate mitigation for these areas within the PSA.

## Martis Valley Community Plan

**Table 6-3** lists the Martis Valley Community Plan policies that relate to biological resources and the proposed project and provides an analysis of the project's consistency with these policies. While this Draft EIR analyzes the project's consistency with the Martis Valley Community Plan

pursuant to State CEQA Guidelines Section 15125(d), the determination of the project’s consistency with the Community Plan rests with the Placer County Board of Supervisors. Any environmental impacts associated with inconsistency with Community Plan policies are addressed under the impact discussions of this DEIR.

**TABLE 6-3  
MARTIS VALLEY COMMUNITY PLAN CONSISTENCY ANALYSIS – BIOLOGICAL  
RESOURCES**

Policies	Consistency Determination	Analysis
<p><b>Policy 9.D.1:</b> The County shall require the provision of sensitive habitat buffers which shall, at a minimum, be measured as follows: 100 feet from the centerline of perennial streams, 50 feet from centerline of intermittent streams, and 50 feet from the edge of sensitive habitats to be protected including riparian zones, wetlands, old growth woodlands, and the habitat of rare, threatened or endangered species (see discussion of sensitive habitat buffers in Part 1 of the PCGP). In some cases, buffers shall be required which are substantially larger than noted above. Conversely, based on more detailed information supplied as a part of the review for a specific project, the County may determine that such setbacks are not applicable in a particular instance or should be modified based on the new information provided. In addition, the County may allow exceptions, such as in the following cases:</p> <ul style="list-style-type: none"> <li>a. Reasonable use of the property would otherwise be denied;</li> <li>b. The location is necessary to avoid or mitigate hazards to the public.</li> <li>c. The location is necessary for the repair of roads, bridges, trails or similar infrastructure; or</li> <li>d. The location is necessary for the construction of new roads, bridges, trails, or similar infrastructure where the County determines there is no feasible alternative and the project has minimized environmental impacts through project design and infrastructure placement.</li> </ul>	<p>Consistent with Mitigation</p>	<p>Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.</p>
<p><b>Policy 9.D.3:</b> The County shall require development projects proposing to encroach (where it has been determined to be appropriate) into a creek corridor or creek setback to do one or more of the following, in descending order of desirability:</p> <ul style="list-style-type: none"> <li>a. Avoid the disturbance of riparian vegetation;</li> <li>b. Replace riparian vegetation (on-site, in-kind);</li> <li>c. Restore another section of creek (in-kind) and/or;</li> <li>d. Pay a mitigation fee for restoration elsewhere (e.g. wetland mitigation banking program).</li> </ul>	<p>Consistent with Mitigation</p>	<p>Mitigation measures identified in this section provides protection and/or adequate mitigation for riparian habitats within the PSA.</p>
<p><b>Policy 9.D.4:</b> The County shall require public and private development to address creeks and riparian corridors as follows:</p> <ul style="list-style-type: none"> <li>a. Preserve creek corridors and creek setback areas through easements or dedications. Parcel lines (in the case of a subdivision) or easements (in the case of a subdivision or other development) shall be located to optimize resource protection. If a creek is proposed to be included within an open space parcel or easement, allowed uses and maintenance responsibilities within that parcel or easement should be clearly defined and conditioned prior to map or project approval;</li> <li>b. Designate such easement or dedication areas (as described in a. above) as open space;</li> <li>c. Protect creek corridors and their habitat value by actions such as: 1) providing an adequate creek setback, 2) maintaining creek corridors in an essentially natural state, 3)</li> </ul>	<p>Consistent with Mitigation</p>	<p>Mitigation measures identified in this section provides protection and/or adequate mitigation for riparian habitats within the PSA.</p>

# Northstar Mountain Master Plan EIR

Policies	Consistency Determination	Analysis
<p>employing creek restoration techniques where restoration is needed to achieve a natural creek corridor, 4) utilizing riparian vegetation within creek corridors, and where possible, within creek setback areas, 5) prohibiting the planting of invasive, non-native plants within creek corridors or creek setbacks, and 6) avoiding tree removal within creek corridors;</p> <p>d. Provide recreation and public access near creeks consistent with other General Plan policies;</p> <p>e. Use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control practices such as: 1) turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation, and erosion, and shall be left in place until disturbed areas are stabilized with permanent vegetation that will prevent the transport of sediment off site; and/or 2) temporary vegetation is established sufficient to stabilize disturbed areas, and;</p> <p>f. Provide for long-term creek corridor maintenance.</p>		
<p><b>Policy 9.D.7:</b> The County shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.</p>	Consistent with Mitigation	Mitigation measures identified in this section provides protection and/or adequate mitigation for riparian habitats within the PSA.
<p><b>Policy 9.D.8:</b> Where the stream environment zone has previously been modified by channelization, fill, or other human activity, the County shall require project proponents to restore such areas to a more natural condition which may include landscaping, revegetation, or similar stabilization techniques.</p>	Consistent with Mitigation	Mitigation measures identified in this section provides protection and/or adequate mitigation for riparian habitats within the PSA.
<p><b>Policy 9.E.3:</b> The County shall support the conservation of a healthy forest including outstanding areas of native vegetation, including, but not limited to, open meadows, riparian areas, Great Basin Sage Scrub, Mixed Coniferous Forest, Montane Chaparral, Montane Meadow, and Red Fir Forest.</p>	Consistent with Mitigation	Mitigation measures identified in this section outline implementation of the approved Habitat Management Plan that will promote viable ecosystems within the PSA.
<p><b>Policy 9.E.5.:</b> The County shall seek to preserve areas where rare, threatened, and endangered plant species have been identified as potentially occurring and that may be adversely affected by public or private development projects.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.
<p><b>Policy 9.E.6:</b> The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat to protect biodiversity, accommodate wildlife movement, and sustain natural ecosystems.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.
<p><b>Policy 9.E.9:</b> The County shall support the preservation of native trees and the use of native seed sources and seedlings and drought-tolerant plant materials in all revegetation/landscaping projects.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.
<p><b>Policy 9.E.10:</b> The County shall require that new development avoid ecologically-fragile areas (e.g., areas of rare or endangered species of plants, riparian areas). Where feasible, these areas and heritage trees should be protected through public acquisition of fee title or conservation easements to ensure protection.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.
<p><b>Policy 9.F.1:</b> The County shall encourage the preservation and enhancement of natural open space within the riparian areas of the watercourses and drainageways found in the Martis Valley as one means of minimizing the adverse effects of land development upon the chemical and physical quality of waters therein.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.

## 6.0 Biological Resources

Policies	Consistency Determination	Analysis
<p><b>Policy 9.F.2:</b> The County shall require that natural open space buffers be maintained in non-riparian areas adjacent to drainage swales and creeks to reduce erosion and to aid in the natural filtration of runoff waters flowing into these waterways. The buffers shall meet the standards contained in the PCGP unless a larger buffer is warranted based on site-specific field work.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.
<p><b>Policy 9.F.3:</b> The County shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.</p>	Consistent with Mitigation	Mitigation measures identified in this section provides no net loss of wetlands within the PSA.
<p><b>Policy 9.F.4:</b> The County shall require new development to mitigate wetland and riparian loss in both federal jurisdictional and non-jurisdictional wetlands to achieve "no net loss" through any combination of the following, in descending order of desirability; (1) avoidance; (2) where avoidance is not possible, minimization of impacts on the resource; or (3) compensation, including use of a mitigation and conservation banking program that provides the opportunity to mitigate impacts to special status, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. Non-jurisdictional wetlands may include riparian areas that are not federal "waters of the United States" as defined by the Clean Water Act.</p>	Consistent with Mitigation	Mitigation measures identified in this section provides for no net loss of wetlands within the PSA.
<p><b>Policy 9.F.6:</b> The County shall identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and reproduction of wetland and riparian species.</p>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for sensitive habitats within the PSA.
<p><b>Policy 9.F.7:</b> The County shall require development that may affect a wetland to employ avoidance, minimization, and/or compensatory mitigation techniques. In evaluating the level of compensation to be required with respect to any given project, a) on-site mitigation shall be preferred to off-site, and in-kind mitigation shall be preferred to out-of-kind; b) functional replacement ratios may vary to the extent necessary to incorporate a margin of safety reflecting the expected degree of success associated with the mitigation plans; and c) acreage replacement ratios may vary depending on the relative functions and values of those wetlands being lost and those being supplied, including compensation for temporal losses. The County shall continue to implement and refine criteria for determining when an alteration to a wetland is considered a less-than-significant impact under CEQA.</p>	Consistent with Mitigation	Mitigation measures identified in this section provides for no net loss of wetlands within the PSA.
<p><b>Policy 9.G.1:</b> 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:</p> <ol style="list-style-type: none"> <li>a. Wetland areas</li> <li>b. Stream corridors and associated riparian areas</li> <li>c. Identified habitat of special status threatened or endangered animals</li> <li>d. Critical deer winter ranges, migratory routes and fawning habitat</li> <li>e. Large areas of non-fragmented natural habitat, including all habitat types in the Martis Valley Plan area.</li> <li>f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian</li> </ol>	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.

# Northstar Mountain Master Plan EIR

Policies	Consistency Determination	Analysis
and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway. g. Martis Lake, Martis Creek and its tributaries.		
<b>Policy 9.G.3:</b> The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by California Department of Fish and Game officials, the U.S. Fish and Wildlife Service, and the Placer County Resource Conservation District.	Consistent with Mitigation	Mitigation measures identified in this section provide adequate habitat management practices.
<b>Policy 9.G.4:</b> 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.	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.
<b>Policy 9.G.5:</b> The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.
<b>Policy 9.G.6:</b> The County shall support the preservation and or reestablishment of fisheries in the rivers and streams within Martis Valley. This shall include the protection of Martis Lake as a high quality wild-trout sport-fishery and the protection of the lakes tributary streams as wild-trout habitat.	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.
<b>Policy 9.G.7:</b> The County will use the California Wildlife Habitat Relationships (WHR) system as a standard descriptive tool and guide for environmental assessment in the absence of a more detailed site-specific analysis.	Consistent	The California WHR was used during the preparation of this section to the extent possible.
<b>Policy 9.G.9:</b> The County shall support and cooperate with efforts of other local, state, and federal agencies and private entities engaged in the preservation and protection of significant biological resources from incompatible land uses and development. Significant biological resources include endangered, threatened, or rare species and their habitats; species and their habitats that have recreational value; wetland lacustrine and riverine habitats; wildlife migration corridors; and locally-important species/communities, such as wild trout.	Consistent with Mitigation	Mitigation measures identified in this section provide protection and/or adequate mitigation for biological resources within the PSA.
<b>Policy 9.G.10:</b> Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites, prepared by a wildlife biologist or other qualified professional. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year, (if necessary) to determine the presence or absence of special status, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources, and will identify feasible measures to mitigate such impacts.	Consistent	Please refer to the Northstar HMP prepared by EDAW/AECOM (2009). Preparation of this section also satisfies this policy.

## 6.2.4 TAHOE REGIONAL PLANNING AGENCY

The Tahoe Regional Planning Agency regulates activities in the Lake Tahoe Basin. Applicable policies and regulations include the Regional Plan and the Code of Ordinances.

## 6.3 IMPACTS

### 6.3.1 STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance:

- 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 CDFW or the 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 CDFW or the 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, 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) Reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels.

### 6.3.2 METHODOLOGY

The impact assessment below evaluates both the physical impacts of construction and operational effects of the components of the proposed Northstar Mountain Master Plan (NMMP) on special-status species and associated habitat. The analysis evaluates both project-level and program-level components identified in Section 3.0, Project Description. In addition, the analysis utilizes the Northstar HMP technical analysis as well as its design and management practices (including construction-related practices) that address impacts (Chapter 4 of the HMP, **Appendix 3.3**). As further noted below in the impact analysis, the survey protocols set forth in the Northstar HMP are in the process of being refined based on surveys and field work conducted under the Northstar HMP since 2009.

### 6.3.3 IMPACTS AND MITIGATION MEASURES

#### **IMPACT 6.1:** Impacts to Special-Status Plant Species

Suitable habitat for seven listed plant species occurs within the PSA where the project- and program-level components are located. Therefore, implementation of project-related activities may result in adverse impacts to special-status plant species. The Northstar HMP includes the following practices to minimize impacts that apply to all designated resource management zones

(see Section 3.0, Project Description, and Table 4-1 of the Northstar HMP [**Appendix 3.3**] for a listing of design and management practices and their application to each resource management zone):

## Construction-Related Practices

- Prepare a stormwater pollution prevention plan (SWPPP). This plan will include feasible and effective best management practices (BMPs) for temporary erosion control, sediment control, soil stabilization, non-stormwater management, post-construction stormwater management, and BMP maintenance, inspection, and repair.
- To the extent feasible, minimize disturbance of vegetation during construction activities.
- Fence or flag project boundaries as necessary and fence sensitive resources to reduce disturbance.
- Conduct environmental sensitivity training for construction personnel prior to initiating work.

## Road and Trail System Practices

- Establish native vegetation on slopes where grading and/or smoothing has taken place along roads or where trails have been established.

## Ski Runs and Associated Facilities Practices

- Minimize vegetation removal to the extent practicable.
- After tree removal, on those areas where grading or smoothing is not required, chip or masticate slash onto the ski run to protect the soil surface.
- Revegetate areas where the soil profile has been disturbed by grading or smoothing.
- Prepare a SWPPP for projects with more than 1 acre of soil disturbance.
- Following ground-disturbing activities, attain success criteria (for soil attributes and cover of native vegetation and mulch) required by Placer County and the Lahontan RWQCB using approaches recommended by the California Alpine Resort Environmental Cooperative (CAREC) in the current draft of its *Sediment Source Control Handbook* or superseding document, or by a qualified professional.
- Manage ski runs and associated facilities to maintain, or to move toward the appropriate standards recommended by CAREC, qualified professionals, and/or required by Placer County and the Lahontan RWQCB.
- Annually inspect ski trails for signs of erosion, and implement erosion control treatments as necessary.
- During rain events and spring runoff, monitor runoff, and implement BMPs as necessary to reduce erosion and protect water quality.

### Forest Management Practices

- Compliance with California Forest Practice Rules.

### Invasive Plant Control Practices

- Clean vehicles and clothing after leaving infested areas and before entering uninfested habitats.
- Wash earthmoving equipment to remove vegetative material before bringing equipment onto Northstar properties.
- For erosion control, use certified weed-free materials or materials produced on-site (e.g., wood chips produced at the resort).
- Monitor hot spots of introduction on Northstar properties to enable early detection and rapid eradication of invasives (e.g., roadsides, parking areas, construction sites, and disturbed areas).
- Eradicate detected infestations of invasive plants on Northstar properties while infestations are still small and control is feasible.
- Periodically evaluate effectiveness of monitoring and control methods and adjust methods as needed.
- Coordinate with and support regional control efforts, in particular control efforts by the Placer County Department of Agriculture.

### Access and Use Practices

- In all zones of the resort, it is a practice to park vehicles and equipment on existing roads or previously disturbed areas (to the extent practicable), and to enforce the use restrictions applicable to that zone. Northstar also has additional access and use practices that are specific to particular resource management zones.
- The public will be informed of access and use restrictions (e.g., seasonal recreation restrictions and pet restrictions) by notifications and signage. Access and use restrictions will be posted at employee housing, NCS D, and NPOA, and will be provided in units rented by Northstar. Notification also will be provided to other rental agencies at the resort. Northstar also will request that NCS D and NPOA place notice of pet restrictions in publications for homeowners.
- Signs regarding access and use restrictions will be posted and maintained along roads and trails entering zones with restrictions. Signage will be inspected and maintained by Northstar mountain crews on a seasonal basis.
- Gates on Northstar property are operated and maintained to ensure that access is limited appropriately. Generally, all gates on the Northstar property are locked at all times. Keys are administered by Northstar security which tracks all issued keys by number. The locks are changed periodically as a security measure. Northstar crews inspect gates on a bimonthly basis during routine operations. Gates are fixed immediately upon discovery of required maintenance. Rock barriers are in place adjacent to gates, and additional rock barriers are placed if there is evidence of access around the gate.

- Northstar operations staff and employees (including the mountain bike patrol, mountain crew, and ski patrol) will enforce access and use restrictions as needed and practicable during routine operations. Individuals found violating these restrictions will be asked to leave the property immediately. Northstar security is available at all times to immediately address property access and use violations.

**MITIGATION MEASURE 6-1a**      Conduct Special-Status Species Surveys

The applicant shall retain a qualified biologist to perform focused preconstruction surveys to determine the presence/absence of special-status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area of each project component. These surveys shall be conducted in accordance with CDFW *Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities* (Nelson 1994). These guidelines require that rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity.

**MITIGATION MEASURE 6-1b**      Implement Avoidance Measures to Protect Special-Status Species

If any state- or federally listed, CNPS List 1, or CNPS List 2 plant species is found in or adjacent to (within 25 feet) the proposed impact area of each project component during the surveys, 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, and construction monitoring by a qualified biologist. Avoidance areas shall be identified on improvement plans. If these plants cannot be avoided, the following measures shall be applied, and the following mitigation measures shall be implemented prior to approval of improvement plans, issuance of grading permits, and/or any clearing:

- In some cases involving state-listed plants, it may be necessary to obtain an incidental take permit under Section 2081 of the Fish and Game Code (2081 permit). The applicant shall consult with the CDFW to determine whether a 2081 permit is required, and obtain all required authorizations prior to initiation of ground-breaking activities.
- The applicant shall submit a mitigation plan concurrently to the CDFW and the USFWS (if appropriate) for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for impacts to special-status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (if feasible), or through the purchase of credits from an approved mitigation bank, if available. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS (if appropriate) through the mitigation plan approval process.

Any special-status plant species that are identified adjacent to the PSA, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.

**SIGNIFICANCE AFTER MITIGATION**

Implementation of the proposed project may result in adverse impacts to special-status plant species should they be present; this is considered a **potentially significant** impact. Implementation of the Northstar HMP practices noted above and mitigation measures 6-1a and 6-1b will reduce this impact to a **less than significant** level.

**IMPACT 6.2:** Impacts to Northern Goshawk and California Spotted OwlNorthern Goshawk

Suitable breeding and foraging habitat occurs throughout the project- and program-level components for the northern goshawk, which have been documented nesting on the north side of Sawtooth Ridge in Resource Management Zone E2. The table below provides a summary of each project- and program-level component, along with an analysis of potential impacts to northern goshawk habitat (“X” represents potential for impact).

	Northern Goshawk Habitat Impacts		
	Low Value <sup>1</sup>	Moderate Value <sup>2</sup>	High Value <sup>3</sup>
<b>Project-Level Components</b>			
Additional Ski Trails, Ski Trail Widening, Snowmaking Lines, and Existing Lift Upgrades	X	X	X
C Lift & Trails	X	X	–
J Lift & Trails	X	X	–
V Lift & Trails	X	X	–
W Lift & Trails	X	X	X
Z Lift & Tree Skiing	X	X	–
Five Skier Bridges	–	–	–
Summit Deck & Grille Improvements	–	–	–
Backside Warming Hut	–	X	–
Cross-Country Access Road	–	X	–
<b>Program-Level Components</b>			
Q Lift Ski Pod	X	X	X
Castle Peak Gondola	–	X	–
Skier Access from Lookout Mountain to W Lift Bottom Terminal	–	X	–
Three Skier Service Sites	–	–	–
Backside Campsite Area	–	X	–

<sup>1</sup> “Low Value” – low breeding value, low to high foraging value (Northstar HMP Exhibit 3-7)

<sup>2</sup> “Moderate Value” – moderate breeding value, moderate to high foraging value (Northstar HMP Exhibit 3-7)

<sup>3</sup> “High Value” – high breeding and foraging value (Northstar HMP Exhibit 3-7)

California Spotted Owl

A majority of the PSA provides low to moderate value breeding habitat and low to high value foraging habitat. However, California spotted owls have been detected in Resource Management Zones D2 and E2 (see Exhibit 3-8 of the Northstar HMP, **Appendix 3.3**). The table below provides a summary of each project- and program-level component, along with an analysis of potential impacts to California spotted owl habitat (“X” represents potential for impact).

	California Spotted Owl		
	Low Value <sup>1</sup>	Moderate Value <sup>2</sup>	High Value <sup>3</sup>
<b>Project-Level Components</b>			
Additional Ski Trails, Ski Trail Widening, Snowmaking Lines, and Existing Lift Upgrades	X	X	X
C Lift & Trails	X	-	-
J Lift & Trails	X	-	-
V Lift & Trails	X	-	-
W Lift & Trails	X	-	X
Z Lift & Tree Skiing	X	-	-
Five Skier Bridges	-	-	-
Summit Deck & Grille Improvements	-	-	-
Backside Warming Hut	X	-	-
Cross-Country Access Road	X	-	-
<b>Program-Level Components</b>			
Q Lift Ski Pod	X	-	X
Castle Peak Gondola	X	-	-
Skier Access from Lookout Mountain to W Lift Bottom Terminal	X	-	-
Three Skier Service Sites	-	-	-
Backside Campsite Area	X	-	-

<sup>1</sup> "Low Value" – low breeding value, low to high foraging value (Northstar HMP Exhibit 3-8)

<sup>2</sup> "Moderate Value" – moderate breeding value, moderate to high foraging value (Northstar HMP Exhibit 3-8)

<sup>3</sup> "High Value" – high breeding and foraging value (Northstar HMP Exhibit 3-8)

In addition to the Northstar HMP practices identified under Impact 6.1, the HMP includes the following practices specific to northern goshawk and California spotted owl as identified in HMP Tables 4-3, 4-4, and 4-5 (**Appendix 3.3**):

Northern Goshawk

- Pre-project surveys will be conducted in suitable nesting habitat within 0.25 mile of vegetation removal, construction, and development activities. Surveys for northern goshawks will follow the *Northern Goshawk Inventory and Monitoring Technical Guide* (Woodbridge and Hargis 2006), or another appropriate method determined by the appropriate regulatory agency. Suitable habitat is preliminarily defined here as Class 2 (moderate breeding value) and 3 (high breeding value) areas shown in HMP Exhibit 3-7. However, these areas were mapped primarily from GIS data, and they may overestimate the amount of suitable breeding habitat (particularly in the “moderate” category). Final determination of suitability, and whether a pre-project protocol survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified avian biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the protocol survey; if suitable habitat is not present, no further (protocol) survey would be required.

Survey Timing: June 1–August 15 (broadcast acoustical surveys or intensive surveys/stand searches); or approximately March 1–April 15 (dawn acoustical surveys)

- To avoid disturbances to or loss of active nest sites, between March 15 and August 15, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. This buffer may be reduced through consultation with the county and/or CDFW. This time frame is based on the California Forest Practice Rules guidelines and definition of “Critical Period” for northern goshawk.
- Access and Seasonal Use Restrictions for Resource Management Zones D and E: Where pre-project surveys (see HMP Table 4-3) or other monitoring (see HMP Chapter 6) have identified nesting by northern goshawk, the following will be restricted:
  - Motorized vehicle use not related to the necessary maintenance of facilities or resource protection, within 0.25 mile of the nest.
  - Bicycling and snowmobiling, within 0.25 mile of the nest.

Access and Seasonal Use Restriction Timing: March 15–August 15

### California Spotted Owl

- Pre-project surveys will be conducted in suitable nesting habitat within 0.25 mile of vegetation removal, construction, and development activities. Surveys for California spotted owl will follow the *Protocol for Surveying for Spotted Owl in Proposed Management Activity Areas and Habitat Conservation Areas* (USFS 1993), or another appropriate method determined by the appropriate regulatory agency. Suitable habitat is preliminarily defined here as Class 2 (moderate breeding value) and 3 (high breeding value), and portions of Class 1 (low to moderate breeding value), areas shown in HMP Exhibit 3-8. Final determination of suitability, and whether a pre-project protocol survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified avian biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the protocol survey; if suitable habitat is not present, no further (protocol) survey would be required.

Survey Timing: March 1–August 31

- To avoid disturbances to or loss of active nest sites, between March 1 and August 31, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. This buffer may be reduced through consultation with the county and/or CDFW.
- Access and Seasonal Use Restrictions for Resource Management Zones D and E: Where pre-project surveys (see HMP Table 4-3) or other monitoring (see HMP Chapter 6) have identified nesting by California spotted owl, the following will be restricted:
  - Motorized vehicle use not related to the necessary maintenance of facilities or resource protection, within 0.25 mile of the nest.
  - Bicycling and snowmobiling, within 0.25 mile of the nest.

Access and Seasonal Use Restriction Timing: March 1–August 31 (as determined by a qualified biologist)

The Northstar HMP also includes resource management targets and practices for Resource Management Zone E to improve the quality and acreage of forest areas that would include increasing the acreage of late-seral stands (which provide high quality value breeding and foraging habitat for both the northern goshawk and California spotted owl). Specific late-seral habitat mitigation is included in mitigation measure 6-9.

**MITIGATION MEASURE 6-2a**      Implement Avoidance Measures for Northern Goshawk and California Spotted Owl

The project applicant shall include the following Northstar HMP practices and protection measures as standards in all NMMP project component improvement plans, building permits, use permits, and grading permits prior to their approval for the protection of northern goshawk and California spotted owl. The Placer County Planning Department shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid discovered nesting birds.

Northern Goshawk

- Pre-project surveys will be conducted in suitable nesting habitat within 0.25 mile of vegetation removal, construction and development activities, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. Surveys for northern goshawks will follow the *Northern Goshawk Inventory and Monitoring Technical Guide* (Woodbridge and Hargis 2006), or another appropriate method determined by the appropriate regulatory agency. Suitable habitat is preliminarily defined here as Class 2 (moderate breeding value) and 3 (high breeding value) areas shown in HMP Exhibit 3-7. However, these areas were mapped primarily from GIS data, and they may overestimate the amount of suitable breeding habitat (particularly in the “moderate” category). Final determination of suitability, and whether a pre-project protocol survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified avian biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the protocol survey; if suitable habitat is not present, no further (protocol) survey would be required.

Survey Timing: June 1–August 15 (broadcast acoustical surveys or intensive surveys/stand searches); or approximately March 1–April 15 (dawn acoustical surveys)

- To avoid disturbances to or loss of active nest sites, between March 15 and August 15, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. This buffer may be reduced through consultation with the County and/or the CDFW. This time frame is based on the California Forest Practice Rules guidelines and definition of “Critical Period” for northern goshawk.
- Access and Seasonal Use Restrictions for Resource Management Zones D and E: Where pre-project surveys (see HMP Table 4-3, Appendix 3.3) or other monitoring (see HMP Chapter 6, **Appendix 3.3**) have identified nesting by northern goshawk, the following will be restricted:

- Motorized vehicle use not related to the necessary maintenance of facilities or resource protection, within 0.25 mile of the nest.
- Bicycling and snowmobiling, within 0.25 mile of the nest.

Access and Seasonal Use Restriction Timing: March 15–August 15

### California Spotted Owl

- Pre-project surveys will be conducted in suitable nesting habitat within 0.25 mile of vegetation removal, construction and development activities, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. Surveys for California spotted owl will follow the *Protocol for Surveying for Spotted Owl in Proposed Management Activity Areas and Habitat Conservation Areas* (USFS 1993), or another appropriate method determined by the appropriate regulatory agency. Suitable habitat is preliminarily defined here as Class 2 (moderate breeding value) and 3 (high breeding value), and portions of Class 1 (low to moderate breeding value), areas shown in HMP Exhibit 3-8 (**Appendix 3.3**). Final determination of suitability, and whether a pre-project protocol survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified avian biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the protocol survey; if suitable habitat is not present, no further (protocol) survey would be required.

Survey Timing: March 1–August 31

- To avoid disturbances to or loss of active nest sites, between March 1 and August 31, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. This buffer may be reduced through consultation with the County and/or the CDFW.
- Access and Seasonal Use Restrictions for Resource Management Zones D and E: Where pre-project surveys (see HMP Table 4-3) or other monitoring (see HMP Chapter 6) have identified nesting by California spotted owl, the following will be restricted:
  - Motorized vehicle use not related to the necessary maintenance of facilities or resource protection, within 0.25 mile of the nest.
  - Bicycling and snowmobiling, within 0.25 mile of the nest.

Access and Seasonal Use Restriction Timing: March 1–August 31 (as determined by a qualified biologist)

### **MITIGATION MEASURE 6-2b** Nest Site Protection

The project applicant shall not remove any trees between September 1 and February 28 that contained active nest sites for California spotted owl or northern goshawk during the breeding season. Once a qualified biologist has deemed a nest site inactive for two consecutive years, the restriction to protect the nest tree shall be lifted.

**SIGNIFICANCE AFTER MITIGATION**

Implementation of the Northstar HMP practices noted above, mitigation measures 6-2a and 6-2b, and habitat mitigation measure 6-9 would ensure potential impacts to northern goshawks and California spotted owls would be reduced to a **less than significant** level by avoiding nesting birds as well as providing for preservation and improvement of existing habitat conditions within Northstar at a 1:1 ratio from project impacts.

**IMPACT 6.3:** Impacts to Yellow Warbler and Willow Flycatcher

Suitable breeding habitat for the willow flycatcher was identified in Resource Management Zones A, B, C1, D2, and D3 (see Exhibit 3-10 of the Northstar HMP, **Appendix 3.3**). The table below provides a summary of each project- and program-level component, along with an analysis of potential impacts to willow flycatcher breeding habitat (“X” represents potential for impact).

	<b>Willow Flycatcher Potential Moderate Breeding Habitat</b>
<b>Project-Level Components</b>	
Additional Ski Trails, Ski Trail Widening, Snowmaking Lines, and Existing Lift Upgrades	X
C Lift & Trails	X
J Lift & Trails	–
V Lift & Trails	X
W Lift & Trails	–
Z Lift & Tree Skiing	–
Five Skier Bridges	Only bridges 2, 3 & 5
Summit Deck & Grille Improvements	–
Backside Warming Hut	–
Cross-Country Access Road	–
<b>Program-Level Components</b>	
Q Lift Ski Pod	–
Castle Peak Gondola	X
Skier Access from Lookout Mountain to W Lift Bottom Terminal	–
Three Skier Service Sites	–
Backside Campsite Area	–

It is presumed based on similar habitat requirements that suitable breeding habitats identified for willow flycatcher will also provide suitable breeding habitat for yellow warbler. Both the yellow warbler and the willow flycatcher have been documented within 5 miles of the PSA. The presence of suitable habitat and documented occurrences in proximity to the PSA lead to the determination that implementation of project-related activities may result in adverse impacts to these species should they be present in areas proposed for disturbance.

In addition to the Northstar HMP practices identified under Impact 6.1, the HMP includes the following practices specific to the willow flycatcher as identified in HMP Tables 4-3 and 4-4 (**Appendix 3.3**). These practices have been refined since the initial completion of the Northstar HMP based on field work and monitoring since 2009.

- Pre-project surveys will be conducted in suitable nesting habitat within 500 feet of vegetation removal, construction, and development activities. The surveys will follow *A Willow Flycatcher Survey Protocol for California, June 6, 2000* (Bombay et al. 2003), or another appropriate method determined by the appropriate regulatory agency. The protocol requires a minimum of two survey visits to determine presence or absence of willow flycatcher. One survey must be performed between June 15 and 25; the second survey may be performed either June 1–14 or June 26–July 15. Determination of habitat suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.

Survey Timing: Two surveys – June 15–25 and either June 1–14 or June 26–July 15

- If an area is determined to be occupied by willow flycatcher during pre-project surveys (see HMP Table 4-3) or otherwise, notify the county and CDFW. Between June 1 and July 31, delay project activities within 500 feet of (or at a distance directed by the appropriate regulatory agency) of the site until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction.

The Northstar HMP also includes resource management targets and practices for Resource Management Zones to improve the quality of the stream and riparian corridors. Specific riparian habitat mitigation is included in mitigation measure 6-9.

### **MITIGATION MEASURE 6-3a**      Implement Avoidance Measures for Yellow Warbler

The project applicant shall retain a qualified biologist to determine if suitable nesting habitat for these species occurs within 500 feet of the proposed impact area. The survey will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. If suitable habitat exists, focused surveys must be performed by a qualified biologist for the purposes of determining presence/absence of yellow warbler.

If active nest sites are determined to exist within 500 feet of project activities, the project applicant shall delay all construction activities within 500 feet of the nest site (or distance determined appropriate by the biologist in consultation with the California Department of Fish and Wildlife) until the birds leave the nest, or a time deemed acceptable by the biologist. The Placer County Planning Department shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid discovered nesting birds.

### **MITIGATION MEASURE 6-3b**      Implement Avoidance Measures for Willow Flycatcher

The project applicant shall implement the following Northstar HMP practices and protection measures as standards in all NMMP project component improvement plans, building permits, use permits, and grading permits prior to their approval for the protection of willow flycatcher. The Placer County Planning Department shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid discovered nesting birds.

- Pre-project surveys will be conducted in suitable nesting habitat within 500 feet of vegetation removal, construction and development activities, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. The surveys will follow *A Willow Flycatcher Survey Protocol for California, June 6, 2000* (Bombay et al. 2003), or another appropriate method determined by the appropriate regulatory agency. The protocol requires a minimum of two survey visits to determine presence or absence of willow flycatcher. One survey must be

performed between June 15 and 25; the second survey may be performed either June 1–14 or June 26–July 15. Determination of habitat suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.

Survey Timing: Two surveys – June 15–25 and either June 1–14 or June 26–July 15

- If an area is determined to be occupied by willow flycatcher during pre-project surveys (see HMP Table 4-3) or otherwise, notify the County and the CDFW. Between June 1 and July 31, delay project activities within 500 feet of (or at a distance directed by the appropriate regulatory agency) of the site until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction.

### **SIGNIFICANCE AFTER MITIGATION**

Implementation of the Northstar HMP practices noted above, mitigation measures 6-3a and 6-3b, and habitat mitigation measure 6-9 would ensure potential impacts to yellow warblers and willow flycatchers would be reduced to a **less than significant** level by avoiding nesting birds as well as providing for the preservation and improvement of existing stream and riparian corridor habitat conditions within Northstar that are utilized by these species at 1:1 ratio from project impacts.

#### **IMPACT 6.4: Impacts to Special-Status Forest Carnivore Species**

Suitable denning habitat for the American marten, Pacific fisher, Sierra red fox, and California wolverine occurs within Northstar. In addition, one occurrence of the Sierra red fox and one occurrence of the Sierra marten have been documented within 5 miles of Northstar (CDFW 2013a). Suitable habitat is provided throughout the proposed NMMP components. Due to the presence of suitable habitat for these species, implementation of project-related activities may result in adverse impacts to these species should they be present in areas proposed for disturbance.

In addition to the Northstar HMP practices identified under Impact 6.1, the HMP includes the following practices specific to the American marten as identified in HMP Tables 4-3, 4-4, and 4-5 (**Appendix 3.3**). The survey practices and protection measures outlined in the Northstar HMP for the American marten, and summarized below, will also be applied to the Sierra red fox, Pacific fish, and California wolverine. These practices have been refined since the initial completion of the Northstar HMP based on field work, consultation with resource agencies (USFWS and CDFW), and monitoring since 2009.

- Pre-project surveys for American marten den sites will be conducted in suitable denning habitat within 0.25 mile of vegetation removal, construction, and development activities. If a potential den is located, an appropriate method will be used to determine whether the site is occupied by marten. Suitable denning habitat is preliminarily defined here as Class 2 (moderate breeding value) and 3 (high breeding value) areas shown in HMP Exhibit 3-9. However, these areas were mapped primarily from GIS data, and they may overestimate the amount of suitable denning habitat (particularly in the “moderate” category). Final determination of suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.

Survey Timing: April 1–July 31

- If an active marten den site is located during the pre-project surveys (see HMP Table 4-3, **Appendix 3.3**) or otherwise, notify the county and CDFW. Delay project activities within 500 feet of the den during the sensitive denning season when activities could disturb rearing of young (April 1 through July 31). (Note: Although martens are active and can be surveyed year-round, this is considered the sensitive reproductive period that could overlap with timing of project activities. Generally, young are born in March–April, emerge from the den at about 50 days, and leave their mother in late summer [see Buskirk and Ruggiero 1994]).
- Access and Seasonal Use Restrictions for Resource Management Zones D and E: Where pre-project surveys (see Table 4-3) or other monitoring have identified denning or concentrated use by American marten, the following will be restricted:
  - Motorized vehicle use not related to the necessary maintenance of facilities or resource protection, within 0.25 mile of the den or activity center.

Access and Seasonal Use Restriction Timing: April 1–July 31

The Northstar HMP also includes resource management targets and practices for Resource Management Zone E to improve the quality and acreage of forest areas that would include increasing the acreage of late-seral stands, which provides high value habitat for the forest carnivore species identified. Specific late-seral habitat mitigation is included in mitigation measure 6-9.

**MITIGATION MEASURE 6-4** Mitigate for Impacts to Special-Status Forest Carnivore Species (American Marten, Pacific Fisher, Sierra Red Fox, and California Wolverine)

The project applicant shall implement the Northstar HMP practices identified below for the American marten and apply these same survey practices and protection measures to the Sierra red fox, Pacific fisher, and California wolverine where suitable habitat exists, as determined by a qualified biologist. The applicant shall include the Northstar HMP practices and protection measures for these species as standards in all improvement plans, building permits, use permits, and grading permits prior to their approval for all NMMP project components. The Placer County Planning Department shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid discovered dens.

- Pre-project surveys for American marten den sites will be conducted in suitable denning habitat within 0.25 mile of vegetation removal, construction, and development activities, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. If a potential den is located, an appropriate method will be used to determine whether the site is occupied by marten. Suitable denning habitat is preliminarily defined here as Class 2 (moderate breeding value) and 3 (high breeding value) areas shown in HMP Exhibit 3-9 (**Appendix 3.3**). However, these areas were mapped primarily from GIS data, and they may overestimate the amount of suitable denning habitat (particularly in the “moderate” category). Final determination of suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.

Survey Timing: April 1–July 31

- If an active marten den site is located during the pre-project surveys (see HMP Table 4-3, **Appendix 3.3**) or otherwise, notify the County and the CDFW. Delay project activities within 500 feet of the den during the sensitive denning season when activities could disturb rearing of young (April 1 through July 31). (Note: Although martens are active and can be surveyed year-round, this is considered the sensitive reproductive period that could overlap with timing of project activities. Generally, young are born in March–April, emerge from the den at about 50 days, and leave their mother in late summer [see Buskirk and Ruggiero 1994]).
- Access and Seasonal Use Restrictions for Resource Management Zones D and E: Where pre-project surveys (see HMP Table 4-3, **Appendix 3.3**) or other monitoring have identified denning or concentrated use by American marten, the following will be restricted:
  - Motorized vehicle use not related to the necessary maintenance of facilities or resource protection, within 0.25 mile of the den or activity center.

Access and Seasonal Use Restriction Timing: April 1–July 31

## **SIGNIFICANCE AFTER MITIGATION**

Implementation of the Northstar HMP practices noted above and mitigation measure 6-4 and 6-9 would ensure potential impacts to American marten, Sierra red fox, Pacific fisher, and California wolverine would be reduced to a **less than significant** level by avoiding dens as well as providing for preservation and improvement of existing late-seral forest habitat conditions within Northstar impacted by the project at a 1:1 ratio.

### **IMPACT 6.5:** Impacts to Special-Status Forest Herbivore Species

Suitable habitat for the Sierra Nevada mountain beaver, Sierra Nevada snowshoe hare, and western white-tailed jackrabbit occurs throughout the PSA. In addition, known occurrences for each of these species have been documented within 5 miles of the PSA. Due to the presence of suitable habitat for these species, implementation of project-related activities may result in adverse impacts to these species should they be present in areas proposed for disturbance.

All of the proposed NMMP project components are will impact forest habitats, and the following components are located within or adjacent to stream and riparian habitat areas:

#### Project-Level Components

- Additional ski trails, ski trail widening, snowmaking lines, and existing lift upgrades
- V lift and associated trails
- W lift and associated trails
- All five skier bridges

#### Program-Level Components

- Q lift ski pod
- Castle Peak Gondola

Northstar HMP practices identified under Impact 6.1 would assist in addressing this impact. In addition, the Northstar HMP also includes resource management targets and practices for Resource Management Zone E to improve the quality and acreage of forest areas. Specific riparian and forest habitat mitigation is included in mitigation measure 6-9.

**MITIGATION MEASURE 6-5a** Forest Herbivore Detection Surveys

The project applicant shall retain a qualified biologist to determine if suitable breeding habitat for Sierra Nevada mountain beaver, Sierra Nevada snowshoe hare, and/or western white-tailed jackrabbit occurs within 250 feet of the proposed impact area for all NMMP project components. The survey will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. If suitable habitat exists, focused surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active dens within the proposed impact area and a 250-foot buffer (if feasible). The Placer County Planning Department shall be notified of the results of the preconstruction surveys.

**MITIGATION MEASURE 6-5b** Implement Avoidance Measures to Protect Special-Status Forest Herbivore Species

If active breeding sites are identified within 250 feet of project activities, the project applicant shall implement limited operating periods (LOP) for all dens prior to commencement of any project construction activities to avoid construction or access-related disturbances to breeding activities and/or habitat for Sierra Nevada mountain beaver, Sierra Nevada snowshoe hare, and/or western white-tailed jackrabbit. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, and construction) will not occur, and will be imposed between April 1 and July 31 within 250 feet of any active den sites. Activities permitted within and the size (i.e., 250 feet) of LOPs may be adjusted through consultation with the CDFW and/or the County. The Placer County Planning Department shall be notified of the establishment of buffers and LOPs to avoid impacts.

**SIGNIFICANCE AFTER MITIGATION**

Implementation of mitigation measures 6-5a and 6-5b would reduce impacts due to disturbance to a **less than significant** level by avoiding known occurrences of the species. Mitigation measure 6-9 would require preservation and improvement of habitat that would be impacted by the project at a 1:1 ratio.

**IMPACT 6.6:** Impacts to Mule Deer Fawning

Exhibit 3-11 of the Northstar HMP identifies potential mule deer fawning habitat within the PSA. The majority of the potential moderate and high value habitat is located in the western portion of Northstar (the western portions of Mt. Pluto and Lookout Mountain and the eastern slope of Sawtooth Ridge). There are also potential high value fawning habitat south of the proposed C lift and east of the Village. The table below provides a summary of each project- and program-level component, along with an analysis of potential impacts to mule deer fawning habitat (“X” represents potential for impact) based on Exhibit 3-11 of the Northstar HMP (**Appendix 3.3**).

	Potential Mule Deer Fawning Habitat	
	Moderate Value	High Value

<b>Project-Level Components</b>		
Additional Ski Trails, Ski Trail Widening, Snowmaking Lines, and Existing Lift Upgrades	X	X
C Lift & Trails	-	X
J Lift & Trails	-	-
V Lift & Trails	X	X
W Lift & Trails	X	X
Z Lift & Tree Skiing	-	X
Five Skier Bridges	-	-
Summit Deck & Grille Improvements	-	-
Backside Warming Hut	X	X
Cross-Country Access Road	-	-
<b>Program-Level Components</b>		
Q Lift Ski Pod	X	X
Castle Peak Gondola	-	X
Skier Access from Lookout Mountain to W Lift Bottom Terminal	X	X
Three Skier Service Sites	-	-
Backside Campsite Area	X	-

In addition to the Northstar HMP practices identified under Impact 6.1, the HMP includes the following practices specific to mule deer fawning as identified in HMP Tables 4-3, 4-4, and 4-5 (**Appendix 3.3**). These practices have been refined since the initial completion of the Northstar HMP based on field work and monitoring since 2009.

- Pre-project surveys will be conducted in suitable fawning habitat within 500 feet of vegetation removal, construction, and development activities. Suitable habitat is preliminarily defined here as moderate and high potential areas shown in HMP Exhibit 3-11 (**Appendix 3.3**); however, these were mapped primarily from GIS data. Final determination of suitability, and whether a pre-project focused survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified wildlife biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the focused survey; if suitable habitat is not present, no further (focused) survey would be required. (Note: Riparian vegetation along Schaffer Creek is mapped on HMP Exhibit 3-11 as high potential; however, it is not easily seen on HMP Exhibit 3-11 because of overlap with stream and trail features.)

Survey Timing: Approximately April 15–July 31 (These dates are only guidelines. Appropriate survey dates should be determined by a qualified biologist during the year of the survey, based on snowpack conditions and deer activity.)

- If mule deer fawning is confirmed during pre-project surveys (see HMP Table 4-3, **Appendix 3.3**) or otherwise, notify the county and CDFW. During the fawning and fawn-rearing period (typically sometime between mid-April and late July, depending on snowpack/weather), delay project activities at a distance determined by a qualified biologist in consultation with the appropriate regulatory agency. Project activities include vegetation removal, earth moving, and construction. Appropriate dates within this period

should be determined by a qualified biologist during the year of project activity, based on snowpack conditions and deer reproductive activity.

- Access and Seasonal Use Restrictions for Resource Management Zones C, D and E: To allow deer access to fawning grounds and avoid disturbances to fawning activities, the following will be restricted:
  - Recreation activities (including snowmobiling and bicycling), motorized vehicle use not related to the necessary maintenance of facilities or resource protection, and other unnecessary operational uses within a seasonal closure area during the deer fawning season. This closure area is introduced and shown (as HMP Exhibit 4-1, **Appendix 3.3**) and under Management Practices for Access and Use for Zones B, D, and E.
  - Pets (such as walking dogs) within moderate-potential, high-potential, or occupied fawning habitat.

Access and Seasonal Use Restriction Timing: Approximately April 15–July 31 (These dates are only guidelines. Appropriate survey dates should be determined by a qualified biologist during the year of the survey, based on snowpack conditions and deer activity.)

- Protect mule deer access to fawning grounds and minimize loss of fawning habitat by implementing the following measures (Resource Management Zones B, C, D, and E):
  - Implement recreation and development designs that emphasize protection of occupied and high-potential mule deer fawning habitats. To the extent practicable, design trails and structures to avoid locations mapped as high potential or occupied mule deer fawning habitat, and minimize impacts on locations mapped as moderate potential fawning habitat.
  - Within physical design constraints, locate ski lifts, towers, and terminals to avoid or minimize removal of high potential or occupied fawning habitat, particularly riparian and shrub vegetation.
  - Where moderate potential, high potential, or occupied fawning habitat cannot be avoided, design development and trails to retain habitat elements important for mule deer fawning (shrub cover, tree cover, riparian vegetation) to the extent practicable and appropriate.

### **MITIGATION MEASURE 6-6**                      Mitigate for Impacts to Mule Deer Fawning

The project applicant shall include the following Northstar HMP practices and protection measures as standards in all improvement plans, building permits, use permits, and grading permits for the following NMMP project components prior to their approval for the protection of mule deer fawning. These measures shall be implemented in suitable habitat, as determined by a qualified biologist. The Placer County Planning Department shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid mule deer fawning.

- Pre-project surveys will be conducted in suitable fawning habitat within 500 feet of vegetation removal, construction, and development activities, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. Suitable habitat is preliminarily defined here as moderate and high potential areas shown in HMP Exhibit 3-11(**Appendix 3.3**); however, these were mapped

primarily from GIS data. Final determination of suitability, and whether a pre-project focused survey is required, should be based on a reconnaissance field assessment of habitat conditions by a qualified wildlife biologist before initiating projects in these areas. For efficiency, this assessment could be conducted as part of the pre-project survey, as follows: if suitable habitat is present, continue by implementing the focused survey; if suitable habitat is not present, no further (focused) survey would be required. (Note: Riparian vegetation along Schaffer Creek is mapped on HMP Exhibit 3-11 as high potential; however, it is not easily seen on HMP Exhibit 3-11 because of overlap with stream and trail features.)

Survey Timing: Approximately April 15–July 31 (These dates are only guidelines. Appropriate survey dates should be determined by a qualified biologist during the year of the survey, based on snowpack conditions and deer activity.)

- If mule deer fawning is confirmed during pre-project surveys (see HMP Table 4-3, **Appendix 3.3**) or otherwise, notify the County and the CDFW. During the fawning and fawn-rearing period (typically sometime between mid-April and late July, depending on snowpack/weather), delay project activities at a distance determined by a qualified biologist in consultation with the appropriate regulatory agency. Project activities include vegetation removal, earth moving, and construction. Appropriate dates within this period should be determined by a qualified biologist during the year of project activity, based on snowpack conditions and deer reproductive activity.
- Access and Seasonal Use Restrictions for Resource Management Zones C, D, and E: To allow deer access to fawning grounds and avoid disturbances to fawning activities, the following will be restricted:
  - Recreation activities (including snowmobiling and bicycling), motorized vehicle use not related to the necessary maintenance of facilities or resource protection, and other unnecessary operational uses within a seasonal closure area during the deer fawning season. This closure area is introduced and shown (as HMP Exhibit 4-1, **Appendix 3.3**) and under Management Practices for Access and Use for Zones B, D, and E.
  - Pets (such as walking dogs) within moderate-potential, high-potential, or occupied fawning habitat.

Access and Seasonal Use Restriction Timing: Approximately April 15–July 31 (These dates are only guidelines. Appropriate survey dates should be determined by a qualified biologist during the year of the survey, based on snowpack conditions and deer activity.)

- Protect mule deer access to fawning grounds and minimize loss of fawning habitat by implementing the following measures (Resource Management Zones B, C, D, and E):
  - Implement recreation and development designs that emphasize protection of occupied and high-potential mule deer fawning habitats. To the extent practicable, design trails and structures to avoid locations mapped as high potential or occupied mule deer fawning habitat, and minimize impacts on locations mapped as moderate potential fawning habitat.
  - Within physical design constraints, locate ski lifts, towers, and terminals to avoid or minimize removal of high potential or occupied fawning habitat, particularly riparian and shrub vegetation.

- Where moderate-potential, high-potential, or occupied fawning habitat cannot be avoided, design development and trails to retain habitat elements important for mule deer fawning (shrub cover, tree cover, riparian vegetation) to the extent practicable and appropriate.

### SIGNIFICANCE AFTER MITIGATION

Implementation of the Northstar HMP practices noted above and mitigation measure 6-6 would ensure potential impacts to mule deer fawning would be reduced to a **less than significant** level by avoiding the species as well as providing use restrictions during fawning season. Mitigation measure 6-9 would require preservation and improvement of habitat that would be impacted by the project at a 1:1 ratio.

#### **IMPACT 6.7:** Impacts to Migratory Birds and Raptors

The project area may provide nesting and/or foraging habitat for bald eagles, golden eagles, long-eared owls, and olive-sided flycatchers, as well as for other migratory birds and raptors not identified in **Table 6-1**. All native breeding birds (except game birds during the hunting season), regardless of their listing status, are protected under the MBTA. Vegetation clearing during the nesting season could result in direct impacts to nesting birds should they be present. Furthermore, noise and other human activity may result in nest abandonment if nesting birds are present within 200 feet (500 feet for raptors) of a work site. Due to the presence of suitable habitat for these species, implementation of project-related activities may result in adverse impacts should they be present in areas proposed for disturbance.

In addition to the Northstar HMP practices identified under Impact 6.1, the HMP includes the following practices specific to raptors as identified in HMP Tables 4-3 and 4-4 (**Appendix 3.3**). The survey practices and protection measures outlined in the Northstar HMP for raptors, and summarized below, will also be applied to bald eagle, golden eagle, olive-sided flycatcher, long-eared owl, as well as all other migratory birds with the potential to nest within the PSA. These practices have been refined since the initial completion of the Northstar HMP based on field work and monitoring since 2009.

- Pre-project surveys for other nesting raptors will be conducted in suitable nesting habitat within 500 feet of vegetation removal, construction, and development activities. Visual surveys of trees larger than approximately 11 inches in diameter at breast height (dbh) and taller than 30 feet will be conducted. Determination of habitat suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.

Survey Timing: April 15–August 31

- If an active raptor or migratory bird nest is located during the pre-project surveys (see HMP Table 4-3, **Appendix 3.3**), notify the county and CDFW. To avoid disturbances to or loss of active nest sites, between March 1 and August 31, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. The 0.25-mile buffer may be reduced through consultation with the county and/or CDFW.

The Northstar HMP also includes resource management targets and practices for Resource Management Zone E to improve the quality and acreage of forest areas. Specific riparian and forest habitat mitigation is included in mitigation measure 6-9.

## **MITIGATION MEASURE 6-7** Mitigate for Impacts to Migratory Birds and Raptors

The project applicant shall implement the Northstar HMP practices identified below for raptors and apply these same survey practices and protection measures to the bald eagle, golden eagle, long-eared owl, and olive-sided flycatcher, as well as to other migratory birds with the potential to nest within the PSA. The applicant shall include the Northstar HMP practices and protection measures as standards in all improvement plans, building permits, use permits, and grading permits prior to their approval for all NMMP project components. The Placer County Planning Department shall be notified of the results of the preconstruction surveys and establishment of buffers to avoid migratory birds and raptors.

- Pre-project surveys for other nesting raptors will be conducted in suitable nesting habitat within 500 feet of vegetation removal, construction, and development activities, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. Visual surveys of trees larger than approximately 11 inches in diameter at breast height (dbh) and taller than 30 feet will be conducted. Determination of habitat suitability, and whether a pre-project survey is required, should be based on a reconnaissance field assessment of habitat conditions before initiating projects in these areas.

Survey Timing: April 15–August 31

- If an active raptor or migratory bird nest is located during the pre-project surveys (see HMP Table 4-3, **Appendix 3.3**), notify the County and the CDFW. To avoid disturbances to or loss of active nest sites, between March 1 and August 31, delay project activities within 0.25 mile of (or at a distance directed by the appropriate regulatory agency) the nest to avoid disturbance until the nest is no longer active. Project activities include vegetation removal, earth moving, and construction. The 0.25-mile buffer may be reduced through consultation with the County and/or the CDFW.

## **SIGNIFICANCE AFTER MITIGATION**

Implementation of the Northstar HMP practices noted above and mitigation measure 6-7 would ensure potential impacts to migratory birds and raptors would be reduced to a **less than significant** level by avoiding the species. Mitigation measure 6-9 would require preservation and improvement of riparian and forest habitat that would be impacted by the project at a 1:1 ratio.

## **IMPACT 6.8:** Impacts to Special-Status Bats

Bats roost in a wide variety of habitats, including buildings, mines, under bridges, rock crevices, caves, under tree bark, and in snags. The pallid bat, Townsend's big-eared bat, and spotted bat are considered California species of special concern. These species may utilize a variety of habitats and structures throughout the PSA, as well as adjoining off-site areas, for roosting and foraging. Suitable roosting habitat for these species includes in trees under bark, in snags, and caves. The disturbance of active maternity roosts would affect the reproductive success of the species, as young do not fly from the maternity roost until they reach several months in age (CDFW 2013d). Construction of the proposed project could disturb roosting bats and thus eliminate future roosting opportunities.

Construction of the project would require the removal of vegetation communities that could support roosting for these special-status bat species. Removal of this habitat would be considered a direct and significant impact if special-status bat species were taken or deterred from roosting. Construction and operation of the project could also result in noise, dust, and other indirect disturbances to wildlife in the project vicinity.

### **MITIGATION MEASURE 6-8**            Mitigate for Impacts to Special-Status Bats

Scheduled between April and the middle of August, a preconstruction survey by a qualified biologist approved by the County shall be conducted to determine the presence or absence of roosting bats or a maternity site, and will be reviewed and accepted by the Placer County Planning Services Division prior to site disturbance or construction activity. Surveys will be conducted by first visually inspecting all trees in the project area and identifying potential roosts and maternity sites (e.g., tree cavities). Dusk to early evening emergence surveys will then be conducted using high-quality night vision equipment to identify roost sites and the presence of any relatively high number of bats emerging from a specific location; the latter situation would be indicative of a maternity colony. If occupation of such a site (concentration of individuals) is confirmed two weeks later, then a maternity colony will be assumed and the location will be protected until mid-August, when young of the year would usually be able to fly and relocate. Removal of the maternity site (after mid-August) will be compensated for by locating a minimum of two similar but unoccupied trees outside of but in the proximity of the project area; these trees will be excluded from disturbance and removal. If no concentrations are found, then mitigation for any roosting (non-breeding) bats will be compensated for by the construction and installation of two bat boxes suitable to the bat species excluded from the original roosting site. The bat boxes shall be installed in the vicinity prior to removal of the original day roost sites. A detailed program for bat flushing, roosting site removal, and installation of bat boxes shall be developed in consultation with a qualified biologist.

### **SIGNIFICANCE AFTER MITIGATION**

Implementation of the Northstar HMP practices noted above and mitigation measure 6-8 would ensure potential impacts to special-status bats would be reduced to a **less than significant** level by avoiding direct impacts to the species. Mitigation measure 6-9 would require preservation and improvement of riparian and forest habitat that would be impacted by the project at a 1:1 ratio.

### **IMPACT 6.9:**            Impacts to Riparian Habitat or Sensitive Natural Communities

As described above in subsection 6.1.2 (Biological Setting), Northstar consists of two sensitive habitats that the Northstar HMP addresses: late-seral conifer forest habitat (92.6 acres) and riparian and aquatic habitat (127 acres). The Northstar HMP identifies enhancement opportunities for the greater conifer forest community through forestry treatments that improve forest health and stand growth, reduce the potential for catastrophic fire, and reduce the potential for insect outbreaks.

Project construction and operation for both project- and program-level components would result in the removal of trees (approximately 420.5 acres of trees) and approximately 176.2 acres of ground disturbance. Sensitive habitat impacts from the project include approximately 0.06 acres of riparian and wetland habitat from skier bridge improvements and approximately 3.8 acres of late-seral forest habitat from ski trail improvements near the Backside Express lift and improvements associated with the W lift.

While Z lift improvements would not impact late-seral forest habitat, they would result in disturbance of forest conditions in the western corner of Northstar that is currently intact (no

existing ski facilities or trails). Specifically, the Z lift and associated trail improvements (in combination with V and W lift improvements) would extend forest disturbance into this area, resulting in further opening of the forest canopy. This habitat alteration could result in impacts to special-status species (California spotted owl and northern goshawk of specific concern) from habitat fragmentation. Habitat fragmentation and human activities (such as noise) can result in disturbance and the loss of buffers from nest sites that result in nest failure by both species. California spotted owls are especially sensitive to habitat disturbance, as their populations consist of disconnected islands and they are known to compete with barred owls for habitat.

The V, W, and Z lifts and associated trail improvements have been designed to limit the extent of habitat fragmentation through aligning lift and ski trail improvements in existing open forest canopy areas with connection to existing ski trail features associated with the Backside Express lift, retention of tree islands within the ski trails to soften the forest impact, and minimizing the extent of late-seral forest habitat impacts. Forest clearing associated with the Z lift is limited to the lift itself and trail access from the W lift. In addition, the Z lift operations would be limited based on snow conditions given the Z lift's lower elevation on the mountain.

## **MITIGATION MEASURE 6-9**            Mitigate for Impacts to Habitat Loss

The project applicant shall ensure the proposed project components mitigate any loss of habitat in HMP Zones C, D, or E through the creation of a mitigation enhancement area at a 1:1 ratio of habitat loss to habitat enhancement. The habitat in the mitigation enhancement area shall be similar to the habitat where tree removal is conducted (i.e., conifer forest, late-seral forest, or riparian habitat) and shall occur in HMP Zone E in order to provide a large continuous habitat area. Demonstration of compliance with this mitigation measure shall be provided with the phased implementation of improvement plans, grading permits, and/or building permits for each project component that results in tree loss. The mitigation enhancement area shall also be protected from development with a conservation easement or similar mechanism.

## **SIGNIFICANCE AFTER MITIGATION**

Implementation of mitigation measure 6-9 would ensure potential impacts to riparian and aquatic habitat and to late-seral and conifer forest habitat would be reduced to a **less than significant** level through mitigating the loss at a 1:1 ratio. In addition, mitigation measures 6-2a and 6-2b, 6-3a and 6-3b, 6-4, 6-5a and 6-5b, 6-6, 6-7, and 6-8 all include specific measures to protect special-status wildlife species associated with construction activities (e.g., use of buffers) as well as operational protection measures (e.g., access and season use restrictions in Northstar HMP Management Zones D and E).

## **IMPACT 6.10:**            Impacts to Federally Protected Wetlands

Approximately 183.7 acres of wetlands and other waters of the United States occur within the PSA. While the majority of the proposed NMMP project components would avoid wetland features, the following components are in proximity to waters that may be federally protected and may result in impacts to these features. Skier bridge improvements may impact up to 0.06 acres of wetland and riparian habitat.

### Project-Level Components

- Additional ski trails, ski trail widening, snowmaking lines, and existing lift upgrades
- V lift and associated trails

- W lift and associated trails
- All five skier bridges

### Program-Level Components

- Q lift ski pod
- Castle Peak Gondola

Northstar HMP practices identified under Impact 6.1 would assist in reducing the extent of this impact.

### **MITIGATION MEASURE 6-10**      Mitigate for Impacts to Wetlands

The project applicant shall ensure that the project will result in no net loss of federally protected waters through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in CWA Section 404 and 401 permits and/or 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided prior to construction and grading activities for the proposed project.

### **SIGNIFICANCE AFTER MITIGATION**

Implementation of mitigation measure 6-10 would reduce impacts to federally protected wetlands to a **less than significant** level.

### **IMPACT 6.11:**      Impacts to Wildlife Movement

Movement corridors are not static in nature and will shift over time with changes in land use patterns outside the PSA. In addition, a suitable movement corridor for one species does not necessarily translate to all species, and the establishment of a movement corridor does not guarantee its use by targeted species. As a result, movement corridors are difficult to predict and will likely not be viable in the long term. However, the species that currently utilize the PSA and vicinity are not anticipated to be adversely impacted by the project due to the low intensity of uses proposed within areas occupied by sensitive resources (i.e., recreational uses). An evaluation of potential restrictions to wildlife movement for mule deer, California spotted owl, northern goshawk, and other special-status species is provided below.

### Mule Deer

In 1983, the CDFW prepared the Loyalton-Truckee Deer Herd Management Plan and provided additional data in 1988 and again in 2010 (CDFG 2010). The data presented in this plan identified two migration corridors through the PSA and a critical fawning area around Mt. Pluto. One corridor ran from the center of Resource Management Zone B to the north-northeast toward the Martis Valley. The second corridor ran along the western portion of the property from near the edge of Resource Management Zone D2 north through Resource Management Zone E2 toward the Truckee River. In 2001, the applicant funded a deer migration corridor study to verify whether the deer migration corridor passing nearest to the resorts developed area (Resource Management Zone B) was still active. The results of the study indicated that a migration corridor still exists in the vicinity of the corridor identified by the CDFW; however, the area used by migrating deer is somewhat west of the corridor originally identified by the CDFW and further west of existing or planned development. In addition, no substantial physical improvements are proposed at either the project or program level that would obstruct wildlife movement, and no

significant components are proposed in the vicinity of the corridor through Resource Management Zone E2. The avoidance of impacts to habitat associated with the mule deer migration routes, combined with the implementation of seasonal use restrictions outlined in the Northstar HMP (as noted under Impact 6.1) and the low intensity uses proposed (e.g., recreational activities), result in the determination that the NMMP components are not likely to conflict with mule deer movements. Thus, this impact is **less than significant**.

### California Spotted Owl and Northern Goshawk

California spotted owls and northern goshawks appear to disperse in random directions and do not make large seasonal movements (Simberloff et al. 1992; Iverson et al. 1996). In addition, research on the use of openings, edges, and habitat diversity by these species is inconclusive. Reynolds, Graham, and Boyce (2008) found that habitat use patterns were highly variable between individual northern goshawks: some avoided opening, edges, young forests, and old forests, whereas other selected for these characteristics. Franklin et al. (2000) and Ward, Gutiérrez, and Noon (1998) found that northern spotted owls foraged in ecotones between late- and early-seral conifer forest and that the amount of mature conifer forest at a territory's core and the amount of edge between these forest and other habitat types had a positive correlation with fitness.

Although suitable habitat for these species is distributed throughout the PSA, the known occurrences and majority of higher value habitats occur in the western portion of the PSA in Resource Management Zones D2 and E2. Although some program- and project-level components (e.g., ski trail development/expansion) will result in habitat fragmentation and the removal of some high to moderate value habitat, research suggests that these species can utilize openings and edges for foraging activities. In addition, implementation of seasonal use restrictions outlined in the Northstar HMP (as noted under Impact 6.2) will ensure these species are protected from disturbance during the more sensitive breeding season. As a result, it is not anticipated that the NMMP would result in significant obstructions or alterations to movement patterns for California spotted owl and northern goshawk within the PSA. Thus, this impact is **less than significant**.

### Other Special-Status Species

It is not anticipated that implementation of the proposed NMMP would result in any significant obstructions to wildlife movement, since no substantial physical structures or improvements are associated with the program- or project-level components. In addition, the low intensity of the proposed uses (i.e., predominantly recreation), combined with the implementation of the seasonal use restrictions (as noted under Impacts 6.2, 6.3, 6.4, and 6.6) and other protective measure (as noted under mitigation measures 6-5a, 6-5b, 6-7, and 6-8) that will be established to protect sensitive biological resources, will also ensure that movement patterns of forest carnivores, herbivores, migratory birds, and raptors are not restricted. Thus, this impact is **less than significant**.

### **IMPACT 6.12:** Conflicts with Local Policies or Ordinances

Implementation of the proposed NMMP is not expected to conflict with any local policies or ordinances protecting biological resources. Placer County has not adopted any biological ordinances that conflict with this project. As such, **no impact** is anticipated.

**IMPACT 6.13:** 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

Implementation of the proposed NMMP 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, **no impact** is anticipated.