INTRODUCTION

This section summarizes a biological resource field assessment as well as a review of literature regarding biological resources in the area. In addition, the section summarizes the applicable regulations and policies regarding biological resources. The section provides an analysis of direct and indirect impacts to biological resources that could occur as a result of project implementation. A detailed Floral and Faunal Compendia is provided in Appendix E of this EIR/EA.

3.6.1 REGULATORY FRAMEWORK

As part of the proposed project's review and approval there are a number of performance criteria and standard conditions that must be met relative to biological resources. These include compliance with all of the terms, provisions, and requirements of applicable laws that relate to Federal, State, and local regulating agencies for impacts to sensitive plant and wildlife species, wetlands, riparian habitats, and stream courses. The following provides a discussion of the applicable regulatory framework.

a. State of California Fish and Game Code, Section 1602

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, State or local government agency, or public utility) who proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, to notify California Department of Fish and Game (CDFG) of the proposed project. In the course of this notification process, the CDFG will review the proposed project as it affects streambed habitats within the project site. The CDFG may then place conditions on the Section 1602 clearance to avoid, minimize, and mitigate the potentially significant adverse impacts within CDFG jurisdictional limits.

b. Federal Clean Water Act, Section 404

Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged material, placement of fill material, or excavation within "Waters of the U.S." and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. "Waters of the U.S." are defined by the CWA as "rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands." Wetlands are defined by the CWA as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions." The permit review process entails an assessment of potential adverse impacts to U.S. Army Corps of Engineers (ACOE) jurisdictional "Waters of the U.S." and wetlands. In response to the permit application, the ACOE will also require conditions amounting to mitigation measures. Where a Federally listed species may be affected, they will also require Section 7 consultation with the U.S. Fish & Wildlife Service (USFWS) under the Federal Endangered Species Act (ESA) unless a Section 10(a) permit for the species has already been issued.

c. Federal Clean Water Act, Section 401

The mission of the California Regional Water Quality Control Board (RWQCB) is to develop and enforce water quality objectives and implement plans, which will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology, and hydrology. Section 401 of the CWA requires that:

> "any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act."

Therefore, before the ACOE will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the RWQCB. A complete application for 401 Certification will include a conceptual Water Quality Management Plan that will address the key water quality features of the project to ensure the integrity of water quality in the area during and post-construction.

Under separate authorities granted by State law (i.e., the Porter-Cologne Water Quality Control Act), a RWQCB may assert jurisdiction over dredge or fill activities within non-Federal waters through issuance of Waste Discharge Requirements (WDRs). Processing of a WDR is similar to that of a Section 401 certification and addressing impacts to non-Federal waters may be streamlined within the 401 process at RWQCB discretion.

The Town of Mammoth Lakes entered into a Construction Sites Erosion Control Memorandum of Understanding (MOU) with the RWQCB in 1991. Under this MOU, the Town is able to expedite construction permits for project encompassing less than five acres and administer erosion control measures through site inspections and plan reviews.

d. Federal Endangered Species Act, Section 10 and Section 7

Take of a threatened or endangered species is prohibited under federal law without a special permit. Section 10(a)(1)(B) of the ESA allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS. For federal projects (including those involving federal funding), Section 7 of the ESA allows for consultation between the affected agency and the USFWS to determine what measures may be necessary to compensate for the incidental take of a listed species. A "federal" project is any project that is proposed by a federal agency or is at least partially funded or authorized by a federal agency. If the listed species or federally designated "critical habitat" for that species occurs in a portion of the project subject to federal jurisdiction or activity (such as "Waters of the United States"), then consultation under Section 7 of the Act is usually permissible and may be required.

e. The Town of Mammoth Lakes General Plan (1987)

The objective of the Town of Mammoth Lakes General Plan, Conservation and Open Space Element, is to provide goals and policies which will manage and protect the community's resources to assure their continued existence. Biological resources that need protection include the following:

- Vegetation – The retention of vegetation will contribute to the natural beauty and ecological balance of Mammoth Lakes. This includes listed and sensitive plants which are known to occur in the Mammoth Lakes area.

- Wildlife and Fisheries – The natural habitats in the Mammoth Lakes area support a diverse wildlife population to include approximately 75 species of mammals, 150 species of birds, and 15 species of reptiles and amphibians. In addition, several sensitive or listed wildlife species occur in the Mammoth Lakes area. Mule deer, although not considered sensitive, are a concern considering new growth and development. Mule deer spend the summer in the Mammoth Lakes area and migrate to an area southeast of Mammoth Lakes during the winter. The Hot Creek Fish Hatchery is one of the most productive in the State. Hot Creek is a designated wild trout stream and is considered a blue ribbon stream according to the CDFG. The viability of this hatchery depends upon the quantity of surface water from Mammoth

Creek and the continued natural flows of warm spring water. The quality of water from Mammoth Creek has declined in recent years.

f. The Town of Mammoth Lakes Draft General Plan (Update 2005)

One of the objectives of the Town of Mammoth Lakes Draft General Plan is to ensure that "wildlife, habitat, fisheries, water, and vegetation resources of significant biological, ecological, aesthetic, and recreational value are protected and conserved." The habitat and wetland conservation policies of the General Plan include the following:

- "The Town shall protect wetlands, wet meadows, and riparian areas from impacts related to development." Implementation measures for this goal include continuing efforts to ensure a continuous public corridor along Mammoth Creek with a defined corridor width, obtaining appropriate permits through the ACOE, CDFG, and RWQCB for all activities within jurisdictional wetlands, and compensating for loss of wetlands and/or riparian vegetation through replacement, rehabilitation, or creation of wetland habitat as approved by appropriate State and federal agencies.

- "The Town shall identify and protect important wildlife and biological habitat in town." Implementation measures for this goal include maintaining an up-to-date inventory of all special status wildlife species, plant species, and plant communities within the Planning Area; assessing site-specific resource values and potential impacts for future development projects; and preparing species, habitat, and natural community conservation strategies.

- "The Town shall minimize wildlife and human interactions as much as feasible." Implementation measures include maintaining animal-resistant trash receptacles at town facilities and requiring private land owners to adopt good wildlife management practices.

- "The Town shall protect and conserve forest woodland resources for their wildlife habitat, recreation, water production, and aesthetic values." Implementation measures include incorporating a site design that will make every feasible effort to avoid large specimen trees and replant with native trees, complying with the California Department of Forestry timber harvesting regulations for private lands, and prohibiting tree removal activities that facilitate improved views.

- "The Town shall protect and enhance the region's fish habitat." Implementation measures include supporting fishery management activities, supporting efforts to regulate in-stream flows and lake levels, and requiring new development in the

vicinity of Mammoth Creek to preserve stream bank vegetation and maintain minimum setbacks.

Another objective of the Town of Mammoth Lakes Draft General Plan is to ensure that "trees, native vegetation, and wildlife maintain a prominent place in the community." The native environment preservation policies of the Draft General Plan include the following:

- "The Town shall ensure that new development is designed to protect and showcase our natural environment." Implementation measures for this goal include possibly requiring a tree survey with a preservation and replacement plan to be filed with the Town prior to issuance of a grading permit, planting of native trees to replace the loss of trees removed during construction, and incorporating "aggressive replanting with native trees". Thinning of trees will be permitted where needed to maintain public safety and encourage growth of new trees.

g. USDA Forest Service

USDA Forest Service Sensitive Species

The National Forest Management Act (NFMA) of 1976 and its implementing regulations require the Forest Service to ensure a diversity of animal and plant communities and maintain viable populations of existing native species as part of their multiple use mandate. The USDA Forest Service (USFS) sensitive species program is a proactive approach to conserving species to ensure the continued existence of viable, well-distributed populations, and to maintain biodiversity of National Forest Service lands (USDA Forest Service 2004). In addition, the Secretary of Agriculture's policy on fish and wildlife (Department Regulation 9500-4) directs the USFS to avoid actions "which may cause a species to become threatened or endangered."

The USFS defines sensitive species as those animal and plant species identified by a regional forester for which population viability is a concern. This may be a result of significant current or predicted downward trends in habitat that would reduce a species' existing distribution or significant current or predicted downward trends in density or population numbers (CNDDB 2005, Special Animals List).

The USFS, Pacific Southwest Region, maintains a Regional Forester's Sensitive Species List. This list was last updated in 1998 and consists of rare plants and animals which are given special management consideration to ensure their continued viability on the national forests. Species on the sensitive species list are considered sensitive for every forest where they occur in the region (USDA Forest Service 1998).

Inyo National Forest Land and Resource Management Plan

The Inyo National Forest Land and Resource Management Plan establishes the management, direction, and long-range goals for the Inyo National Forest (U.S. Forest Service 1988). Management goals for the Inyo National Forest include (but are not limited to) the following:

- Protect and improve riparian area-dependent resources while allowing for management of other compatible uses.
- Protect or improve the habitats of threatened or endangered species in cooperation with State and other federal agencies.
- Protect sensitive plants to ensure they will not become threatened or endangered.
- Manage wildlife habitat to provide species diversity, ensure that viable populations of existing native wildlife is maintained, and that the habitats of management emphasis species are maintained or improved.
- Manage timber resources to provide a sustained yield of commercial sawtimber, public fuelwood, and wood products while maintaining other resource values.

Forest-wide Standards and Guidelines provide specific guidelines for the management of each resource to ensure its enhancement and protection. These include (but are not limited to) the following:

Riparian Areas

- Protect streams, streambanks, lakes, wetlands, and shorelines, and the plants and wildlife dependant on these areas.
- Prevent adverse riparian area changes in water temperature, sedimentation, chemistry, and water flow.
- Rehabilitate and/or fence riparian areas that consistently show resource damage.
- Allow new developments and surface disturbance in riparian areas only after on-site evaluations have determined that resources are not adversely affected, or mitigation of any adverse impacts is identified and incorporated into the project design.

Sensitive Plants

- Allow no new disturbance of identified sensitive plant habitat without direction from Interim Management Guidelines, Species Management Guides, or an environmental analysis.

- Complete inventories of project sites and areas of disturbance if there is potential habitat or known population locations identified.

Wildlife – Threatened, Endangered, and Sensitive Wildlife Species

- Cooperate with the USFWS and the CDFG in the management of threatened and endangered species.

- Submit proposals for actions that might affect the continued existence of a threatened or endangered species to the USFWS for formal consultation.

Wildlife – Management Indicator Species

- Carnivores (Sierra Nevada red fox, pine marten, fisher, and wolverine): Maintain the integrity of habitats required by these species. Inventory project areas where development could alter habitats required by these species.

- Mule Deer: Maintain or enhance the integrity of key winter ranges, holding areas, migration routes, and fawning areas. The goal is to maintain deer habitat to support deer populations consistent with herd management area objectives. Coordinate with the CDFG in implementing existing deer herd plans. Goals of the CDFG herd management plans for the Buttermilk and Sherwin Grade Herds (which now comprise the Round Valley Herd) include maintaining the population of the Buttermilk Herd near current levels (3,000 deer) and maintaining the Sherwin Grade Herd at the current population (2,300 to 2,400 deer).

- Bald Eagle: Maintain the integrity of existing wintering areas. Maintain and enhance prey-base populations within winter foraging areas. Implement the Pacific States Bald Eagle Recovery Plan, and prepare a local winter bald eagle management plan.

- Golden Eagle and Prairie Falcon: Maintain and enhance the integrity of nesting habitats.

- Tule Elk: Follow the guidelines of the Tule Elk Management Plan for the Owens Valley.

- Peregrine Falcon: Establish two nesting pairs of peregrine falcons and implement the Pacific Coast American Peregrine Falcon Recovery Plan prepared by the USFWS.

- Goshawk: Maintain a density of at least one goshawk territory per eighteen square miles within goshawk habitat range. Maintain at least one hundred acres of mature timber per territory. Exclude timber activities within occupied nest stands during the nesting period.

- Blue Grouse: Maintain or enhance blue grouse habitat by protecting vegetative diversity, riparian habitat, and down logs.

- Sage Grouse: Allow no vegetative treatment in sage grouse habitats that would have a significant negative impact on the species. Recognize the sensitivity of sage grouse leks during March 1 through April 30.

- Spotted Owl and Great Gray Owl: Conduct periodic inventories. If owls are located, maintain foraging and nesting habitat.

- Sierra Nevada Mountain Sheep and Nelson Mountain Sheep: Maintain existing sheep habitat, and maintain the health of established mountain sheep populations.

- Riparian Area-Dependant Species: Maintain the viability of the yellow warbler by implementing management direction for riparian habitats.

- Snag-Dependant Species: Maintain the habitat of the hairy woodpecker and Williamson sapsucker by implementing management direction for snags, down logs, and habitat diversity.

Sierra Nevada Forest Plan Amendment

On January 21, 2004, a new Record of Decision (ROD) for the Sierra Nevada Forest Plan Amendment (SNFPA) was signed. The final Supplemental Environmental Impact Statement (SEIS) and ROD amended the existing Sierra Nevada Forest Plan to improve the protection of wildlife habitats, watersheds, old forests, and communities in the Sierra Nevada Mountains and Modoc Plateau. The SEIS evaluates new information available since the adoption of the SNFPA ROD and proposes to make changes in specific standards and guidelines. The SEIS, therefore, focuses on those management indicator species (MIS) that may be affected by changes in levels of activity or habitat as a result of the proposed alternatives.

MIS are identified in the Land and Resources Plans of each national forest. MIS are designated as such because they are sensitive to National Forest System management activities and/or they represent habitat types that occur within the national forest boundary. Federally

listed threatened, endangered, or proposed species and Forest Service sensitive species were excluded from further evaluation in the SEIS because effects to those species are considered in more detail in the FEIS, SEIS, and other environmental documentation. The remaining MIS were assigned to one or more primary habitat associations because lists of MIS for individual forest plans vary in terms of habitat representation or sensitivity to management activity.

Habitat classifications that correspond with each MIS include the following: Snag and Down Log; Meadow, Riparian (Wetlands); Aquatic (Lakes/Streams); Chaparral; Cliff, Caves, Talus, and Rock Outcrops; Hardwoods (Oaks, Aspen); Openings and Early Seral Stages; Pinyon Juniper; Eastside Pine; Ponderosa Pine; Grasslands and Shrub-Steppe; Mature Conifer; Multi-Habitat; and Mixed Conifer.

h. California Department of Forestry

According to the 2005 California Forest Practice Rules, Title 14, California Code of Regulations, Chapter 4, Subchapter 7, Administration, Article 2, Timber Harvesting Plan; Section 1038, Exemption, persons who conduct the following types of timber operations are exempt from submission requirement and plan preparation:

- Harvesting of Christmas trees.
- Harvesting of dead, dying, or diseased trees.
- Cutting or removal of trees for fuel modification purposes: only trees within 150 feet from any point of an approved structure that complies within the California Building Code may be harvested.

No trees existing before 1800 A.D., Sierra or coast redwoods greater than 60 inches in diameter at stump height, or trees species 48 inches in diameter at stump height shall be harvested unless done so under the conditions outlined in subsection 1038 (h). California Department of Forestry Rules do not generally apply to federal forest lands and therefore, would apply to the privately-owned portion of the project site.

3.6.2 AFFECTED ENVIRONMENT

a. Biological Survey Methods

The assessment of biological resources contained in this EIR/EA is based on information compiled through field reconnaissance, previous documentation, and appropriate reference

materials. The project site was surveyed by PCR biologists on September 23, 2005 to document the plant communities, to assess the potential for the project site to support sensitive species and/or habitats, and to determine the potential planning constraints. The project site includes those are within the grading limits of the proposed project. No focused surveys were conducted. A jurisdictional delineation was not conducted for the project site.

The study began with a review of relevant literature on the biological resources of the project site and the surrounding vicinity. Initially, the California Natural Diversity Database (CNDDB), a CDFG sensitive resources account database, was reviewed for all pertinent information regarding the locations of known observations of sensitive species and habitats in the vicinity of the Eagle Lodge project site. Federal register listings, protocols, and species data provided by the USFWS and CDFG were reviewed in conjunction with anticipated federally and State listed species potentially occurring within the vicinity. Information pertaining to sensitive species provided by the Inyo National Forest was also reviewed. In addition, numerous regional flora and fauna field guides were utilized to assist in the identification of species and suitable habitats. In addition, previous documentation relevant to the project site was reviewed to include the following:

- Biological Evaluation for Mammoth Mountain Ski Area Base VII Expansion Project, dated March, 1998.
- Botanical Survey of the Juniper Ridge Revised Project Area, Mammoth Lakes, Mono County, California, prepared by Mark Bagley, dated September, 1994.
- Initial Study for Eagle Lodge Base Area Development Project, prepared by PCR, January 2006.
- Juniper Ridge, Revised Master Plan Environmental Impact Report, prepared by L.K. Johnston and Associates, dated December 1, 1989.
- Mammoth Mountain Ski Area, Base VII Expansion Project, Environmental Assessment, prepared by LSA Associates, Inc., dated July, 1996.
- Mammoth Mountain Ski Area Base VII Expansion Project, Environmental Assessment, prepared by LSA, dated February, 1997.
- Town of Mammoth Lakes 2005 General Plan Update, Revised Draft Program, Environmental Impact Report, prepared by PCR Services Corporation, dated October, 2005.

Plant communities within the project site were mapped with the aid of a 1"=600' scale aerial photograph. Plant community boundaries were delineated directly onto the aerial

photograph while in the field. Plant communities were then digitized using Geographic Information System (GIS) technology to calculate acreage. Plant community names and hierarchical structure follows the CDFG *List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base* (September 2003). Plant community descriptions were based on PCR findings and descriptions contained in Sawyer and Keeler-Wolfe's *A Manual of California Vegetation* (1995) and Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986). Scientific names are employed upon initial mention of each species; common names are employed thereafter.

All plant species observed during surveys were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Hickman (1993). Common plant names were taken from Hickman (1993) and Munz (1974). Because common names vary significantly between references, scientific names are included upon initial mention of each species; common names consistent throughout the report are employed thereafter. All plant species observed are included in Appendix E, *Floral and Faunal Compendia*.

All wildlife species observed during the field surveys by sight, call, tracks, nests, scat (fecal droppings), remains, or other sign were recorded. Binoculars and regional field guides were utilized for the identification of wildlife, as necessary. All wildlife species observed within the project site, as well as diagnostic signs, were recorded in field notes. In addition to species actually detected, expected use of the project site by other wildlife was derived from the analysis of habitats within the project site combined with known habitat preferences of regionally-occurring wildlife species.

Wildlife taxonomy follows Stebbins (2003) for amphibians and reptiles, the American Ornithologists' Union (1998) for birds, and Jameson and Peeters (1988) for mammals. Scientific names are used during the first mention of a species; common names only are used in the remainder of the text. A list of all wildlife species detected within the project site is included in Appendix E, *Floral and Faunal Compendia*.

b. Plant communities

The Eagle Lodge project site supports seven plant communities, ponds, disturbed areas, and developed areas. Three of these plant communities occur within the portion of the project site owned by MMSA and four plant communities occur within property owned by the USFS as shown in Table 46, *Plant Communities Within Project Site*, on page 233 and Figure 18, *Plant Communities*, on page 234. Plant community classifications follow Holland and, where appropriate, Sawyer and Keeler-Wolfe.

Table 46

Plant Communities Within Project Site

Vegetation Community	Acres Within Privately Owned Land	Acres Within USFS-Owned Land
Native		
Aspen Series	0.1	0.0
Big Sagebrush Scrub	0.0	0.6
Jeffrey Pine Forest	0.0	0.2
Narrow-leaf Willow Series (Scrub)	0.2	0.0
Ruderal		
Ruderal	0.0	1.3
Ruderal/Big Sagebrush Scrub	0.6	0.0
Ruderal/Montane Meadow	0.0	<0.1
Other		
Pond	<0.1	0.1
Disturbed	0.8	0.0
Developed	3.1	1.8
TOTAL	**4.8**[1]	**4.0**

[1] *The total land area includes the Majestic Pines Road right-of-way since the right-of-way is an easement over Lots 5 and 87. Therefore, the privately owned land is greater than the number used in other places in this document.*

Source: PCR Services Corporation, 2006

Native

Aspen series consists of quaking aspen (*Populus tremuloides*) as the sole or dominant tree in the tree canopy. Trees tend to be less than 35 meters in height with a continuous, intermittent, or open canopy. This plant community occurs on seasonally and permanently saturated soils and along streamsides or springs. Additional plant species that may occur in this community include red fir (*Abies magnifica*) and white fir (*Abies concolor*).

The dominant species within this plant community on-site includes quaking aspen. Additional species observed include snowberry (*Symphoricarpus parishii*) and arroyo willow (*Salix lasiolepis*). This community occupies 0.1 acre within privately owned land, and occurs adjacent to a parking lot in the southern portion of the project site.

Big sagebrush scrub consists of mostly soft-woody shrubs usually with bare ground underneath and between shrubs. Great Basin sagebrush (*Artemisia tridentata*) is the dominant species, and growth occurs mostly in late spring and early summer. This plant community is dormant during the winter and occurs on a wide variety of soils and terrain, from rocky, well-drained slopes to fine-textured, valley soils with a high water table. Characteristic species may include Great Basin sagebrush, four-wing saltbush (*Atriplex canescens*), rubber rabbitbrush

PCR

N

100 0 100 Feet

Source: Aerial (2003); PCR Services Corporation, 2006

Figure 18
Plant Communities within the Project Site

(Chrysothamnus nauseosus), Idahoe fescue (Festuca idahoensis), antelope bitterbrush (Purshia tridentata), and elymus (Elymus cinereus).

The dominant species observed within this plant community on-site is Great Basin sagebrush. Additional species observed include antelope bitterbrush, slender cinquefoil (*Potentilla gracilis*), common yarrow (*Achillea millefolium*), and silver wormwood (*Artemisia ludoviciana*). Big sagebrush scrub occupies 0.6 acre within USFS-owned land, and occurs within the northwestern portion of the project site.

Jeffrey pine forest is characterized as a tall, open forest dominated by Jeffrey pine (*Pinus jefferyi*) with sparse understories of either montane chaparral or sagebrush scrub. This community occurs on dry, cold sites, especially on well-drained slopes, ridges, or cold air accumulation basins. Characteristic species may include Jeffrey pine, Great Basin sagebrush, antelope bitterbrush, huckleberry oak (*Quercus vaccinifolia*), and snowberry.

The dominant species observed within the Jeffrey pine forest on-site is Jeffrey pine. Additional species observed include lodgepole pine (*Pinus contorta*), antelope bitterbrush, Great Basin sagebrush, clover (*Trifolium cyathiferum*), silver wormwood, common yarrow, snowberry, and aster (*Aster integrifolius*). Jeffrey pine forest occupies 0.2 acre within USFS-owned land, and occurs within the northwestern portion of the project site.

Narrow-leaf willow series (scrub) consists of narrow-leaf willow (*Salix exigua*) as the sole or dominant shrub in the shrub canopy. Shrubs tend to be less than seven meters in height with a continuous canopy. This plant community occurs on seasonally flooded or saturated habitats, within floodplains, and along rivers and streams. Additional plant species that may occur in this community include Fremont cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*) and willow (*Salix* spp.)

This plant community on-site consists of a monoculture of narrow-leaf willow shrubs. Narrow-leaf willow scrub occupies 0.2 acre within privately owned land, and occurs adjacent to a parking lot in the eastern portion of the project site.

Ruderal

Ruderal vegetation consists of a predominance of non-native weedy species that readily colonize disturbed ground. Characteristic species may include tumble mustard (*Sisymbrium altissimum*), Russian thistle (*Salsola tragus*), and white sweetclover (*Melilotus alba*).

Species observed within the ruderal areas on-site include tumble mustard, Kentucky bluegrass (*Poa pratensis*), and peppergrass (*Lepidium virginicum* var. *virginicum*). A ruderal

area is present in the western portion of the project site and comprises 1.3 acre within USFS land.

Ruderal/big sagebrush scrub consists of vegetation characteristic of a big sagebrush scrub community with an equal or greater percent cover of non-native, ruderal species. Big sagebrush scrub and ruderal communities are described above.

Species within this plant community on-site include horseweed (*Conyza canadensis*), mountain tarweed (*Madia glomerata*), tumble mustard, blue wild rye (*Elymus glaucus*), rubber rabbitbrush, peppergrass, Kentucky bluegrass, desert crested wheatgrass (*Agropyron desertorum*), silver wormwood, and a few small Jeffrey pine and lodgepole pine. Non-native species contributed to approximately 50 percent of the vegetation cover in this community. Big sagebrush scrub/ruderal occupies 0.6 acre within privately owned land and occurs adjacent to a parking lot within the eastern portion of the project site.

Ruderal/montane meadow consists of vegetation characteristic of a montane meadow community with an equal or greater percent cover of non-native, ruderal species. Montane meadow is characterized by a dense growth of sedges and other perennial herbs which has its main growth period from late spring through summer. This plant community includes both wet and dry montane meadows, and wet montane meadows have soils that remain saturated throughout the year. This plant community occurs on fine-textured, more or less permanently moist or wet soils. Characteristic species may include sedge (*Carex* spp.), spikerush (*Eleocharis acicularis*), rush (*Juncus* spp.), lupine (*Lupinus polyphyllus*), and scirpus (*Scirpus congdonii*).

The dominant species observed within ruderal/montane meadow on-site include Kentucky bluegrass (*Poa pratensis*), and spikerush (*Eleocharis macrostachya*). Additional species observed include rush (*Juncus* sp.), bent grass (*Agrostis* sp.), lupine (*Lupinus latifolius*), narrow-leaved cattail (*Typha angustifolia*), fireweed (*Epilobium ciliatum*), creeping bent (*Agrostis stolonifera*), sedge, spikerush (*Eleocharis palustris*), cudweed (*Gnaphalium purpureum*), oniongrass (*Melica bulbosa*), annual beard grass (*Polypogon monspeliensis*), mayweed (*Anthemis cotula*), slender cinquefoil (*Potentilla gracilis*), and pineapple weed (*Chamomilla suaveolens*). Non-native species contributed to approximately 60 percent of the vegetation cover in this community. Ruderal/montane meadow occupies less than 0.1 acre (0.03 acre) within USFS-owned land. This community occurs within a man-made detention basin adjacent to Juniper Lodge in the southwestern portion of the project site.

Other

Two **ponds** were observed within the project site at the time of the September 23, 2005 site visit within a man-made detention basin adjacent to Juniper Lodge in the southwestern

portion of the project site and within a man-made detention basin below Chair 15. A small amount of narrow-leaved cattail is present within these ponds. The ponds comprise 0.1 acre within USFS owned land and less than 0.1 acre (0.01 acre) within privately owned land for a total of 0.1 acre on-site.

Disturbed areas consist of areas that lack vegetation or contain a sparse amount (less than 20 percent) of vegetative cover that usually consists of ruderal species. Disturbed areas comprise 0.8 acre of privately owned land adjacent to a parking lot in the northeastern and southeastern portion of the project site.

Developed areas on-site consist of ornamental plantings, roads, and a parking lot. Developed areas comprise approximately 3.1 acres within privately owned land and 1.8 acres within USFS-owned land for a total of 4.9 acres on-site. Developed areas occur throughout the eastern and southwestern portion of the project site.

c. Town of Mammoth Lakes Jurisdictional Trees

A few immature lodgepole pine and Jeffrey pine, as well as small stands of quaking aspen, narrow-leaf willow and a few arroyo willow occur adjacent to the existing parking lot within the privately owned portion of the project site[52]. The stand of quaking aspen comprises approximately 0.1 acre, and the stand of narrow-leaf willow comprises approximately 0.2 acre within the project site. The narrow-leaf willows and arroyo willows in the area adjacent to the existing parking are better classified as shrubs than trees due to their small stature.

Several mature Jeffrey pines and lodgepole pines are located within USFS land on-site. In addition, mature pines are located within developed areas surrounding the detention basins adjacent to Juniper Lodge.

d. Existing Jurisdictional Waters

A jurisdictional delineation has not been conducted on site; however, it is believed that no ACOE jurisdictional "waters of the U.S." and ACOE jurisdictional wetlands exist within the project site. It appears that wetlands occur within the two man-made detention basins in the southwestern portion of the project site and the man-made detention basin at the base of Chair 15; however, these are isolated, man-made features. Since these features are isolated and are located on naturally occurring uplands that lack natural wetland or water features and do not naturally support riparian or wetland vegetation, the detention basins would not be considered

[52] *A tree survey was not conducted by PCR during the September, 2005 site visit.*

under the jurisdiction of the ACOE as "waters of the U.S." These features may be considered "waters of the State" and fall under the jurisdiction of the CDFG and RWQCB.

Based upon observations made during the field visit conducted on September 23, 2005, one drainage feature which may be considered under the jurisdiction of the ACOE and/or the CDFG is located very close to the northwestern boundary of the project site. This drainage is ephemeral and only contains water during winter and spring months. Water was present within the drainage during the time of the site visit as a result of a broken water main further upstream.

Additional details regarding drainage patterns on-site are provided in Section 3.10, Hydrology and Water Quality, of this document.

Wildlife

The plant communities discussed above provide wildlife habitat; however, due to the fact that the project site is almost completely surrounded by development, wildlife diversity within the project site is expected to be low. Natural open space exists within USFS land in the northwestern corner of the project site within the vicinity of Chair 15; however, this area also accommodates a functioning chair lift. Only wildlife species accustomed to human disturbance due to noise, traffic, etc. are expected to occur.

Following are discussions of wildlife populations within the project site, segregated by taxonomic group. Representative examples of each taxonomic group either observed or expected within the project site are provided. Wildlife species actually observed, as well as those expected to occur, within the project site are indicated in Appendix E, *Floral and Faunal Compendia*.

(1) Invertebrates

Focused surveys for common invertebrate species were not conducted; however, the project site would be expected to support populations of a diverse assortment of invertebrates due to the number of diverse plant communities on-site.

(2) Amphibians

Terrestrial amphibian species may or may not require standing water for reproduction. Terrestrial species avoid desiccation by burrowing underground; within crevices in trees, rocks, and logs; and under stones and surface litter during the day and dry seasons. Due to their secretive nature, terrestrial amphibians are rarely observed, but may be quite abundant if conditions are favorable. Aquatic amphibians are dependent on standing or flowing water for

reproduction. Such habitats include fresh water marshes and open water (reservoirs, permanent and temporary pools and ponds, and perennial streams). Many aquatic amphibians will utilize vernal pools as breeding sites. These pools are temporary in duration and form following winter and spring rains.

One detention basin contained water during the September 23, 2005 surveys; however, this water source may not contain water perennially. The project site has the potential to support a few amphibian species including include Pacific treefrog (*Hyla regilla*) and California toad (*Bufo boreas halophilus*). All amphibian species expected to occur within the project site are included in Appendix E, *Floral and Faunal Compendia*. Sensitive amphibian species are discussed further in Section 3.6.2,(d), Sensitive Biological Resources.

As noted previously, Pacific tree frog may occur on-site. This is a MIS associated with meadow, riparian (wetlands), and aquatic (lakes/streams) habitat types in the SEIS of the SNFPA.

(3) Reptiles

Reptiles, as a group, occupy a much broader spectrum of habitats than amphibians. Reptilian diversity and abundance typically varies with habitat type and character. Some species prefer only one or two natural communities; however, most will forage in a variety of communities. A number of reptile species prefer open habitats that allow free movement and high visibility. Most species occurring in open habitats rely on the presence of small mammal burrows for cover and escape from predators and extreme weather.

Several species have the potential to occur on-site. These include rubber boa (*Charina bottae*), mountain garter snake (*Thamnophis elegans elegans*), Sierra alligator lizard (*Elgaria coerulea palmeri*), and Sierra fence lizard (*Sceloperus occidentalis*). All reptile species expected to occur within the project site are included in Appendix E, *Floral and Faunal Compendia.* Sensitive reptile species are discussed further in Section 3.6.2,(d), Sensitive Biological Resources.

As noted previously, mountain garter snake may occur on-site. This is a subspecies of the western terrestrial garter snake (*Thamnophis elegans*), which is a MIS associated with meadow and riparian (wetlands) habitat types in the SEIS of the SNFPA.

(4) Birds

The upland and riparian habitats within the project site provide foraging and cover habitat for year-round and seasonal residents; however, due to the project site's small size and proximity

to development and human disturbance, bird diversity is expected to be low. Bird species detected during the September 23, 2005 site visit include European starling (*Sturnus vulgaris*), Stellar's jay (*Cyanocitta stelleri*), Brewer's blackbird (*Euphagus cyanocephalus*), and American crow (*Corvus brachyrhynchos*). Bird species expected to occur on-site include mourning dove (*Zenaida macroura*), rufous hummingbird (*Selasphorus rufus*), Allen's hummingbird (*Selasphorus sasin*), northern flicker (*Colaptes auratus*), Clark's nutcracker (*Nucifraga columbiana*), common raven (*Corvus corax*), mountain chickadee (*Poecila gambeli*), house wren (*Troglodytes aedon*), spotted towhee (*Pipilo erythrophthalmus*), white-crowned sparrow (*Zonotrichia leucophrys*), song sparrow (*Melospiza melodia*), and lesser goldfinch (*Carduelis psaltria*).

Raptor species expected to occur on-site include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). All bird species expected to occur within the project site are included in Appendix E, *Floral and Faunal Compendia.* Sensitive bird species are discussed further in Section 3.6.2(d), Sensitive Biological Resources.

As noted previously, northern flicker, song sparrow, and white-crowned sparrow have the potential to occur on-site. Northern flicker is a MIS associated with snag and down log (cavity-nesters) and mixed conifer habitat types in the SEIS of the SNFPA. The song sparrow and white-crowned sparrow are MIS associated with meadow and riparian (wetlands) habitat types.

(5) Mammals

Due to the project site's small size and proximity to development and human disturbance, mammal diversity is expected to be low, especially for large mammal species. Most mammals are either nocturnal, reclusive, or both, and are more often detected by their sign, denning sites, etc., or through live-trapping (rodents).

Mammal species expected to occur on-site include those species more adapted to urban environments including California ground squirrel (*Spermophilus beecheyi*), lodgepole chipmunk (*Tamias speciosus*), mountain pocket gopher (*Thomomys monticola*), deer mouse (*Peromyscus maniculatus*), long-tailed weasel (*Mustela frenata*), and raccoon (*Procyon lotor*). There is a low potential for mule deer (*Odocoileus hemionus hemionus*) to occur on-site, since this species is more secretive and less tolerant of human disturbance. All mammal species expected to occur within the project site are included in Appendix E, *Floral and Faunal Compendia.* Sensitive mammal species are discussed further in Section 3.6.2(d), Sensitive Biological Resources.

As noted previously, mule deer has a low potential to occur on-site, and raccoon has a moderate to high potential to occur on-site. Mule deer is a MIS associated with multi-habitat and openings and early seral stages habitat types in the SEIS of the SNFPA. Raccoon is a MIS associated with multi-habitat and riparian (wetland) habitat types.

Although not considered a sensitive wildlife species, mule deer are considered an important harvest species by the CDFG. The Town of Mammoth Lakes is located within the Eastern Sierra Nevada Deer Assessment Unit. Deer populations within the Town of Mammoth Lakes consist of Rocky Mountain mule deer from the Round Valley and Casa Diablo herds. Some deer from both herds use the Doe Ridge area (approximately seven miles east of the project site) throughout the summer. These herds are migratory. Deer herd management plans were prepared by the CDFG in the mid 1980's for both herds. Management objectives include enhancing important winter, holding, migratory, and fawning habitats. Migratory movements occur over a six to ten week period. Deer begin their spring migration in April or May after occupying holding areas to feed and regain strength lost over the winter. When the snow recedes and forage is available at their higher elevation summer ranges (usually mid-June), they migrate to these areas.

The Round Valley herd encompasses approximately 2,000 square miles and includes the west slope of the Sierra Nevada to the San Joaquin Ridge. The Mammoth Pass herd segment of the Round Valley herd uses a route that heads westerly below Mammoth Rock, passes through the Mammoth Lakes Basin, and then crosses over Mammoth Pass into the Middle Fork of the San Joaquin River Drainage (Town of Mammoth Lakes General Plan EIR 2005). The project site is located within the Mammoth Lakes Basin.

The Casa Diablo herd's winter range includes the lower elevations near Benton, California to the north end of Owen's Valley. Some deer from this herd migrate across Doe Ridge towards their summer range on the higher elevations of the eastern Sierra Nevada (between June Lake and Lee Vining).

e. Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because such conditions preclude the infusion of new individuals and genetic information into isolated populations (MacArthur and Wilson 1967, Soule 1987, Harris and Gallager 1989, Bennett 1990).

Corridors effectively act as links between different populations of a species. A group of smaller populations (termed "demes") linked together via a system of corridors is termed a "metapopulation." The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health and long-term viability.

Corridors mitigate the effects of habitat fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983, Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). Each type of movement may also be represented at a variety of scales from non-migratory movement of amphibians, reptiles, and some birds, on a "local" level to many square mile home ranges of large mammals moving at a "regional" level.

A number of terms have been used in various wildlife movement studies, such as "travel route," "wildlife corridor," and "wildlife crossing" to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this section, these terms are defined as follows:

Travel route: A landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relative direct link between target habitat areas.

Wildlife corridor: A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife crossing: A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are man-made and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often "choke points" along a movement corridor.

Existing developed areas in the Town of Mammoth Lakes occur to the north, east, south, and west of the project site. A small area of open space within USFS land occurs to the northwest of the project site; however this area is almost entirely surrounded by development, and access to additional open space areas is only provided via a small linear strip of land along Chair 15. For this reason, the project site does not serve as a component of a significant regional wildlife movement corridor per se, nor does it serve as a linkage between two or more larger habitat areas.

Movement on a smaller or "local" scale likely occurs within the surrounding vicinity to the northwest as well as within the project site itself. The project site contains habitat that likely supports a few common species of invertebrates, amphibians, reptiles, birds, and mammals. The home range and average dispersal distance of many of these species may be entirely contained within the project site and immediate vicinity. Populations of animals such as insects, amphibians, reptiles, small mammals, and a few bird species may find all their resource requirements within the project site and its immediate vicinity. Occasionally, individuals expanding their home range or dispersing from their parental range will attempt to move outside of the project site. Local movement by small and medium-sized mammals such as California ground squirrel (*Spermophilus beecheyi*), mountain pocket gopher (*Thomomys monticola*), deer mouse (*Peromyscus maniculatus*), and long-tailed weasel (*Mustela frenata*) may occur within the open space portion of the project site and the adjacent open space area.

f. Critical Habitat

The project site does not fall within the Critical Habitat boundaries as designated by the USFWS for any threatened or endangered plant or wildlife species.

g. Sensitive Biological Resources

Special status, or sensitive, biological resources include declining habitats as well as species that have been afforded special recognition by Federal, State, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise sensitive, principally due to the species' declining or limited range, usually resulting from habitat loss. Watch lists of such resources are maintained by the CDFG, the USFWS, and groups such as the California Native Plant Society (CNPS).

(1) Sensitive Resource Classification

(a) Federal Protection and Classifications

A federally endangered species is a species of invertebrate, plant, or wildlife formally listed by the USFWS under the ESA as facing extinction throughout all or a significant portion of its geographic range. A federally threatened species is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. "Take" of a Federally endangered or threatened species or, in some cases, its habitat is prohibited by Federal law without a special permit. The term "take," under the ESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Harm is defined by the USFWS to encompass "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

A federal species of concern is an informal term that refers to a species that the USFWS believes might be declining and in need of concentrated conservation actions to prevent decline. These species receive no legal protection, and the use of the term does not mean that they will eventually be proposed for listing. The federal species of concern status has not been maintained on a statewide basis, so this designation has been removed from CDFG's "Special Animals" list. Some USFWS field offices (e.g., Sacramento) continue to maintain lists of federal species of concern.

The National Forest Management Act (NFMA) of 1976 and its implementing regulations require the Forest Service to ensure a diversity of animal and plant communities and maintain viable populations of existing native species as part of their multiple use mandate. The USDA Forest Service sensitive species program is a proactive approach to conserving species, to ensure the continued existence of viable, well-distributed populations, and to maintain biodiversity of National Forest Service lands (USDA Forest Service 2004).

The USDA Forest Service defines sensitive species as those animal and plant species identified by a regional forester for which population viability is a concern. This may be a result of significant current or predicted downward trends in habitat that would reduce a species' existing distribution or significant current or predicted downward trends in density or population numbers (CDFG 2006, Special Animals List). The USDA Forest Service, Regional Forester's, Pacific Southwest Region, has published a list of sensitive animal and plant species that is organized according to the forest in which the species occurs.

(b) State of California Protection and Classifications

The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy; a threatened species is one present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management; and a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. The designation "rare species" applies only to California native plants. State threatened and endangered species include both plants and wildlife but do not include invertebrates and are legally protected against "take" as this term is defined in the California Endangered Species Act (California Fish & Game Code, Section 2050 et seq.).

Species of special concern is an informal designation used by the CDFG for some declining wildlife species that are not officially listed as endangered, threatened, or rare. This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFG.

Species that are California fully protected include those protected by special legislation for various reasons, such as the white-tailed kite (*Elanus leucurus*).

(c) California Native Plant Society

The CNPS is a statewide resource conservation organization that has developed an inventory of California's special status plant species (CNPS 2001). This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory consists of four lists. CNPS List 1A plant species are presumed extinct in California because they have not been seen in the wild for many years. List 1B plants are considered as rare, threatened, or endangered throughout their range. List 2 plant species are considered rare, threatened, or endangered in California, but more common in other states. Plant species on Lists 1A, 1B, and 2 generally meet the CDFG criteria for endangered, threatened, or rare listing. Plant species for which CNPS requires additional information in order to properly evaluate their status are included on List 3. List 4 plant species are those of limited distribution

in California whose susceptibility to threat is considered low at this time, or for which more survey data must be acquired within the State to adequately assess whether the species is rare in California.

The following sections indicate the habitats, as well as plant and animal species, present or potentially present on the site that have been afforded special recognition. Sources used to determine the potential occurrence of special status resources in the vicinity of the site include USFWS (USFWS 1997), CDFG (CDFG 2005, 2003), CNPS (CNPS 2001), and California Natural Diversity Data Base (CNDDB 2005).

(2) Sensitive Plant Communities

The site supports two plant communities considered sensitive by the CDFG's CNDDB due to their scarcity and/or because they support State and/or Federal listed endangered, threatened, or rare vascular plants and animals. These communities are considered highest-inventory priority communities by the CDFG, indicating that they are declining in acreage throughout their range due to land use changes. These communities are described previously and include aspen series and narrow-leaf willow series (scrub).

(3) Sensitive Plant Species

Sensitive plants include those listed, or candidates for listing, by the USFWS and CDFG, and species considered sensitive by the CNPS (particularly Lists 1A, 1B, and 2). Several sensitive plant species were reported in the CNDDB from the vicinity, and one was determined to be potentially present through the literature review. A discussion of each sensitive plant species observed, as well as those potentially present within the project site, is presented in Table 47, *Sensitive Plant Species*, on page 247.

A few plant species listed as sensitive by the USDA Forest Service (Inyo National Forest) may occur within the general bioregional location of the project site; however, the majority of these species are not expected to occur within the project site due to a lack of suitable habitat and/or restricted elevation range. These species are also included in Table 47, *Sensitive Plant Species*.

In addition, several plant species listed as sensitive by the USDA Forest Service (Inyo National Forest) are not expected to occur within the project site due to a restricted bioregional distribution (i.e., only occur in desert mountains or desert floristic province); therefore, they have not been included in Table 47, *Sensitive Plant Species*.

Table 47

Sensitive Plant Species

VASCULAR PLANTS									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
BRYOPHYTES									
Orthotrichaceae									
Orthotrichum spjutii	orthotrichum	N/A (moss)	NONE	NONE	1B	FS: SENSITIVE	Lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest on granitic rock. Elevations from 2100 to 2400 meters (m).	Kern and Mono Cos., CA. Known only from near Sonora Pass.	NE

GYMNOSPERMS									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Ophioglossaceae	**Adder's Tongue Family**								
Botrychium ascendens	upswept moonwort	July-Aug.	NONE	NONE	2		Lower montane coniferous forest on mesic soil. Elevations from 1500 to 1830 m.	Known in California only from two occurrences: near Jonesville on the Butte and Tehama County border, and south of Fallen Leaf Lake, El Dorado County. Butte, El Dorado, Tehama Cos., CA; ID, NV, OR, WA, and WY.	NE
Botrychium crenulaturm	Scalloped moonwort	June-Jul.	NONE	NONE	2	FS: SENSITIVE	Bogs and fens, lower montane coniferous forest, meadows and	Butte, Colusa, Los Angeles, Mono, San Bernardino, Tehama,	NE

Table 47 (Continued)

Sensitive Plant Species

GYMNOSPERMS									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
							seeps, marshes and swamps. Elevations from 1500 to 3280 m.	and Tulare Cos., CA; AZ, ID, NV, OR, UT, WA, and WY.	
Botrychium lineare	slender moonwort	Unknown	FC	NONE	1B	FS: SENSITIVE	Upper montane coniferous forest. Elevation 2600 m.	Known in California only from one small occurrence near Piute Pass. Inyo Co.	NE
Botrychium minganense	mingan moonwort	July-Aug.	NONE	NONE	2	FS: SENSITIVE	Lower montane coniferous forest on mesic soils. Elevations from 1500 to 1830 m.	Butte, Fresno, and Tehama Cos., CA; AZ, ID, NV, OR, UT, and WA.	NE

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Asteraceae	**Sunflower Family**								
Ericameria gilmanii	Gilman's goldenbush	Aug.-Sept.	NONE	NONE	1B	FS: SENSITIVE	Subalpine coniferous forest, and upper montane coniferous forest on carbonate or granitic, rocky soil. Elevations from 2100 to 3400 m.	Inyo and Kern Cos., CA. Inyo, White, and desert mountains.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Erigeron aequifolius	Hall's fleabane	July-Aug.	NONE	NONE	1B	FS: SENSITIVE	Broadleaved upland forest, lower montane coniferous forest, pinyon and juniper woodland, and upper montane coniferous forest on rocky, granitic soil. Elevations from 1500 to 2440 m.	Fresno, Kern, and Tulare Cos., CA. Southern high Sierra Nevada floristic province.	NE
Erigeron uncialis var. uncialis	lone fleabane	June-July	NONE	NONE	2	FS: SENSITIVE	Great Basin scrub, subalpine coniferous forest on carbonate soils. Elevations from 2100 to 2900 m.	Inyo, San Bernardino, Cos., CA; NV; White, Inyo, and desert mountains.	NE
Hulsea brevifolia	short-leaved hulsea	May-Aug.	NONE	NONE	1B		Upper montane coniferous forest on granitic or volcanic (pumice) soil of forest openings and road cuts	Fresno, Madera, Mariposa, Tulare, Tuolumne Cos., CA.	NE
Boraginaceae	**Borage Family**								
Cryptantha roosiorum	bristlecone cryptantha	June-July	NONE	SR	1B	FS: SENSITIVE	Subalpine coniferous forest on rocky carbonate soils. Elevations from 2440 to 3230 m.	White and Inyo Mountains. Inyo County, CA.	NE
Brassicaceae	**Mustard Family**								
Arabis bodiensis	Bodie Hills rock cress	June-Aug.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, Great Basin scrub, pinyon and juniper woodland. Elevations from 2195-3530 m.	Great Basin floristic province, White and Inyo Mountains. Fresno, Inyo, Mono, and Tulare Cos., CA; NV	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Arabis pinzlae	Pinzl's rock cress	July	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, subalpine coniferous forest on scree or sandy soils. Elevations 3000 to 3350 m.	Great Basin floristic province, White and Inyo Mountains. Mono Co., CA; NV.	NE
Arabis tiehmii	Carson Range rockcress	July-Aug.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field on granitic soil. Elevation from 2970 to 3590 m.	Mono County, CA; NV.	NE
Draba asterophora var. *asterophora*	Lake Tahoe draba	July-Aug.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, subalpine coniferous forest. Elevations from 2500 to 3505 m.	Alpine, El Dorado, Mono, Tuolumne Cos., CA; NV.	NE
Draba breweri var. *cana*	hoary draba	July	NONE	NONE	2		Alpine boulder and rock field, meadows, subalpine coniferous forest. Elevations from 3000 to 3505 m.	In California, known only from two occurrences near Lake Genevieve and Wheeler Peak.	NE
Draba incrassate	Sweetwater Mountains draba	July-Aug.	NONE	NONE	1B		Alpine boulder and rock field; endemic to the rhyolite substrates of the Sweetwater Mountains on loose, steep, talus slopes. Elevations from 2500 to 3500 m.	Mono County, CA. Sweetwater Mountains.	NE
Draba lonchocarpa var. *lonchocarpa*	spear-fruited draba	June-Jul.	NONE	NONE	2		Alpine boulder and rock fields on limestone scree. Elevations from 3000 to 3295 m.	Inyo and Mono Cos., CA; ID, NV, OR, UT, WA, and WY.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Draba monoensis	White Mountains draba	August	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, meadows and seeps. Elevations from 3000 to 3960 m.	Known only from the White Mountains. Mono Co., CA.	NE
Draba praealta	subalpine draba	July-Aug.	NONE	NONE	2		Meadow and seeps on mesic soils. Elevations from 2500 to 3415 m.	Fresno, Inyo, Mono, and Tuolumne Cos., CA; NV, OR, WA, and WY.	NE
Draba sharsmithii	Mountain Whitney draba	July-Aug.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, subalpine coniferous forest. Elevations from 3355 to 3960 m.	Fresno, Inyo, and Tulare Cos. Southern high Sierra Nevada floristic province.	NE
Polyctenium williamsiae	William's combleaf	Mar.-July	NONE	NONE	1B	FS: SENSITIVE	Marshes and swamps (alkali), playas, vernal pools. Elevations from 1350 to 2700 m.	Lassen and Mono Cos., CA; NV, OR.	NE
Streptanthus oliganthus	Masonic Mountain jewelflower	June-July	NONE	NONE	1B	FS: SENSITIVE	Pinyon and juniper woodland on volcanic or granitic, rocky soils. Elevations from 1980 to 3050 m.	Inyo and Mono Cos., CA; NV. White and Inyo Mountains.	NE
Crassulaceae	**Stonecrop Family**								
Sedum pinetorum	Pine City sedum	July	NONE	NONE	3		Habitat known. Elevation 2650 m.	Known only from type collection from deserted Pine City above Mammoth.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Fabaceae	**Pea Family**								
Astragalus johannis-howellii	Long Valley milk vetch	June-Aug.	NONE	SR	1B		Great Basin scrub on sandy loam soils. Elevation from 2040 to 2530 m.	Mono Co., CA; NV. Occurs northeast of Whitmore Hot Springs in the vicinity of Hot Creek gorge.	NE
Astragalus lemmonii	Lemmon's milk-vetch	May-Aug.	NONE	NONE	1B		Great Basin scrub, meadows and seeps, marshes and swamps within lake shores. Elevations from 1280 to 2200m.	Lassen, Mono, Modoc, Plumas, and Sierra Cos. CA; NV, OR. Occurs at Hot Creek Fish Hatchery.	NE
Astragalus lentiginosus var. *kernensis*	Kern milkvetch	June-July	NONE	NONE	1B	FS: SENSITIVE	Meadows and seeps, subalpine coniferous forest on sandy soil. Elevations from 2350 m. to 2750 m.	Inyo and Tulare Cos., CA; NV. Southern high Sierra Nevada Floristic Province.	NE
Astragalus monoensis var. *monoensis*	Mono milk-vetch	June-Aug.	NONE	SR	1B		Great Basin scrub and upper montane coniferous forest on pumice flats with sparse vegetative cover; Elevations from 2110 to 3355 m.	Mono County	NE
Astragalus monoensis var. *ravenii*	Raven's milk-vetch	July-Sept.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, upper montane coniferous forest on gravelly soil. Elevations from 3355 to 3460 m.	Fresno, Inyo, and Mono Cos., CA. Great Basin floristic province.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Lupinus duranii	Mono Lake lupine	May-Aug.	NONE	NONE	1B		Great Basin scrub, subalpine coniferous forest, and upper montane coniferous forest on pumice sand flats and coarse barren soils of volcanic origin. Elevations from 2000 to 3000m.	Mono County, CA.	NE
Lupinus lepidus var. *culbertsonii*	Hockett Meadows lupine	July-Aug.	NONE	NONE	1B		Meadow and seeps, upper montane coniferous forest on mesic, rocky soil. Elevations from 2440 to 3000 m.	Fresno, Mono, and Tulare Cos., CA. Occurs in Convict Lakes Basin.	NE
Lupinus padre-crowleyi	Father Crowley's lupine	July-Aug.	NONE	SR	1B		Great Basin scrub, riparian scrub, upper montane coniferous forest on decomposed granite. Elevations from 2500 to 4000 m.	Inyo, Mono, and Tulare Cos., CA. Southern high Sierra Nevada floristic province. Inyo and White Mountains.	NE
Hydrophyllaceae	**Waterleaf Family**								
Phacelia monoensis	Mono County phacelia	May-July	NONE	NONE	1B	FS: SENSITIVE	Great basin scrub, pinyon and juniper woodland on clay soils, often along roadsides. Elevations from 1900 to 2900 m.	Mono Co., CA; NV	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Phacelia novenmillensis	Nine-Mile Canyon phacelia	May-June	NONE	NONE	1B	FS: SENSITIVE	Broadleaved upland forest, cismontane woodland, pinyon and juniper woodland, upper montane coniferous forest on sandy or gravelly soil. Elevations from 1645 to 2640 m.	Inyo, Kern, and Tulare Cos., CA. Southern high Sierra Nevada and Mojave floristic provinces.	NE
Lamiaceae	**Mint Family**								
Monardella beneolens	sweet-smelling monardella	July-Sept.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest on granitic soil. Elevations from 2500 to 3500 m.	Inyo, Kern, and Tulare Cos. Southern high Sierra Nevada floristic province.	NE
Nyctaginaceae	**Four O'Clock Family**								
Abronia alpina	Ramshaw Meadows abronia	July-Aug.	FC	NONE	4	FS: SENSITIVE	Meadow and seeps on granitic, gravelly margins. Elevations from 2400 to 2700 m.	Known from only two extant occurrences at Ramshaw Meadows and Temleton Meadows. Tulare County, CA.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Abronia nana ssp. *Covillei*	Coville's dwarf Abronia	May-Aug.	NONE	NONE	4	FS: SENSITIVE	Great Basin scrub, Joshua tree woodland, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest on sandy, carbonate soils. Elevations from 1600 to 3100 m.	Desert Mountains. Inyo, Mono, and San Bernardino Cos., CA; NV.	NE
Onagraceae	**Primrose Family**								
Epilobium howellii	subalpine fireweed	July-Aug.	NONE	NONE	1B		Meadow and seeps, subalpine coniferous forest on mesic soil, mossy seeps. Elevations from 1970 to 2700 m.	Fresno, Mono, and Sierra Cos., CA.	NE
Polemoniaceae	**Phlox Family**								
Polemonium chartaceum	Mason's sky pilot	June-Aug.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, subalpine coniferous forest on rocky, serpentine, granitic, or volcanic soil. Elevations from 1800 to 4200 m.	Mono, Siskiyou, and Trinity Cos., CA; NV; Inyo and White Mountains.	NE
Polygonaceae	**Buckwheat Family**								
Dedeckera eurekensis	July gold	June-Aug.	NONE	SR	1B	FS: SENSITIVE	Mojavean desert scrub on carbonate soil. Elevations from 1220 to 2200 m.	White, Inyo, and desert mountains. Inyo and Mono Cos., CA.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Eriogonum wrightii var. olanchense	Olancha Peak buckwheat	July-Sept.	NONE	NONE	1B	FS: SENSITIVE	Alpine boulder and rock field, subalpine coniferous forest on gravelly or rocky soils. Elevations from 3260 to 3535 m.	Known from only two occurrences on Olancha Peak. Tulare County, CA.	NE
Rosaceae	**Rose Family**								
Horkelia hispidula	White Mountains horkelia	June-Aug.	NONE	NONE	1B	FS: SENSITIVE	Alpine dwarf scrub, Great Basin scrub, subalpine coniferous forest. Elevations from 3000 to 3400 m.	Inyo and White Mountains. Inyo and Mono Cos., CA.	NE
Ivesia kingii var. *kingii*	alkali ivesia	June-Aug.	NONE	NONE	1B		Great Basin scrub, meadows and seeps, playas, on mesic, alkaline, clay soils. Elevations from 1200 to 2130 m.	Inyo and Mono Cos., CA; NV and UT.	NE
Salicaceae	**Willow Family**								
Salix brachycarpa ssp. *brachycarpa*	short-fruited willow	June-July	NONE	NONE	2		Alpine dwarf scrub, meadows and seeps, and subalpine coniferous forest; edges of lakes and in wet meadows on limestone, marble, and metamorphic substrates. Elevations from 3150 to 3500 m.	Mono Co. CA; ID, NM, OR, and WA.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (DICOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Scrophulariaceae	**Figwort Family**								
Pedicularis crenulata	scalloped-leaved lousewort	June-July	NONE	NONE	2		Meadows and seeps in mesic soils. Elevations from 2100 to 2300 m.	Mono Co., CA; NV, and WY. Occurs at Sierra Nevada Aquatic Research Lab along the north side of Convict Creek, approx. 1 mile west of Hwy. 395.	NE
Penstemon papillatus	Inyo beardtongue	June-July	NONE	NONE	4	FS: SENSITIVE	Pinyon and juniper woodland, subalpine coniferous forest on rocky, granitic soil. Elevations from 2000 to 2700 m.	Inyo, Kern, and Mono Cos.	P (USFS owned portion of project site); NE (Privately owned portion of project site)
Violaceae	**Violet Family**								
Viola pinetorum ssp. *grisea*	grey-leaved violet	Apr.-July	NONE	NONE	1B	FS: SENSITIVE	Meadows and seeps, subalpine coniferous forest, upper montane coniferous forest. Elevations from 1500 to 3400 m.	Fresno, Kern, San Bernardino, and Tulare Cos. Southern high Sierra Nevada floristic province.	NE

Table 47 (Continued)

Sensitive Plant Species

ANGIOSPERMS (MONOCOTYLEDONS)									
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Cyperaceae	**Sedge Family**								
Carex tiogana	Tioga sedge	July-Aug.	NONE	NONE	1B	FS: SENSITIVE	Meadows and seeps in mesic soils, lake margins. Elevations from 3100 to 3300 m.	Mono County, CA.	NE
Kobresia bellardii	seep kobresia	August	NONE	NONE	2		Alpine boulder and rock field, meadows, subalpine coniferous forest in mesic soils; can occur on limestone substrate. Elevations from 2955 to 3230 m.	Mono Co., CA; OR, and ID.	NE
Poaceae	**Grass Family**								
Elymus scribneri	Scribner's wheat grass	July-Aug.	NONE	NONE	2		Alpine boulder and rock field on rocky slopes. Elevations from 2900 to 4200 m.	Mono Co., CA and NV.	NE
Potamogetonaceae	**Pondweed Family**								
Potamogeton robbinsii	Robbins's pondweed	July-Aug.	NONE	NONE	2		Marshes and swamps, deep water lakes. Elevations from 1520 to 3500m.	Alpine, Inyo, Mono, Lassen, Madera, Nevada, Sierra, Siskiyou, and Tuolumne Cos., CA; ID, OR, UT, and WA.	NE

Table 47 (Continued)

Sensitive Plant Species

Key to Species Listing Status Codes

FE	*Federally Listed as Endangered*	FC	*Federal Candidate Species*	SCT	*State Candidate for Threatened*
FT	*Federally Listed as Threatened*	SE	*State Listed as Endangered*	SFP	*State Fully Protected*
FPE	*Federally Proposed as Endangered*	ST	*State Listed as Threatened*	SR	*State Rare*
FPT	*Federally Proposed as Threatened*	SCE	*State Candidate for Endangered*	CSC	*California Special Concern Species*
FPD	*Federally Proposed for Delisting*	FS: SENSITIVE	*Inyo National Forest Sensitive Species*		

California Native Plant Society (CNPS)

List 1A: Presumed extinct in California.
List 1B: Rare, threatened, or endangered throughout their range.
List 2: Rare, threatened, or endangered in California, but more common in other states.
List 3: Plant species for which additional information is needed before rarity can be determined.
List 4: Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat.

Source: PCR Services Corporation, 2006

The Botanical Survey of the Juniper Ridge Revised Project Area, Mammoth Lakes, Mono County, California, prepared by Mark Bagley, dated September, 1994, noted that no federal or state listed, proposed or candidate, threatened or endangered plant species were observed within the Juniper Ridge Revised Project Area. The current project site encompasses a small portion within the Juniper Ridge Revised Project Area. In addition, this report stated that "no other plant species of concern were found to occur within the survey area, none have been previously reported, and none would be expected. Pumice flat and meadow habitats which are known to support plant species of concern in the region do not occur on the Site." PCR biologist did not observe any sensitive plant species during the site visit conducted in September, 2005. No focused surveys for sensitive plants were conducted by PCR biologists during the 2005 site visit.

Many sensitive plant species are found exclusively within specific soil types (i.e. pumous soils). A review of the soil survey for the Benton-Owens Valley Area, California, Parts of Inyo and Mono Counties (USDA 2002) determined that the project site supports the following soil type: Chesaw family, 0 to 5 percent slopes. The Chesaw Series consists of deep, somewhat excessively drained soils formed in glacial outwash on terraces, terrace escarpments, and eskers. For this soil type, the average precipitation is approximately 17 inches, mean annual temperature is approximately 43 degrees F, and the growing season is 100 to 120 days.

(4) Sensitive Wildlife Species

Sensitive wildlife species include those species listed as endangered or threatened under FESA or CESA, candidates for listing by USFWS or CDFG, and species of special concern to CDFG. In addition, species considered sensitive by the USFS (Inyo National Forest) have also been included and analyzed in this document to provide a comprehensive list of species.

A number of sensitive wildlife species were reported in the CNDDB as occurring in the vicinity of the project site. These species are included in Table 48, *Sensitive Wildlife Species*, on page 261, which provides a summary of the sensitive wildlife species occurring or potentially occurring within the project site based upon their known geographic ranges, distributions, and preferred habitats. The majority of these species are not expected to occur on-site due to a lack of suitable habitat or lack of tolerance for human disturbance.

In addition, several wildlife species listed as sensitive by the USFS (Inyo National Forest) may occur within the general bioregional location of the project site; however, none of these species are expected to occur within the project site due to a lack of suitable habitat. These species are also included in Table 48, *Sensitive Wildlife Species*.

Table 48

Sensitive Wildlife Species

INVERTEBRATES							
Scientific Name	**Scientific Name**	**Scientific Name**	**Scientific Name**	**Scientific Name**	**Scientific Name**	**Scientific Name**	**Scientific Name**
GASTROPODA	**SNAILS AND SLUGS**						
Hydrobiidae	**Aquatic Snails**						
Pyrgulopsis owensensis	Owens Valley springsnail	NONE	NONE	FS: SENSITIVE	Freshwater.	Crowley Lake	NE
Pyrgulopsis wongi	Wong's springsnail	NONE	NONE	FS: SENSITIVE	Freshwater.	Crowley Lake	NE

VERTEBRATES							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
FISHES							
Salmonidae	**Trout and Salmon**						
Oncorhynchus clarkii seleniris	Paiute cutthroat troat	FT	NONE		Cool, well-oxygnated waters. Cannot tolerate the presence of other salmonids, required clean gravel for spawning.	Eastern Sierra Nevada and northwestern coastal California.	NE
Cyprinidae	**Minnows and Carp**						
Oncorhynchus mykiss aguabonita	Volcano Creek golden trout	NONE	CSC	FS: SENSITIVE	Shallow, slow moving streams. Pools, runs, and riffles within the following habitat types: undercut banks, willows, bare banks, collapsed banks, open channel, aquatic vegetation, sedge, boulders, or rootwads.	Kern Plateau, southern Sierra Nevada.	NE
Cyprinidae	**Minnows and Carp**						
Rhinichthys osculus ssp. 2	Owens speckled dace	NONE	CSC		Small streams, spring systems, irrigation ditches.	Owens River and tributaries.	NE

Table 48 (Continued)

Sensitive Wildlife Species

VERTEBRATES							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Gila bicolor snyderi	Owens tui chub	FE	SE		Found in shallow water associated with submerged objects or beds of aquatic vegetation, or in the quiet waters of sluggish rivers. Clear, clean water with adequate cover and adequate insect food.	Owens River and tributaries.	NE
Catostomidae	**Suckers**						
Catostomus fumeiventris	Owens sucker	NONE	CSC		Silty to rocky pools and creek runs. Most abundant in sections of the lower Owens River and tributaries with long runs and few riffles, over substrates of mostly fine material. Adults can thrive in reservoirs, but need gravelly riffles in tributary streams for spawning.	Sierra Nevadas and coastal south-central California; Owens River drainage.	NE
AMPHIBIANS							
Plethodontidae	**Lungless Salamanders**						
Batrachoseps campi	Inyo Mountains salamander	NONE	CSC	FS: SENSITIVE	Found in isolated springs and stream areas chiefly below the pinon-juniper belt. Found along watercourses vegetation with willow and wild rose. Found under stones and in crevices in damp places near water. Surrounding slopes are arid and vegetated with sagebrush, buckwheat, rabbitbrush, and cactus.	Inyo Mountains.	NE

Table 48 (Continued)

Sensitive Wildlife Species

VERTEBRATES							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Batrachoseps robustus	Kern Plateau salamander	NONE	NONE	FS: SENSITIVE	Frequents habitats mainly of Jeffrey pine and red fir in the northern and eastern humid parts of its range and lodgepole, pinon pine, rabbitbrush, sagebrush, black oak and canyon oak in drier parts of its range. Found under rocks, bark fragments, logs, and within and under wet logs, especially in spring and seep areas near outflow streams.	Southeast Sierra Nevada on Kern Plateau, Olancha Peak to Nine Mile Canyon on the eastern slope of the Sierra Nevadas, and the Scodie Mountains, Kern County, CA.	NE
Bufonidae	**True Toads**						
Bufo canorus	Yosemite toad	FC	NONE	FS: SENSITIVE	Occurs in the vicinity of wet meadows in the central high Sierra Nevadas. Primarily occurs in montane wet meadows; also in seasonal ponds associated with lodgepole pine and subalpine coniferous forests. Breeds in shallow edges of snowmelt pools and ponds or along edges of lakes or slow-moving streams.	Central high Sierra Nevadas, CA.	NE
Ranidae	**True Frogs**						
Rana muscosa	Mountain yellow-legged frog	FC (SIERRA NEVADA)	CSC	FS: SENSITIVE	Inhabits mid to upper-elevation perennial streams, often in locations with bedrock pools. Always encountered within a few feet of water.	Sierra Nevada and southern California mountains.	NE

Table 48 (Continued)

Sensitive Wildlife Species

VERTEBRATES							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Rana pipens	Northern leopard frog	NONE	CSC	FS: SENSITIVE	Found in a variety of habitats including grasslands, brushland, woodland, and forest, ranging high into the mountains. Frequents springs, slow moving streams, slowly flowing streams, marshes, bogs, ponds, canals, and reservoirs, usually permanent water with grass, cattails, or other aquatic vegetation. May forage far from water in damp meadows.	North and central U.S., Canada, in California near the Oregon border.	NE
REPTILES							
Anguidae	**Alligator Lizards**						
Elgaris panamintina	Panamint alligator lizard	NONE	CSC	FS: SENSITIVE	Ranges from creosote bush scrub desert and Joshua tree zone into the lower edge of the pinon juniper belt. Found beneath thickets of willow and wild grape near water or in drier habitats	Desert mountains of Inyo and Mono County.	NE

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Accipitridae	**Hawks, Kites, Harriers, and Eagles**						
Accipiter gentilis	northern goshawk	NONE	CSC	FS: SENSITIVE	Nests within mature or old-growth coniferous forests. Usually nests on north slopes, near water. Typical nest trees include red fir, lodgepole pine, Jeffrey pine, and aspens.	Through U.S. and Canada.	NE

Table 48 (Continued)

Sensitive Wildlife Species

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Accipiter striatus	sharp-shinned hawk	NONE	CSC		Woodlands; forages over chaparral and other scrublands; prefers riparian habitats and north-facing slopes, with plucking perch sites.	Entire State of CA, although only winters in most of southern California.	NE
Accipiter cooperii	Cooper's hawk	NONE	CSC		Open woodlands especially riparian woodland.	Entire State of CA.	NE
Aquila chrysaetos	golden eagle	NONE	CSC, SFP		Mountains, deserts, and open country; prefer to forage over grasslands, deserts, savannahs and early successional stages of forest and shrub habitats.	Throughout U.S. and Canada.	NE
Buteo swainsoni	Swainson's hawk	NONE	CSC	FS: SENSITIVE	Plains, ranges, open hills, sparse trees.	Through U.S. and Canada.	NE
Circus cyaneus	Northern harrier	NONE	CSC		Coastal salt marshes, freshwater marshes, grasslands, and agricultural fields; occasionally forages over open desert and brushlands.	U.S. and Canada	NE
Haliaeetus leucocephalus	bald eagle	SE	FT, SFP		Found near water.	Throughout U.S. and Canada	NE
Falconidae	**Falcons**						
Falco peregrinus anatum	American peregrine falcon	FD	SE, SFP		Open country, cliffs (mountains to coasts).	Very uncommon breeding resident along coast and Sierra Nevada and uncommon migrant along coat and W. Sierra Nevada. Winters inland in central valley.	NE

Table 48 (Continued)

Sensitive Wildlife Species

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Falco mexicanus	Prairie falcon	NONE	CSC		Grasslands, savannahs, rangelands, agricultural fields, and desert scrub; often uses sheltered cliff ledges for cover.	Western United States.	NE
Phasianidae	**Grouse and Ptarmigan**						
Centrocerus urophasianus	greater sage-grouse	NONE	CSC	FS: SENSITIVE	Dry sagebrush plains.	Northwestern United States; Sierra Nevada.	NE
Cuculidae	**Cuckoos and Relatives**						
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FC	SE	FS: SENSITIVE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods with lower story of blackberry, nettles, or wild grape.	Western United States.	NE
Strigidae	**Owls**						
Strix nebulosa	great gray owl	NONE	SE	FS: SENSITIVE	Nests in mixed conifer or red fir forests in or on the edge of meadows; requires large diameter snags in a forest with high canopy closure which provides a cool sub-canopy microclimate.	Sierra Nevadas, CA; Alaska, Canada, and northern United States.	NE
Strix occidentalis occidentalis	California spotted owl	NONE	CSC	FS: SENSITIVE	Typically in dense, multi-layered evergreen forest that includes a diversity of tree species including large trees. Most often on lower, north-facing slopes of canyons, usually within 0.3 km of water.	Western United States.	NE

Table 48 (Continued)

Sensitive Wildlife Species

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Tyrannidae	**Tyrant Flycatchers**						
Empidonax traillii	willow flycatcher	NONE	NONE	FS: SENSITIVE	Low brushy vegetation in wet areas, especially riparian willow thickets.	Throughout the United States.	NE
MAMMALS							
Soricidae	**Shrews**						
Sorex lyelli	Mount Lyell shrew	NONE	CSC		High elevation riparian areas in the southern Sierra Nevada. Requires moist soil, lives in grass or under willows; uses logs, stumps, etc. for cover.	In the vicinity of Mount Lyell near Yosemite National Park, Sierra Nevadas.	NE
Vespertilionidae	**Mouse-eared Bats**						
Antrozous pallidus	pallid bat	NONE	CSC	FS: SENSITIVE	Nests in dry, rocky habitats/caves, crevices in rocks, arid habitats including deserts, chaparral, and scrublands.	Common in low elevations throughout California except for the high Sierra Nevada from Shasta to Kern Co. and the northwestern corner of the State of CA.	NE
Corynorhinus (Plecotus) townsendii townsendii	Townsend's western big-eared bat	NONE	CSC	FS: SENSITIVE	Found in all but sub-alpine and alpine habitats. Commonly occurs in mesic habitats characterized by coniferous and deciduous forests, but occupies a broad range of habitats. Maternity and hibernation colonies typically are in caves and mine tunnels.	Throughout CA.	NE

Table 48 (Continued)

Sensitive Wildlife Species

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Lasiurus blossevillii	Western red bat	NONE	NONE	FS: SENSITIVE	Prefers riparian habitat; Sonoran and transitional life zones in California. Young are born and perch among tree foliage.	Southern British Columbia in Canada, through much of the western United States, through Mexico and Central America, to Argentina and Chile in South America.	NE
Leporidae	**Rabbits and Hares**						
Lepus townsendii	western white-tailed jackrabbit	NONE	CSC		Sagebrush scrub, subalpine conifer forests and juniper woodlands, alpine dwarf shrub and perennial grassland. Prefers open areas with scattered shrubs and exposed flat-topped hills with open stands of trees and a brushy or herbaceous understory.	Eastern Sierra Nevadas, northeastern California.	P (USFS owned portion of project site); NE (Privately owned portion of project site)
Aplodontidae	**Mountain Beavers**						
Aplodontia rufa californica	Sierra Nevada mountain beaver	NONE	CSC		Mountain streams with dense, deciduous riparian vegetation.	Northwestern California and southern California mountains.	NE

Table 48 (Continued)

Sensitive Wildlife Species

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Mustelidae	**Weasels, Martins, and Allies**						
Gulo gulo	California wolverine	NONE	ST	FS: SENSITIVE	Found mainly in subalpine forest and alpine fellfields within alpine meadows, lodgepole forests, and red fir forests. Dens in caves, rock crevices, under fallen trees or tree roots, and in thickets. Needs water source – can travel long distances.	Sierra Nevadas and northwestern California.	NE
Martes americana	American marten	NONE	NONE	FS: SENSITIVE	Dense coniferous forest and lowland forest. May use rocky alpine areas. May occupy holes in dead or live trees or stumps, abandoned squirrel nests, rock piles, or burrows.	Sierra Nevadas, Klamath Ranges and north Coast Ranges.	NE
Martes pennanti pacifica	Pacific fisher	FC	NONE	FS: SENSITIVE	Intermediate to large-tree stages of coniferous forests and deciduous riparian areas with high percent canopy closure. Use cavities, snags, logs, and rocky areas for cover and dens sites; need large areas of mature, dense forest.	Sierra Nevadas, Klamath Ranges and north Coast Ranges	NE

Table 48 (Continued)

Sensitive Wildlife Species

BIRDS							
Scientific Name	**Common Name**	**Federal**	**State**	**Other**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Canidae	**Foxes, Wolves, & Coyotes**						
Vulpes vulpes necator	Sierra Nevada red fox	NONE	ST	FS: SENSITIVE	Found in a variety of habitats from wet meadows to forested areas; use dense vegetation and rocky areas for cover and den sites. Prefers forests interspersed with meadows or alpine fell-fields.	From Cascades to Sierra Nevada.	NE
Bovidae	**Sheep and Relatives**						
Ovis canadensis californiania	Sierra bighorn sheep	FE	SE, SFP	FS: SENSITIVE	Rocky, steep slopes and canyons with adjacent open areas; forages in meadows and brushlands.	High elevations of southern Sierra Nevada to Owens Valley.	NE

Key to Species Listing status Codes

FE	*Federally Listed as Endangered*	SE	*State Listed as Endangered*
FT	*Federally Listed as Threatened*	ST	*State Listed as Threatened*
FPE	*Federally Proposed as Endangered*	SCE	*State Candidate for Endangered*
FPT	*Federally Proposed as Threatened*	SCT	*State Candidate for Threatened*
FPD	*Federally Proposed for Delisting*	SFP	*State Fully Protected*
FC	*Federal Candidate Species*	CSC	*California Special Concern Species*

Source: PCR Services Corporation, 2006

The Biological Evaluation for Mammoth Mountain Ski Area Base VII Expansion Project, Inyo National Forest, dated March, 1998, noted that two species listed as sensitive for Region 5 of the USFS, northern goshawk (*Accipiter gentilis*) and American marten (*Martes americana*) potentially exist within or adjacent to the project boundaries. Northern goshawk nests are generally located in dense patches of timber stands, and no known nests are known to occur within the project boundaries. Although portions of the Mammoth Mountain Ski Area Base VII Expansion project site "provide marginal nesting and foraging habitat for the northern goshawk….no nests are known to occur within the project boundaries." The current project site comprises a small portion of the Mammoth Mountain Ski Area Base VII Expansion Project and is surrounded by development. Goshawks are not expected to nest or forage within the current project site. The American marten prefers dense (60-100% canopy closure), multi-storied coniferous forests with a high number of large snags and downed logs. Although the forested portion of the Mammoth Mountain Ski Area Base VII Expansion Project provided suitable habitat for this species, the current project site, given its proximity to development, small size, and lack of dense coniferous forest is not expected to support this species.

No sensitive wildlife species were observed within the project site during the site visit conducted by PCR in September 2005. No focused surveys for sensitive wildlife species were conducted by PCR biologists during the 2005 site visit. A discussion of the sensitive wildlife species potentially present within the project site is presented in Table 48, *Sensitive Wildlife Species.*

3.6.3 ENVIRONMENTAL CONSEQUENCES

a. CEQA Significance Criteria

Using guidelines from Appendix G of the California Environmental Quality Act (CEQA), a project may have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.

- 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.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.

In addition, Section 15065(a) of the *State CEQA Guidelines* establishes that a significant impact may occur if the project would:

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

The biological resources within the project site were evaluated on the basis of the above criteria in determining whether or not the proposed project will cause one or more significant impacts. The evaluation of whether an impact to biological resources would be significant considered the resource and how that resource fits into a regional or ecological context.

The definition of "significant," as applied for this assessment, considered both the local and regional status of each resource. Significant impacts are those that would diminish or result in the loss of an important biological resource, or those that would conflict with local, State, or Federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant because, although they would result in an adverse alteration of existing local conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

b. Methodology

Project-related impacts to biological resources take two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability.

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

The determination of impacts in this analysis is based on both the features of the proposed project and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Relevant project features (e.g., limits of grading) were provided by the project applicant. Much of this information was supplied in digital format and impacts were calculated using GIS technology in order to maximize the accuracy of the assessment.

The biological values of resources within, adjacent to, and outside the area to be affected by the project were determined by consideration of several factors. These included the overall size of habitats to be affected, the current level of disturbance of the habitats on the site, the site's surrounding environment and regional context, the on-site biological diversity and abundance, the presence of sensitive and special-status plant and wildlife species, the site's importance to regional populations of these species, and the degree to which on-site habitats are limited or restricted in distribution on a regional basis and, therefore, are considered sensitive in themselves. Whereas this assessment is comprehensive, the focus is on sensitive plant communities/habitats, resources that play an important role in the regional biological systems, and special-status species.

c. Environmental Consequences of the Proposed Action

Those impacts determined to be less than significant include impacts to biological resources that are relatively common or exist in a degraded or disturbed state rendering them less valuable as habitat or impacts that do not meet or exceed the significance thresholds defined previously. Those impacts determined to be significant are those that do meet the thresholds of significance defined above. Conclusions are based on both the features of the proposed project and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Specific considerations included the overall size of habitats to be affected, the site's previous land uses and disturbance history, the site's surrounding environment and regional context, the on-site biological diversity and abundance, the presence of sensitive and special-status plant and wildlife species, the site's importance to regional populations of these species, and the degree to which on-site habitats are limited or restricted in distribution on a regional basis and, therefore, are considered sensitive in themselves.

(1) Sensitive Plant Species

Privately owned Land

The sensitive plant species mentioned in Section 3.6.2,(9)(c), Sensitive Plant Species, Table 47, *Sensitive Plant Species*, may occur within the region but none are expected to occur within the Privately owned portion of the project site due to the lack of suitable habitat. As such, no impacts are expected to occur to these species, and the proposed project would not have a substantial adverse affect to special status species within the Privately owned portion of the project site.

USFS-Owned Land

One sensitive species, Inyo beardtongue (CNPS List 4), was not detected within the project site, but still retains a low potential to occur on-site within the USFS-owned portion of the project site. CNPS List 4 species are not considered rare for purposes of analysis under CEQA/NEPA; however the CNPS strongly recommends that impacts to List 4 species be addressed during the environmental review process. The List 4 status denotes that a species is of limited distribution or is infrequent throughout a broader area in California and its vulnerability or susceptibility to threat appears to be low; moreover, the designation denotes that more survey data is needed before a conclusion ought to be drawn regarding the species' limits in California. List 4 plants cannot be called "rare" from a statewide perspective; however, they are uncommon enough that they should be monitored regularly. Many CNPS List 4 plants are of local interest. Although these List 4 species may have a limited distribution in California, their susceptibility to threat is considered low, based on their List 4 status, and the existing data on these species does not support a conclusion that these species are rare.

As this species is not protected by Federal or State listings as threatened or endangered, any loss of individuals from the limited populations potentially present would not threaten the regional population. Therefore, removal of potential habitat represents an adverse, but less than significant impact to regional populations of this species.

No impacts are expected to occur to the other species mentioned in Section 3.6.2,(9)(c), Sensitive Plant Species, Table 47, *Sensitive Plant Species*, of this document due to a lack of suitable habitat within the USFS-owned portion of the project site. As such, the proposed project would not have a substantial adverse affect to special status species within the USFS-owned portion of the project site.

(2) Sensitive Wildlife Species

Privately owned Land

The sensitive wildlife species mentioned in Section 3.6.2,(9)(d), Sensitive Wildlife Species, Table 48, *Sensitive Wildlife Species*, may occur within the region but none are expected to occur within the project site due to the lack of suitable habitat. As such, no impacts are expected to occur to these species, and the proposed project would not have a substantial adverse affect to special status species within the Privately owned portion of the project site.

USFS-Owned Land

One sensitive wildlife species, western white-tailed jackrabbit (a California Species of Special Concern), has a potential to occur within the USFS-owned portion of the project site. Long- and short-term impacts may occur as a result of construction activities and development of a portion of the project site. This species is not protected by Federal or State listings as threatened or endangered. Project implementation would not threaten the regional populations; therefore, removal of its habitat represents a less than significant impact to regional populations of this species.

No impacts are expected to occur to the other species mentioned in Section 3.6.2,(9)(d), Sensitive Wildlife Species, Table 48, *Sensitive Wildlife Species,* of this document due to a lack of suitable habitat within the USFS-owned portion of the project site. As such, the proposed project would not have a substantial adverse affect to special status species within the USFS-owned portion of the project site.

(3) Plant Communities

Privately Owned Land

As shown in Table 49, *Impacts to Plant Communities Within the Privately Owned Portion of the Project Site*, on page 276 and Figure 19, *Impacts to Plant Communities Within the Project Site,* on page 277, project development would result in the loss of approximately 0.1 acre of aspen series, 0.2 acre of narrow-leaf willow scrub, 0.6 acre of ruderal/big sagebrush scrub, less than 0.1 acre (0.01 acre) of ponded areas, 0.8 acre of disturbed areas, and 2.8 acres of developed areas. All of the project site is being impacted.

These natural communities (except for aspen series and narrow-leaf willow scrub) are not considered sensitive plant communities according to the CNDDB. Therefore, impacts to these common plant communities are considered less than significant. Impacts to sensitive plant communities are address in Section 3.6.3,(c)(6), Sensitive Plant Communities.

Table 49

Impacts to Plant Communities Within the Privately Owned Portion of the Project Site

Vegetation Community	Acres
Native	
Aspen Series	0.1
Narrow-leaf Willow Series (Scrub)	0.2
Ruderal	
Ruderal/Big Sagebrush Scrub	0.6
Other	
Pond	<0.1
Disturbed	0.8
Developed	3.1
TOTAL	**4.8**

Source: PCR Services Corporation, 2006

USFS-Owned Land

As shown in Table 50, *Impacts to Plant Communities Within the USFS-Owned Portion of the Project Site*, on page 278 and Figure 2, project development would result in the loss of approximately 0.6 acre of big sagebrush scrub, 0.2 acre of Jeffrey pine forest, 1.3 acres of ruderal areas, less than 0.1 acre (0.03 acre) of ruderal/montane meadow, 0.1 acre of ponded areas, and 1.8 acres of developed areas. All of the project site is being impacted by the proposed project.

These natural communities are not considered sensitive plant communities according to the CNDDB. Therefore, impacts to these common plant communities are considered less than significant.

(4) Wildlife Movement

Privately Owned Land/USFS-Owned Land

Migratory wildlife corridors are discussed in detail in the Initial Study which is contained in Appendix A of this Draft EA/EIR. The Round Valley Herd of mule deer utilizes a migratory path south of the Town of Mammoth Lakes, through the Mammoth Lakes Basin, over Mammoth Pass into the Middle Fork of the San Joaquin River drainage. The project site is almost completely surrounded by development; therefore, does not provide an effective route for migratory species including the mule deer. As such, development of the proposed project would not have a significant adverse effect on any known or suspected wildlife movement corridors.

PCR

N

100 0 100 Feet

Source: Aerial (2003); PCR Services Corporation, 2006

Figure 19

Impacts to Plant Communities Within the Project Site

Table 50

Impacts to Plant Communities Within the USFS-Owned Portion of the Project Site

Vegetation Community	Acres
Native	
Big Sagebrush Scrub	0.6
Jeffrey Pine Forest	0.2
Ruderal	
Ruderal	1.3
Ruderal/Montane Meadow	<0.1
Other	
Pond	0.1
Developed	1.8
TOTAL	**4.0**

Source: PCR Services Corporation, 2006.

(5) Sensitive Plant Communities

Privately Owned Land

As shown in Table 49, *Impacts to Plant Communities Within the Privately Owned Portion of the Project Site* and Figure 19, project development would result in the loss of approximately 0.1 acre of aspen series and 0.2 acre of narrow-leaf willow scrub (series) within privately owned property, which are considered sensitive plant communities by the CNDDB and resource agencies.

Aspen series and narrow-leaf willow scrub (series) comprise 0.1 acre and 0.2 acre on-site, respectively and are located in a narrow band of otherwise disturbed habitat which is completely surrounded by paved roads. These plant communities are not expected to support sensitive plant or wildlife species and are not connected to habitat areas up or downstream. Therefore, impacts to sensitive plant communities would not have a substantial adverse effect on these communities and are considered less than significant.

USFS-Owned Land

The USFS-owned portion of the project site does not support any plant communities considered sensitive by the CDFG's CNDDB; therefore, no impacts to sensitive plant communities will occur as a result of the proposed project.

(6) Jurisdictional Features

Privately Owned Land/USFS-Owned Land

A jurisdictional delineation has not been conducted on site; however, no ACOE jurisdictional wetlands and "waters of the U.S." exist within the project site. It appears that wetlands occur within the two man-made detention basins in the southwestern portion of the project site and the man-made detention basin below Chair 15; however, these are isolated man-made features. Since these features are isolated and are located on naturally occurring uplands that lack natural wetland or water features and do not naturally support riparian or wetland vegetation, they would not be considered under the jurisdiction of the ACOE as "waters of the U.S." These features may be considered "waters of the State" and fall under the jurisdiction of the CDFG and RWQCB. A portion of the southernmost detention basin falls within the privately owned portion of the property, but the remainder of this basin as well as the northernmost basin falls within the USFS-owned portion (Lot 7). No impacts to these two detention basins are expected as a result of the proposed project. The three detention basins would not be impacted as a result of the proposed project; therefore, a jurisdictional delineation is not necessary.

One drainage feature which may be considered under the jurisdiction of the ACOE, RWQCB, and/or the CDFG occurs very close to the northwestern boundary of the project site within USFS-owned land. A mitigation measure is provided to require the installation of exclusionary fencing to ensure avoidance of this resource. In addition, the measure would require that a qualified monitor oversee the installation of the fencing and that the monitor conduct site inspections throughout the construction process to ensure the integrity of the exclusionary fencing. Additional details regarding impacts to water quality and drainage patterns on-site are provided in Section 3.10, Hydrology and Water Quality, of this document.

(7) Nesting Birds

(a) Privately Owned Land/USFS-Owned Land

The project site provides habitat for several native bird species within both the privately owned and USFS owned portions of the project site. Disturbance to nesting birds during the nesting season (approximately mid-February to the end of August) would be a violation of the Migratory Bird Treaty Act of 1918. Nests and eggs of these species are also protected under Fish and Game Code Section 3503. The project site has the potential to support nesting birds due to the presence of trees and shrubs. Therefore, since the removal of vegetation could result in a significant impact with regard to nesting birds, a mitigation measure is provided to ensure the protection of nesting birds if vegetation removal were to occur during the nesting season. With implementation of the mitigation measure, impacts related to nesting birds would be reduced to a level of less than significant.

(8) Jurisdictional Trees

(a) Privately Owned Land

Jurisdictional trees are discussed in detail in the Initial Study which is included in Appendix A of this document. The Town of Mammoth Lakes may warrant replacement of trees if impacted during construction or operation. According to the *Design Guidelines for the Town of Mammoth Lakes* (Section 5.0, Landscape and Public Space Guidelines, 5.1, Objective), each development application shall evaluate all existing trees on-site greater than six inches in diameter at shoulder height, and substantiate proposed removal to the Town. Project development will result in the removal of a few immature lodgepole and Jeffrey pine, and a small stand of quaking aspen which may be jurisdictional. Consistency with local policies ordinances would reduce such impacts to a less than significant level.

In addition, project development will result in the removal of a few arroyo willow shrubs adjacent to the stand of quaking aspen and a stand of narrow-leaf willow shrubs. The arroyo willow and narrow-leaf willow within the development footprint are better classified as shrubs due to their small stature; therefore, their removal will most likely not require a tree survey and preservation and replacement plan.

(b) USFS-Owned Land

Several mature Jeffrey pines, lodgepole pines, and arroyo willows are located within USFS land on-site. In addition, mature pines are located within developed areas surrounding the detention basins adjacent to Juniper Lodge. No tree removal immediately surrounding the detention basins is expected as a result of the proposed project; however, up to six mature tree removals are anticipated as part of the required backfill necessary to create a land bridge between the existing chair lift queuing area and the proposed western edge of the new skier plaza of Eagle Lodge. Trees within USFS land are not protected through any USFS regulations.

(9) Indirect Impacts

(a) Privately Owned Land/USFS-Owned Land

The potential for the proposed project to result in indirect impacts to biological resources as a result of construction activities and development of the site is evaluated with a focus on effects associated with drainage (increased urban run-off and pollutant concentration), lighting, noise, barriers, invasive species, introduced humans and pets, and hauling of material off-site. These areas with the potential to result in indirect effects on biological resources are each discussed below.

Drainage—In accordance with the National Pollutant Discharge Elimination System (NPDES) Program, the project would be required to prepare a SWPPP that would include construction related best management practices (BMPs), and the BMPs would ensure that storm water pollution is addressed through the operational life of the project through the incorporation of BMPs in the design of the development. Compliance with the SWPPP would result in a less than significant impact with regard to stormwater run-off. Additional details regarding impacts to water quality and drainage patterns on-site are provided in Section 3.10, Hydrology and Water Quality, of this document.

Lighting—Town Municipal Code Chapter 17.34, which was adopted in May 2003, regulates outdoor lighting and provides rules and regulations for outdoor lighting. This ordinance implements requirements to utilize the most effective design standards to reduce or eliminate glare, light trespass, and light pollution. These rules and regulations prevent nuisances caused by unnecessary light, protect the ability to view the night sky, phase out nonconforming fixtures, and promote energy conservation. This impact is considered less than significant with compliance with this municipal code.

Noise—Sources of urban noise (project construction, daily traffic) associated with the project would create a less than significant nuisance to surrounding wildlife resources due to the location of the project site almost entirely within existing development.

Invasives—According to the *Design Guidelines for the Town of Mammoth Lakes* (Section 5.0, Landscape and Public Space Guidelines, 5.2.5, Planting), drought tolerant plants native to the Mammoth Lakes area shall be used for landscaping to the maximum extent possible. In addition, non-invasive plant species shall be used. Furthermore, only native plants can be used for landscaping within the USFS owned portion of the site.[42] This impact is considered less than significant with compliance with these design guidelines.

Addition of Humans and Pets—Indirect effects include trampling, trash, and mortality of wildlife by unleashed pets and human foot and vehicular traffic; however, due to the fact that the project site is almost completely surrounded by developed areas, this impact is considered less than significant.

Hauling of Material Off-Site - Improvements to and use of the proposed haul roads and storage areas by trucks has the potential to crush existing vegetation and result in increased road kill of animals. In addition, this element of the project has the potential to generate dust and result in the accumulation of dust on the surface of leaves of trees, shrubs and herbs. These indirect impacts, while potentially adverse, are not expected to be significant for several reasons,

[42] *Personal communication with Mike Schlafmann, USFS, August 15, 2006.*

including: 1) the haul roads and storage sites are located within areas of existing disturbance, such as existing roads, existing ski runs, chair lift bases, and a gravel pit that are largely devoid of native vegetation; 2) no sensitive plant species are expected to be affected; 3) the habitat existing in these areas is disturbed and ruderal with low values and functions to wildlife; therefore, wildlife use is expected to be low; 4) no sensitive animals are expected to be affected; and 5) the duration of haul road use would be relatively short thereby preventing the accumulation of dust on vegetation to the point where it would be deleterious to plant life.

d. Mitigation Measures

Mitigation measures are recommended for those impacts determined to be significant to sensitive natural resources. Mitigation measures for impacts considered to be significant were developed in an effort to reduce such impacts to a level of insignificance, while at the same time allowing the project applicant an opportunity to realize development goals.

(1) Privately Owned Land/USFS-Owned Land

(a) Nesting Birds

BIO-1: The project applicant shall schedule construction, grading, and vegetation removal activities outside the nesting season is typically February 15–August 31 to the extent feasible to avoid the taking of migratory bird species. If initial vegetation removal occurs during the nesting season, all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of vegetation clearing. If any active nests are detected, a buffer of at least 100 feet (300 feet for raptors) shall be delineated, flagged, and avoided until the nesting cycle is complete as determined by the biological monitor or until construction, grading, and vegetation removal activities are completed (whichever comes first). The results of the monitoring shall be provided in writing by the biological monitor to the CDFG subsequent to the monitoring activities.

(b) Existing Jurisdictional Features

BIO-2 A qualified biological monitor shall oversee the installation of exclusionary fencing adjacent to the drainage located in close proximity to the northwestern boundary of the project site within USFS-owned land. The exclusionary fencing shall be installed prior to the commencement of construction in that area, shall remain in place during construction and shall be removed once construction disturbance has concluded. The exclusionary fencing shall be set back a minimum of 50-feet from the drainage and shall include 2-foot high pre-assembled silt fencing for erosion control as well as 4-foot high mesh orange construction fencing for visibility. The qualified monitor shall inspect

the fencing once a month while construction activities are occurring within the vicinity of the drainage and report any damage to the fencing. The construction contractor shall correct any damage to the exclusionary fencing immediately.

e. Environmental Consequences of Alternative 1 – Development in Accordance with Existing Regulatory Alternative

Alternative 1 would include 35,000 square feet of commercial uses and a parking structure. The project footprint may be reduced and would not include grading around Chair 15 and the adjacent tent structure. This would result in similar impacts to the Proposed Project Alternative, with a reduction in impacts to big sagebrush scrub, Jeffrey pine forest, and ruderal plant communities as well as a reduction in impacts to developed areas.

f. Environmental Consequences of Alternative 2 – Reduced Intensity Alternative

Alternative 2 would include a reduced intensity with lower building heights, but would include the same development footprint as the Proposed Project Alternative. Implementation of Alternative 2 would result in the same potential impacts as the Proposed Project Alternative.

g. Environmental Consequences of Alternative 3 – Alternative Design Alternative

Although Alternative 3 involves a different massing of the project (lowering a portion of the building and increasing the height of another to seven stories), Alternative 3 would include the same development footprint as the Proposed Project Alternative. Implementation of Alternative 3 would result in the same potential impacts as the Proposed Project Alternative.

h. Environmental Consequences of Alternative 4 - No Action Alternative

Implementation of the No Action Alternative would avoid any impacts to biological resources within the project site.