

12 VEGETATION AND WILDLIFE

This chapter describes the common and sensitive vegetation and wildlife resources that occur, or have the potential to occur, in the Tahoe Vista Partners, LLC Affordable Housing and Interval Ownership Development Project study area. Local, state, and federal regulations related to biological resources are described, and the effects of Alternatives A through D on vegetation and wildlife are analyzed. Mitigation measures are recommended to reduce potentially significant impacts to a less-than-significant level.

Alternatives A through D are analyzed using the environmental thresholds described below in Section 12.3 for potential direct and indirect impacts. Information regarding biological resources and regulatory objectives was obtained from the following sources: (1) Tahoe Regional Planning Agency (TRPA) Code of Ordinances (2004); (2) TRPA's 2006 Draft Threshold Evaluation Report (TRPA 2007); (3) California Native Plant Society (CNPS) Electronic Inventory (2005); (4) a records search of the California Department of Fish and Game (DFG) California Natural Diversity Database (CNDDDB 2006) for the following 7.5-minute U.S. Geological Survey quadrangles: Kings Beach, Truckee, Martis Peak, Tahoe City, Homewood, Truckee, and Meeks Bay; (5) Lake Tahoe Watershed Assessment (Murphy and Knopp 2000); (6) a U.S. Fish and Wildlife Service list (May 5, 2006) of endangered and threatened species that may be affected by projects in the Lake Tahoe Basin; (7) the U.S. Forest Service Regional Forester's list of sensitive species and TRPA's list of special interest species; and (8) a field assessment of habitat conditions by EDAW ecologists.

The project site is defined as the parcel on which the Tahoe Vista Partners, LLC Affordable Housing and Interval Ownership project would be developed. The project vicinity is defined as the project site and the surrounding area that could be affected by the project (generally, the project site and the surrounding neighborhoods).

12.1 AFFECTED ENVIRONMENT

12.1.1 VEGETATION AND WILDLIFE HABITATS

The approximately 6.2-acre project site consists of a single vegetation community and does not support any wetlands or surface waters. The vegetation community on the project site, Sierran mixed conifer forest, consists of dominant canopy species including white fir (*Abies concolor*), Jeffrey pine (*Pinus jeffreyi*), and ponderosa pine (*P. ponderosa*). Incense cedar (*Calocedrus decurrens*) can also be found scattered in the upper canopy. Shrub species including green-leaf manzanita (*Arctostaphylos patula*), mountain whitethorn (*Ceanothus cordulatus*), bitterbrush (*Purshia tridentata*), tobacco brush (*Ceanothus velutinus*), huckleberry oak (*Quercus vaccinifolia*), mahala mat (*Ceanothus prostratus*), and creeping snowberry (*Symphoricarpos mollis*) grow in patches in the northern portion of the site. Sparse cover of herbaceous species, such as common yarrow (*Achillea millefolium*), mule's ears (*Wyethia mollis*), and tansy ragwort (*Senecio jacobaea*), is present in openings between shrub patches.

Although the project site consists of one vegetation community and does not support a permanent water supply, the Sierran mixed conifer forest community could support a diverse array of wildlife species. However, because the site supports high levels of recreational and commercial use, and habitat on the project site and in surrounding areas is highly disturbed, species diversity on the project site is relatively low. The project site is operated as a public campground during summer months. During this period, high levels of noise and vehicle traffic occur and domestic animals (e.g., cats, dogs) are present. These factors limit native species abundance and diversity, and favor common species that are adapted to human disturbances. Common bird species that occur in the project vicinity include mountain chickadee (*Poecile gambeli*), brown-headed cowbird (*Molothrus ater*), northern flicker (*Colaptes auratus*), Steller's jay (*Cyanocitta stelleri*), and pygmy nuthatch (*Sitta pygmaea*). Common mammal species include California ground squirrel (*Spermophilus beecheyi*), golden-mantled ground squirrel (*Spermophilus lateralis*), coyote (*Canis latrans*), black bear (*Ursus americanus*), and raccoon (*Procyon lotor*).

12.1.2 SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources include those that are afforded special protection through the California Environmental Quality Act (CEQA); the California Fish and Game Code; the California Endangered Species Act (CESA); the federal Endangered Species Act (ESA); the federal Clean Water Act (CWA); TRPA Code of Ordinances and Goals and Policies; or other local plans, policies, and regulations.

SPECIAL-STATUS SPECIES

Special-status species include plants and animals that are legally protected or that are otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. These species include:

- ▶ plant and animal species that are listed by CESA and/or the ESA as rare, threatened, or endangered;
- ▶ plant and animal species considered candidates for listing or proposed for listing;
- ▶ plant and animal species designated as a sensitive, special interest, or threshold species by TRPA;
- ▶ plant and animal species designated as sensitive by the USFS Regional Forester in Region 5;
- ▶ animal species identified by DFG as Species of Special Concern;
- ▶ animal species identified by DFG as fully protected; and
- ▶ plant species considered by the CNPS to be rare, threatened, or endangered.

The term California Species of Special Concern is applied by DFG to animals not listed under the federal ESA or the CESA, but are considered to be declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. Federal “species of concern” are no longer designated or recognized by USFWS; therefore species previously designated as such are not addressed in this chapter.

The following sections describe the special-status species known or with potential to occur on the project site or in the project vicinity.

Special-Status Plants

Based on the database searches and literature review, 28 special-status plant species were identified that could occur in the project vicinity. Table 12-1 contains information for these special-status plant species previously recorded in the project vicinity and summarizes their potential to occur on the project site. None of these species have a moderate or high potential to occur on the site. Based on review of existing documentation and habitat present, five special-status plant species have the potential to occur on the project site. However, none of these five species are expected to occur due to high levels of disturbance and habitat modification.

Special-Status Wildlife and Fish

The initial data and literature review identified 22 special-status wildlife and fish taxa that could occur in the project vicinity. The potential for each of these species to occur on the project site was determined and based primarily on the extent and quality of habitat in the project area; it was also based on the proximity of the project area to known extant occurrences of the species and the regional distribution and abundance of the species. The regulatory status, habitat associations, and potential for occurrence of these species are summarized in Table 12-2.

Of the 21 species initially identified, three (bald eagle, osprey, and mule deer) have a moderate or high potential for occurrence on the project site and within the project vicinity and are discussed below.

**Table 12-1
Special-Status Plant Species with Potential to Occur in the Project Vicinity**

Scientific and Common Name	Regulatory Status*			Habitat and Flowering Period	Potential to Occur on the Project Site**
	Federal	State	Other		
<i>Arabis rigidissima</i> var. <i>demota</i> Galena Creek rock cress	FSS		TRPA, CNPS-1B	Broad-leaved upland forest and upper montane coniferous forest on rocky sites. 2,255–2,560 meters (m). Blooms in August. Known in California from only two populations near Martis Peak.	Not expected to occur. Marginal habitat present in rocky areas within coniferous forest.
<i>Botrychium ascendens</i> Upswept moonwort	FSS		CNPS-2	Coniferous forest in mesic substrates such as springs; 1,500–2,285 m. Fertile in August.	Not expected to occur. No suitable mesic forest habitat present on the project site.
<i>Botrychium crenulatum</i> Scalloped moonwort	FSS		CNPS-2	Bogs and fens, mesic sites in lower montane coniferous forest, meadows and seeps, and freshwater marshes and swamps. 1,500–3,280 m. Identifiable June–September.	Not expected to occur. No suitable habitat present.
<i>Botrychium lineare</i> Slender moonwort	FSS		CNPS-1B	Upper montane coniferous forest, often in disturbed areas; 2,600 m. Fertile period not known.	Not expected to occur. No suitable forest habitat present on the project site and elevations of known occurrences exceed those on the project site.
<i>Botrychium lunaria</i> Common moonwort	FSS		CNPS-2	Subalpine and upper montane coniferous forest, meadows and seeps; 2,280–3,400 m. Fertile in August.	Not expected to occur. No suitable mesic forest habitat present on the project site and elevations of known occurrences exceed those on the project site.
<i>Botrychium minganense</i> Mingan moonwort	FSS		CNPS-2	Lower montane and upper montane coniferous forest in mesic soils; 1,500–2,055 m. Fertile July–September.	Not expected to occur. No suitable mesic forest habitat present on the project site.
<i>Botrychium montanum</i> Western goblin	FSS		CNPS-2	Lower montane and upper montane coniferous forest in mesic soils; 1,500–2,130 m. Fertile July–September.	Not expected to occur. No suitable mesic forest habitat present on the project site.
<i>Bruchia bolanderi</i> Bolander’s candle moss	FSS		CNPS-2	Lower montane coniferous forest in mesic soils; 1,706–2,743 m. Fertile period not specified.	Not expected to occur. No suitable mesic forest habitat present on the project site.
<i>Carex mariposana</i> Mariposa sedge (name changed from <i>Carex paucifructus</i>)			TRPA	Red fir and subalpine coniferous forest, montane meadows; 1,200–3,200 m. Blooming period unknown.	Not expected to occur. No suitable subalpine forest and meadow habitat present on the project site.

**Table 12-1
Special-Status Plant Species with Potential to Occur in the Project Vicinity**

Scientific and Common Name	Regulatory Status*			Habitat and Flowering Period	Potential to Occur on the Project Site**
	Federal	State	Other		
<i>Draba asterophora</i> var. <i>asterophora</i> Tahoe draba	FSS		TRPA, CNPS-1B	Alpine boulder and rock fell field, subalpine coniferous forest; 2,500–3,505 m. Blooms July–September	Not expected to occur. No suitable subalpine habitat present on the project site and elevations of known occurrences exceed those on the project site.
<i>Draba asterophora</i> var. <i>macrocarpa</i> Cup Lake draba	FSS		TRPA, CNPS-1B	Subalpine coniferous forest; 2,500–2,815 m. Blooms July–August.	Not expected to occur. No suitable subalpine habitat present on the project site and elevations of known occurrences exceed those on the project site.
<i>Epilobium howellii</i> Subalpine fireweed	FSS		CNPS-1B	Subalpine coniferous forest, meadows and seeps; 2,000–2,700 m. Blooms July–August.	Not expected to occur. No suitable subalpine or meadow habitat present on the project site.
<i>Epilobium oregonum</i> Oregon fireweed			CNPS-1B	Bogs and fens and mesic sites within upper and lower montane coniferous forest. 500–2,240 m. Blooms June–September.	Not expected to occur. No suitable habitat present.
<i>Erigeron miser</i> Starved daisy	FSS		CNPS-1B	Upper montane coniferous forest in rocky soils; 1,840–2,620 m. Blooms June to October.	Not expected to occur. Marginal habitat present.
<i>Erigeron nevadincola</i> Nevada daisy			CNPS-2	Great Basin scrub, lower montane coniferous forest, and rocky sites in pinyon and juniper woodland. 1,400–2,900 m. Blooms May–July.	Not expected to occur. Marginal habitat present.
<i>Eriogonum umbellatum</i> var. <i>torreyanum</i> Torrey buckwheat	FSS		CNPS-1B	Rocky, volcanic substrate in meadows and upper montane coniferous forest. 1,855–2,620 m. Blooms July–September. Known, from fewer than 10 occurrences.	Not expected to occur. Marginally suitable habitat present.
<i>Glyceria grandis</i> American manna grass			CNPS-2	Bogs, fens, meadows, marshes, swamps, streambanks, and lake margins. 1,500–1,980 m. Blooms June–August.	Not expected to occur. No suitable habitat present.
<i>Hulsea brevifolia</i> Short-leaved hulsea	FSS		CNPS-1B	Lower and upper montane coniferous forest often on slate; 1,500–3,200 m. Blooms May – August.	Not expected to occur. No suitable coniferous forest and substrate habitat present on the project site.

**Table 12-1
Special-Status Plant Species with Potential to Occur in the Project Vicinity**

Scientific and Common Name	Regulatory Status*			Habitat and Flowering Period	Potential to Occur on the Project Site**
	Federal	State	Other		
<i>Ivesia sericoleuca</i> Plumas ivesia			CNPS-1B	Vernally mesic, usually volcanic substrate in Great Basin scrub, lower montane coniferous forest, meadows, and vernal pools. 1,465–2,200 m. Blooms May–September.	Not expected to occur. No suitable habitat present.
<i>Lewisia longipetala</i> Long-petaled lewisia	FSS		TRPA	Alpine boulder and rock field, subalpine coniferous forest; 2,500–2,925 m. Blooms July–August.	Not expected to occur. No suitable subalpine habitat present on the project site and elevations of known occurrences exceed those on the project site.
<i>Meesia triquetra</i> Three-ranked hump moss	FSS		CNPS-4	Bogs and fens, meadows and seeps, upper montane coniferous forest on mesic soil; 1,300–2,500 m. Fertile period not specified.	Not expected to occur. No suitable forest or meadow habitat present on the project site.
<i>Meesia uliginosa</i> Broad-nerved hump moss	FSS		CNPS-2	Bogs and fens, meadows and seeps, upper montane coniferous forest on mesic soil; 1,300–2,500 m. Fertile period not specified.	Not expected to occur. No suitable forest or meadow habitat present on the project site.
<i>Peltigera hydrothyria</i> Veined water lichen	FSS			Cold unpolluted streams and springs in coniferous forest.	Not expected to occur. No suitable forest or aquatic habitat present on the project site.
<i>Potamogeton filiformis</i> Slender-leaved pondweed			CNPS-2	Assorted shallow freshwater marshes and swamps. 300–2,150 m. Blooms May–July.	Not expected to occur. No suitable habitat present.
<i>Pseudostellaria sierrae</i> Sierra starwort			CNPS-3	Chaparral, cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest. 1,250–1,970 m. Blooms May–August.	Not expected to occur. Marginal habitat present.
<i>Rorippa subumbellata</i> Tahoe yellow cress	FC, FSS	CE	CNPS-1B	Decomposed granitic beaches. Endemic to Lake Tahoe beaches. 1,895–1,900 m. Blooms May–September.	Not expected to occur. No suitable habitat present.
<i>Scutellaria galericulata</i> Marsh skullcap			CNPS-2	Mesic sites in lower montane coniferous forest, meadows, and marshes and swamps. 0–2,100 m. Blooms June–September.	Not expected to occur. No suitable habitat present.

**Table 12-1
Special-Status Plant Species with Potential to Occur in the Project Vicinity**

Scientific and Common Name	Regulatory Status*			Habitat and Flowering Period	Potential to Occur on the Project Site**
	Federal	State	Other		
<i>Sphaeralcea munroana</i> Munroe's desert mallow			CNPS-2	Great Basin scrub. 2,000 m. Blooms May–June. Known in California only from Squaw Creek.	Not expected to occur. No suitable habitat present.
*Regulatory Status Codes:					
Federal:			Other:		
FT = Threatened			TRPA = TRPA threshold/special interest species		
FC = Candidate for listing by USFWS.			CNPS = California Native Plant Society (CNPS) Listing Categories:		
FSS = Forest Service Sensitive, Lake Tahoe Basin Management Unit Sensitive Species			-1B Plants rare, threatened, or endangered in California and elsewhere		
State:			-2 Plants rare, threatened, or endangered in California but more common elsewhere		
CE = Endangered			-3 Plants for which more information is needed – a review list		
CT = Threatened			-4 Plants of limited distribution – a watch list		
**Potential Occurrence Definitions					
Present – Species has been recently documented on the site by a reputable source, or was observed during site visits conducted for this analysis.					
High – All of the species' specific life history requirements can be provided for by habitat present on the site and populations are known to occur in the immediate vicinity.					
Moderate – Some or all of the species life history requirements are provided by habitat on the site; populations may not be known to occur in the immediate vicinity, but are known to occur in the region.					
Low – Species not likely to occur due to marginal habitat quality or distance from known distribution.					
Not expected to occur – None of the species' life history requirements are provided by habitat on the site and/or the site is outside of the known distribution of the species. Any occurrence would be very unlikely.					

**Table 12-2
Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity**

Scientific and Common Names	Regulatory Status*			Habitat Associations	Potential to Occur on the Project Site
	Federal	State	Local		
Amphibians					
<i>Rana muscosa</i> Mountain yellow-legged frog	FC, FSS	CSC		Occurs in streams, lakes, and ponds in upper montane and riparian forests of Sierra Nevada. Found within a few feet of water.	Not expected to occur in the project vicinity. No suitable habitat present.
<i>Rana pipiens</i> Northern leopard frog	FSS			Prefers permanent water with abundant aquatic vegetation. Occurs also in wet meadows, bogs, potholes, reservoirs, etc.	Not expected to occur. No suitable habitat present
Fish					
<i>Oncorhynchus clarki henshawi</i> Lahontan cutthroat trout	FT			Historically occurred in all accessible coldwater streams in the Lahontan Basin. Requires gravels and riffles	Not expected to occur in the project vicinity. No suitable habitat present.

**Table 12-2
Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity**

Scientific and Common Names	Regulatory Status*			Habitat Associations	Potential to Occur on the Project Site
	Federal	State	Local		
				for spawning and generally does not occur with other salmonids. Currently limited to a few tributaries of the Truckee, Carson, and Walker Rivers.	
<i>Gila bicolor pectinifer</i> Lahontan Lake tui chub	FSS			Found in Lake Tahoe, spawns in shallow near-shore environments with aquatic vegetation.	Not expected to occur in the project vicinity. No suitable habitat present.
Birds					
<i>Haliaeetus leucocephalus</i> Bald eagle	FT	CE FP	TRPA	Found along ocean shorelines, lake margins, and river courses for both nesting and wintering. Most nests are within 1 mile of water in large trees with open branches, especially Ponderosa pine. Roosts communally in winter.	Moderate potential to occur within the project vicinity and on the project site.
<i>Aquila chrysaetos</i> Golden eagle			TRPA	Uncommon resident or migrant throughout California and Nevada from sea level to 11,000 ft. Hunts in open terrain, mountains, canyons, etc.	Low potential to occur in project vicinity, not expected to occur on project site. No suitable breeding habitat in either project vicinity or site; may occasionally pass through or forage in project vicinity.
<i>Pandion haliaetus</i> Osprey		CSC	TRPA	Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Nest usually within 1,312 ft of fish-producing water, but may nest up to 1 mi from water (Airola and Shubert 1981).	Moderate potential to occur within the project vicinity and on the project site. Not reported within project site boundaries but reported perching in study area 1 km southwest of the project site.
<i>Accipiter gentilis</i> Northern goshawk	FSS	CSC	TRPA	Nests in summer in coniferous forest; uses old nests and maintains alternate sites. Usually nests on north slopes, near water and in large red fir, lodgepole pine, Jeffrey pine, and aspen trees. Multiple reports within approximately 4 miles of the project site (CNDDDB).	Not expected to occur on the project site; moderate potential to occur in the project vicinity. Nearest occurrences are approximately five kilometers north of the project site.

**Table 12-2
Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity**

Scientific and Common Names	Regulatory Status*			Habitat Associations	Potential to Occur on the Project Site
	Federal	State	Local		
<i>Accipiter cooperii</i> Cooper's hawk		CSC		Nests in oak woodlands, other mixed evergreen forest, or coniferous forest. Forages in a variety of habitats—from open areas to dense forests.	Not expected to occur on the project site; moderate potential to occur in the project vicinity.
<i>Accipiter striatus</i> Sharp-shinned hawk		CSC		Nests in coniferous or mixed forests, usually selecting a conifer for the nest tree. Forages in a wide variety of coniferous, mixed, or deciduous woodlands.	Not expected to occur on the project site; moderate potential to occur in the project vicinity.
<i>Strix occidentalis occidentalis</i> California spotted owl	FSS	CSC		Requires large, contiguous areas of old growth montane forest for nest sites. Occurs in Sierra Nevada, Cascade, Klamath, Coast, Transverse, and Peninsular mountain ranges.	Low potential to occur in project vicinity; not expected to occur on the project site. No suitable habitat present within project site. Habitat considered low quality because of low canopy cover and human disturbance.
<i>Strix nebulosa</i> Great gray owl	FSS	CE		Found in Central Sierra mature mixed conifer forests near meadows. Scattered along the west slope of the Sierra between 4,500–7,500 ft. from Plumas Co. to Yosemite.	Not expected to occur on the project site or in the vicinity. Great Grey Owl has not been detected in the Tahoe basin.
Waterfowl species (collectively)			TRPA	Wetlands and waters such as lakes, creeks, drainages, marshes, and wet meadows.	Not expected to occur on the project site due to lack of wetlands there. Lake Tahoe beach and shoreline habitat near the project site supports waterfowl.
<i>Empidonax traillii</i> Willow flycatcher	FSS	CE		Nests and breeds in dense stands of willow (<i>Salix</i> spp.) near wet meadows from California to Washington. Not known to Nevada. Breeds east of the Sierra. Occurs between 2,000–8,000 feet. Observed in the Martis Creek Wildlife area, although nesting was not reported (CNDDDB 2006).	Not expected to occur in project vicinity. No suitable habitat present.
<i>Dendroica petechia brewsteri</i> Yellow warbler		CSC		Nests and forages in riparian stands of willows (<i>Salix</i> spp.), cottonwoods (<i>Populus</i> spp.), aspens (<i>Populus</i> spp.), and alders (<i>Alnus</i> spp.). Occasionally found in montane chaparral.	Not expected to occur on project site. No suitable habitat present.

**Table 12-2
Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity**

Scientific and Common Names	Regulatory Status*			Habitat Associations	Potential to Occur on the Project Site
	Federal	State	Local		
Mammals					
<i>Gulo gulo luteus</i> California wolverine	FSS	CT FP		Inhabits upper montane and alpine habitats of Sierra Nevada, Cascades, Klamath, and north Coast Ranges. Needs water source and denning sites. Rarely seen. Sensitive to human disturbance.	Not expected to occur on project vicinity or project site.
<i>Martes americana</i> American marten	FSS	CSC		Dense, mixed conifer forests in Sierra Nevada, north Coast Ranges, Cascades, and Klamath Mountains. Prefers old growth stands with multiple age classes in vicinity.	Low potential to occur in project vicinity, not expected to occur on in project site. High disturbance levels and lack of refuges (snags, downed logs, etc) limit the potential for this species to occupy the project site.
<i>Martes pennanti pacifica</i> Pacific fisher	FC, FSS	CSC		Stands of pine, Douglas fir, and true fir, in northwestern California and Cascade-Sierra ranges. Fishers do not occur through much of the Central and Northern Sierra Nevada (Zielinski et al. 1995).	Not expected to occur in project vicinity or on project site. No suitable habitat present.
<i>Corynorhinus townsendii pallescens</i> Pale Townsend's big-eared bat	FSS			Ranges throughout California mostly in mesic habitats. Limited by available roost sites, such as caves, tunnels, mines, and buildings.	Not expected to occur. No occurrences reported within Tahoe Basin (Schlesinger and Romsos 2000).
<i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver		CSC		Dense growth of small deciduous trees and shrubs near permanent water throughout the Sierra Nevada, Cascades, and Klamath Mountains. Burrows in soft soil. Reported in several creeks north and west of the project site (CNDDDB).	Not expected to occur on the project site. No suitable habitat (permanent water) is available in the project vicinity. Reported approximately four miles north of the project site.
<i>Lepus americanus tahoensis</i> Sierra Nevada snowshoe hare		CSC		Upper montane coniferous and riparian forests in the northern and central Sierra Nevada.	Low probability of occurrence. Marginal forage available between campsites. Not reported in project vicinity.
<i>Lepus townsendii</i> Western white-tailed jackrabbit		CSC		Uncommon or rare resident of the Sierra Crest and the eastern slopes of the Sierra. Sagebrush, juniper, subalpine conifer, alpine dwarf-shrub, and perennial grasslands are preferred habitats.	Not expected to occur. Preferred habitat not present on site, CNDDDB occurrence is a specimen collected in 1920 from Tahoe City.

Table 12-2 Special-Status Wildlife and Fish Species With Potential to Occur in the Project Vicinity					
Scientific and Common Names	Regulatory Status*			Habitat Associations	Potential to Occur on the Project Site
	Federal	State	Local		
<i>Vulpes vulpes necator</i> Sierra Nevada red fox	FSS	CT		Upper montane coniferous forests of the Sierra Nevada and Cascade Mountains of California.	Not expected to occur. Presumed extirpated from the Basin (Schlesinger and Romsos 2000).
<i>Odocoileus hemionus</i> Mule deer			TRPA	Yearlong resident or elevational migrant, prefers a wide distribution of various-aged vegetation for cover, meadow and forest openings, and free water.	Moderate potential to occur within the project vicinity and in the project site. Marginal habitat on project site includes some forage: mountain whitethorn (<i>Ceanothus cordulatus</i>), bitterbrush (<i>Purshia tridentata</i>), and tobacco brush (<i>Ceanothus velutinus</i>).
*Regulatory Status Codes:			State:		
Federal:			CE =	Endangered	
FT = Threatened			CT =	Threatened	
FC = Candidate for listing by USFWS.			CSC =	California Species of Concern by DFG	
FSS = Forest Service Sensitive, Lake Tahoe Basin Management Unit Sensitive Species			FP =	Fully Protected species that may not be taken without a take permit from DFG	
			Local:		
			TRPA =	TRPA threshold/special-interest species	
Potential Occurrence Definitions					
Present – Species has been recently documented on the site by a reputable source, or was observed during site visits conducted for this analysis.					
High – All of the species' specific life history requirements can be provided for by habitat present on the site including forage, cover, breeding habitat, etc. Populations are known to occur in the immediate vicinity, are likely to use the site frequently, and breeding populations could occur.					
Moderate – Most or all of the species life history requirements are provided by habitat on the site and populations are likely to occur or use the site seasonally. Moderate potential sites may be further from known populations, or may be lacking certain habitat elements.					
Low – Species not likely to occur due to marginal habitat quality or distance from known range. Individuals may use the site occasionally, but breeding populations are unlikely and high use is not expected at any time of year.					
Not expected to occur – None of the species' life history needs can be met by habitat on the site and/or the site is well outside of the known range for the species. Any occurrence would be migratory and very unlikely.					

Bald eagle (*Haliaeetus leucocephalus*)

Bald eagle is listed as threatened under the ESA; it is also proposed for delisting from the ESA. This species is also designated as a special interest species by TRPA. Bald eagles nest and winter at Lake Tahoe. Three bald eagle nest sites are known to occur in the Basin: one at Emerald Bay and two at Marlette Lake. Winter season surveys for bald eagle in the Basin are conducted annually and sponsored by LTBMU; breeding season surveys are conducted annually by TRPA. Most bald eagle sightings in the Basin have occurred along undeveloped shorelines and south shore marshes. TRPA has designated bald eagle wintering habitat in the south Basin at Emerald Bay and the Upper Truckee Marsh.

Bald eagles generally avoid nesting near areas of intense human activity, and build their nests in undisturbed forest habitats near lakes for foraging. The wintering population at Lake Tahoe uses perches near the lakeshore

and likely consists of resident birds, their offspring, and migratory individuals (TRPA 2002). Under TRPA regulation, perch sites are not to be physically disturbed. Bald eagles do not use the project site for nesting. The site is probably not used regularly for perching because of the current level of human activity and because of the existence of more suitable habitat nearby; however, individuals may occasionally perch on the project site during the winter when the campground is closed.

Osprey (Pandion haliaetus)

Osprey is designated as a special interest species by TRPA. Ospreys nest in tall trees near water bodies that support fish populations. They are known to perch approximately 1 km southwest of the project site. Under TRPA regulation, perch sites are not to be physically disturbed. Ospreys are not expected to use the project site for nesting or perching because of the current level of human activity and because more suitable habitat exists nearby. Individuals may occasionally perch on the project site during the winter when the campground is closed.

Mule deer (Odocoileus hemionus)

Mule deer is designated as a special interest species by TRPA and a management indicator species by LTBMU. Both the Carson River and Loyalton-Truckee deer herds occur in the Tahoe Basin during snow-free months. The Tahoe Basin includes fawning and summer range for these herds. Mule deer numbers in the Tahoe Basin are relatively low; and over the last 10 years, migratory habitat loss and fragmentation has increased throughout the herds' range as a result of residential development, and population sizes have been declining. The loss of wintering habitat and reduced access to wintering areas may be the primary causes of these population declines (TRPA 2002).

Mule deer use early to mid-successional stages of several vegetation types, including riparian, meadow, and forest. Important habitat requirements for mule deer fawning include undisturbed meadow and riparian areas that provide hiding cover and forage. Early to mid-successional forests are used primarily as summer range.

Mule deer are not likely to occur regularly on the project site. However, deer probably use portions of the project vicinity for foraging habitat during migration. There is no designated critical summer range or critical fawning habitat for either the Loyalton-Truckee or Carson River herds in the project area. Mule deer fawning habitat and migration corridors are located nearby at Northstar-at-Tahoe. However, the project site itself has not been identified as either a deer migration area, a fawning area, or an area predicted to be a fawning area (TRPA 2002). There is no suitable fawning habitat for mule deer on the project site. Also, fawning would not occur in or adjacent to residential areas subject to the frequency, consistency, and intensity of human disturbances characteristic of the project area.

The project vicinity is primarily residential and experiences high levels of residential and recreational use. Although unlikely, mule deer could occasionally move through or adjacent to the site during migration, particularly in the undeveloped parcels in and adjacent to the northern portion of the project area.

SENSITIVE HABITATS

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the federal Clean Water Act (CWA), and the State's Porter-Cologne Water Quality Control Act, as discussed under "Regulatory Setting" above. Sensitive natural habitat may be of special concern to these agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these communities are tracked in DFG's CNDDDB, a statewide inventory of the locations and conditions of the State's rarest plant and animal taxa and vegetation types. No sensitive habitats are present on the project site.

OTHER ECOLOGICALLY SIGNIFICANT WILDLIFE RESOURCES

A resource is considered ecologically significant if it:

- ▶ is important to the essential character of the unit, and contributes, in part, to its statewide significance;
- ▶ is regionally significant, is an important component of a systemwide plan, or contributes to the persistence of regional or statewide biodiversity; or
- ▶ is documented as significant on recognized preservation or protection lists or otherwise designated with special status by a recognized authority.

Several other groups of resources in the project vicinity are considered ecologically significant: raptor species, the riparian bird communities and neotropical migrant landbirds, common migratory birds, bats, and movement corridors. These resources are discussed below.

Raptor Species

Although not all raptors are considered special-status species, they are a sensitive biological resource protected under Section 3503.5 of the California Fish and Game Code, which prohibits take or destruction of raptors, including their nests and eggs. Additionally, raptors are considered ecologically significant as a group because they:

- ▶ function at a high trophic level and their populations are typically sensitive to the distribution and local abundance of prey populations;
- ▶ represent a wide range of life histories with respect to nesting, foraging, and habitat-use requirements;
- ▶ include several species sensitive to habitat disturbance and loss; and
- ▶ are generally visible and an important component of a wildlife viewing experience.

Common raptor species, such as red-tailed hawk (*Buteo jamaicensis*) and great horned owl (*Bubo virginianus*), are not considered special-status species because they are not rare or protected under the ESA or CESA. However, nests of these species are still protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code. Forest habitat in the project vicinity provides potential nesting habitat for common raptors that occur in the project region, including red-tailed hawk, great-horned owl, and Cooper's hawk (*Accipiter cooperi*).

Riparian Bird Communities and Neotropical Migrant Landbirds

Riparian areas provide some of the most important habitat for neotropical migrants that breed in or migrate through the western United States. These areas function as breeding habitat, as well as important stopover areas during spring and fall migration. Riparian habitat degradation and loss may be the most important cause of landbird population declines in western North America (RHJV 2004). Conservation of neotropical migrants has received considerable attention over the past 15 years because of local and widespread population declines of species in this group (see Hagen and Johnston 1992).

The high quality of riparian habitats and diversity of neotropical migrants in Placer County indicate the importance of this area to regional avian conservation and management. However, the project site does not support riparian habitat.

Common Migratory Birds

A large number of common bird species are migratory and fall under the jurisdiction of the MBTA. A comprehensive list of MBTA species that could occur in the project study area is too lengthy to provide here, but includes such familiar species as mountain chickadee (*Parus gambeli*), purple finch (*Carpodacus purpureus*), and northern flicker (*Colaptes auratus*). The nests of all migratory birds are protected under the MBTA, which makes it illegal to destroy any active migratory bird nest. Several migratory bird species have the potential to nest in the project study area.

Bats

Several bat species could inhabit the project vicinity, including long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), and Yuma myotis (*Myotis yumanensis*). These species are widely distributed throughout California; however, many of these species are rare within these overall ranges (Zeiner et al. 1990b). Important habitat elements for bat species consist of foraging habitat, night roosting cover, day roosting sites, maternity roost sites, and winter hibernacula. These bat species may forage within a variety of habitats, including montane riparian scrub, montane meadow, mixed coniferous forest, and red fir forest. Suitable roosting sites within these habitats include caves, rock crevices, cliffs, buildings, tree bark, and snags. Some or all of these bat species are likely to forage in the project vicinity, but there is a low likelihood that maternity roosts or hibernacula are located on the project site. Several large incense cedar trees found on site may have suitable roosting cavities, and some of the old buildings could provide additional roosts. According to the Sandy Beach Campground Manager, bats have roosted in the main 2-story building near the SR 28 entrance to the site and bats are occasionally seen in the campground.

Migratory Corridors

Wildlife movement corridors are considered an important ecological resource by various agencies (e.g., DFG, USFWS, USFS, TRPA, Placer County) and under CEQA. Ecological corridors have been addressed in several conservation biology and landscape planning applications. As landscapes become increasingly fragmented, organisms that occupy remaining patches of suitable habitat may experience a reduction in habitat quality and area, and become at risk to processes that affect small or isolated populations (see Soule 1987, Hanski and Gilpin 1997). These processes may include changes in microclimates, limits to daily or seasonal movements, inbreeding depression, and random demographic or environmental catastrophes. These factors can result in increased mortality or local extinction of populations. Protecting and managing ecological corridors that link core areas of habitat, and facilitate movement or dispersal among habitat patches, has been widely proposed to reduce the adverse effects of habitat fragmentation. By maintaining or increasing connectivity among habitat patches or distinct regions, corridors may play an important role in maintaining population persistence (Petit et al. 1995) and genetic diversity (Hobbs 1992), facilitating recolonization of sites where populations have gone extinct (Wiens 1996), or allowing for traditional seasonal movements within a population's overall range. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Stream corridors may often be used by wildlife as movement corridors.

Although corridors are widely proposed, few empirical studies conclude that corridors fulfill their function as movement conduits between core areas (see Simberloff and Cox 1987, Rosenberg et al. 1997). However, several studies have demonstrated their effectiveness in particular applications (e.g., Beier 1995, Haddad 1999). Whether protecting corridors are an effective conservation measure would partly depend on their spatial design, the species and landscapes they are planned for, and the management goals directing their implementation.

The project site is mostly surrounded by residential development, and there is very little access from the project site to undisturbed areas outside the project vicinity. In addition, the project site does not support high-value

foraging, breeding, or movement habitat. Therefore, the project site is not expected to function as part of a wildlife movement corridor.

12.2 REGULATORY SETTING

12.2.1 TAHOE REGIONAL PLANNING AGENCY

Chapter IV, Conservation Element, of the TRPA Goals and Policies establishes goals for the preservation, development, utilization, and management of natural resources within the Tahoe Basin. These policies and goals are designed to achieve and maintain adopted environmental threshold carrying capacities and are implemented through the TRPA Code of Ordinances. The pertinent Code of Ordinances provisions regarding vegetation and wildlife are listed below.

VEGETATION PROTECTION AND MANAGEMENT

TRPA requires the protection and maintenance of all native vegetation types. In particular, Chapter 74 of the TRPA Code of Ordinances provides for the protection of Stream Environment Zone (SEZ) vegetation, other common vegetation, uncommon vegetation, and sensitive plants. TRPA defines SEZ as an area that owes its biological and physical characteristics to the presence of surface or groundwater; the project site is not located in an SEZ. TRPA can require the preparation and implementation of a remedial vegetation management plan, where the need has been identified, for the purposes of environmental threshold maintenance or attainment.

TREE REMOVAL

TRPA regulates the management of forest resources in the Lake Tahoe Basin to achieve and maintain the environmental thresholds for species and structural diversity, to promote the long-term health of the resources, and to create and maintain suitable habitats for diverse wildlife species. Provisions for tree removal are provided in the TRPA Code of Ordinances (Chapter 71, and Chapters 30, 65, 75, and 77), and tree removal requires the review and approval of TRPA. Per TRPA Code of Ordinances, Sections 71, and 71.2.B, within the non-SEZ urban area, individual trees larger than 30 inches diameter at breast height (dbh) that are healthy and sound shall be retained as desirable specimen trees having aesthetic and wildlife value, unless: (1) all reasonable alternatives are not feasible to retain the tree, including reduction of parking areas or modification of the original design or; (2) if TRPA determines that they would contribute to a fire hazard, pose an unacceptable risk to occupied or substantial structures or areas of high human use, or if removal of severely insect-infested or diseased trees is warranted to help control an outbreak. In addition, trees and vegetation not scheduled to be removed must be protected during construction in accordance with TRPA Code of Ordinances, Chapter 65.

WILDLIFE

TRPA sets standards for the preservation and management of wildlife habitats, with special emphasis on protecting or increasing habitats of special significance, such as deciduous trees, wetlands, meadows, and riparian areas (TRPA Code of Ordinances, Chapter 78). Specific habitats that are protected include SEZs, movement and migration corridors, critical habitat for any species of concern, and snags and coarse woody debris. In addition, special-interest species, which are locally important because of rarity or other public interest, and threatened, endangered, or rare species designated under state or federal endangered species acts, are protected from habitat disturbance or conflicting land uses. Locally important species of special interest include northern goshawk, osprey, bald eagle, golden eagle, peregrine falcon, waterfowl species, and mule deer.

The TRPA environmental threshold carrying capacities for vegetation and wildlife are discussed under the “Criteria of Significance” Section below. The Goals and Policies of the Regional Plan are discussed in Chapter 6, “Land Use,” of this EA/EIR.

12.2.2 FEDERAL

FEDERAL ENDANGERED SPECIES ACT

Pursuant to the ESA, USFWS and the National Oceanic Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) have authority over projects that may result in the take of a federally-listed species. “Take” is defined to include harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species, or any attempt to engage in such conduct (16 United States Code [USC] 1532; 50 Code of Federal Regulations [CFR] 17.3). Actions that result in unauthorized take can result in civil or criminal penalties. If a project is likely to result in the take of a species federally-listed and threatened or endangered, either an incidental take permit, under Section 10(a) of ESA, or a federal interagency consultation, under Section 7 of ESA, is required.

MIGRATORY BIRD TREATY ACT

The federal MBTA prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the U.S. Secretary of the Interior. Most native bird species fall under the jurisdiction of the MBTA.

12.2.3 STATE

CALIFORNIA ENDANGERED SPECIES ACT

Pursuant to the CESA and Section 2081 of the California Fish and Game Code, a permit from DFG is required for projects that could result in the “take” of a state-listed threatened or endangered species. Under CESA, “take” is defined as an activity that would directly or indirectly kill a listed species, but the definition does not include “harm” or “harass” as the federal ESA does. As a result, the threshold for a take under CESA is higher than under the federal ESA (i.e., habitat modification is not necessarily considered take under CESA). For species that are listed under both the federal ESA and CESA, a federal Section 10(a) or Section 7 permit can suffice for a CESA incidental take permit, if DFG finds that the ESA permit is consistent with the requirements of CESA.

DFG is also concerned with the protection of species listed as California species of special concern and plants considered rare, threatened, or endangered by CNPS. These resources are not legally protected by CESA, but impacts to these resources may be considered significant under CEQA.

CALIFORNIA FISH AND GAME CODE

Section 3503.5 of the California Fish and Game Code protects raptors (birds of prey) and their nests and eggs against take, destruction, or possession. Section 3513 protects any migratory non-game bird as designated in the MBTA (see above) against take or possession. Section 3503 protects all bird nests and eggs from take, possession, or needless destruction. Sections 3511 (birds), 4700 (mammals), 5,050 (reptiles and amphibians) and 5,515 (fish) list fully protected species, including wolverine (*Gulo gulo*) and bald eagle (*Haliaeetus leucocephalus*), and protects them from take or possession.

FOREST PRACTICE ACT

The California Department of Forestry and Fire Protection (CDF) enforces laws found in the Forest Practice Act that regulate logging on privately-owned lands in California. The Forest Practice Act was enacted to ensure that logging is done in a manner that will preserve and protect our fish, wildlife, forests and streams. Additional Forest Practice Rules (FPR) enacted by the State Board of Forestry and Fire Protection are also enforced to protect these resources. CDF requires the preparation of an environmental review document, called a Timber Harvest Plan

(THP), when removing trees on parcels greater than 3 acres in size for commercial purposes. Cutting or removing trees during the conversion of timberlands to land uses other than the growing of trees is considered a commercial operation by Forest Practice Rules. In addition, a Timberland Conversion Permit (TLCP) or a Notice of Exemption from Timberland Conversion for Subdivision Permit is required when converting timberland to a non-timber growing use.

12.2.4 LOCAL

PLACER COUNTY TREE ORDINANCE

The Placer County Tree Ordinance (County Code, Chapters 12.16 and 12.20) is intended to provide protection for all native, landmark trees, riparian zone trees, and certain commercial firewood operations, except as exempted. Under this ordinance, no development activities should be conducted within the protected zone of any protected tree on public or private land, or harm, destroy, kill or remove any protected tree unless authorized by a tree permit or as permitted pursuant to approval of a discretionary project.

12.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES

12.3.1 CRITERIA OF SIGNIFICANCE

CEQA CRITERIA

Based on Appendix A of Placer County's Environmental Review Ordinance, the project would have a significant impact related to vegetation and wildlife if it would:

- ▶ substantially affect a rare or endangered species;
- ▶ interfere substantially with the movement of any resident or migratory fish or wildlife species;
- ▶ substantially diminish habitat for fish, wildlife, or plants;
- ▶ substantially affect a threatened species;
- ▶ result in any significant activity in riparian areas or wetlands;
- ▶ remove more than 50% of the existing vegetation; and
- ▶ result in any significant construction in a deer migration route.

Based on Appendix G of the State CEQA Guidelines, the project would have a significant impact if it would:

- ▶ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- ▶ have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

TRPA ENVIRONMENTAL CARRYING CAPACITY THRESHOLDS

TRPA has established environmental thresholds for vegetation resources in four areas: common vegetation, uncommon plant communities, sensitive plants, and late seral/old-growth ecosystems. The environmental threshold indicators, listed below, are used to establish the significance of an environmental effect on vegetation resources in the Lake Tahoe Basin. Amendments to some of these thresholds have been recommended as part of

the Pathway planning process. These recommendations are included in TRPA's 2006 Draft Threshold Evaluation Report (TRPA 2007) released for public comment in April 2007.

Common Vegetation

Increase plant and structural diversity of forest communities through appropriate management practices as measured by diversity indices of species richness, relative abundance, pattern, and the natural qualities of the community. The conversion of 6.2 acres of highly disturbed Sierran mixed conifer forest within a residential setting into a developed site would have no impact on the attainment of this threshold.

Uncommon Plant Communities

Provide for the nondegradation of the natural qualities of any plant community that is uncommon to the Basin or of exceptional scientific, ecological, or scenic value. This threshold shall apply but not be limited to: the deep-water plants of Lake Tahoe; Grass Lake (sphagnum fen); Osgood Swamp; the Freel Peak Cushion Plant Community; Hell Hole (sphagnum fen); Upper Truckee Marsh; Taylor Creek Marsh; and Pope Marsh. No uncommon plant communities are found in the project area, so the project would have no impact on this threshold.

Sensitive Plants

Maintain a minimum number of population sites for the following TRPA special-interest plant species: Galena creek rockcress (*Arabis rigidissima* var. *demota*), long-petaled lewisia (*Lewisia longipetala*), Cup Lake draba (*Draba asterophora* var. *macrocarpa*), Tahoe draba (*Draba asterophora* var. *asterophora*), and Tahoe yellow cress (*Rorippa subumbellata*). No sensitive plants are expected to be found in the project area, so the project would have no impact on this threshold.

Late Seral/Old Growth Ecosystems

Attain and maintain a minimum of 55% by area of forested lands within the Tahoe region in a late seral or old-growth condition, and distributed across elevation zones. Forested lands within TRPA-designated urban areas are excluded in the calculations for threshold attainment. None of the Sierran mixed conifer forest present within the study area would qualify as late seral/old growth. Therefore, tree removal and subsequent development would not affect the attainment of this threshold.

Wildlife

Two threshold standards are identified for wildlife: (1) to provide the minimum number of special-interest-species population sites, and (2) apply a nondegradation standard to habitats of special significance consisting of deciduous trees, wetlands, and meadows while providing opportunities to increase the acreage of such riparian associations. The project area is not a special-interest-species population site, nor contains any habitats of special significance. Development of the project site would not affect the attainment of this threshold.

12.3.2 IMPACT ANALYSIS

ALTERNATIVE A—PROPOSED PROJECT

IMPACT 12.A-1 **Common and Sensitive Habitats.** *The project site does not support sensitive habitats. Implementation of Alternative A would result in the loss or disturbance of approximately 6.2 acres of Sierran mixed conifer forest, a common habitat in the project region.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

The project site does not support any uncommon plant communities, sensitive plant species, late seral/old-growth forest habitat, wetlands, riparian habitats, waters of the state, waters of the United States, or SEZ. In addition, there are no sensitive habitats in the immediate vicinity of the project site. Therefore, Alternative A would not affect sensitive habitats in the project study area.

The project site consists of a single vegetation community, Sierran mixed conifer forest. The proposed project would regrade nearly the entire project site and remove 155 trees less than 30 inches dbh. Therefore, approximately 6.2 acres of Sierran mixed conifer forest habitat would be removed or substantially disturbed. Indirect impacts of the proposed development (e.g., lighting, noise, human disturbance, influx of domestic animals) have the potential to radiate beyond the project boundaries, potentially affecting surrounding habitats. However, because the project site is surrounded by urban development (primarily residential and commercial), potential indirect impacts from Alternative A are not expected to disturb any additional habitat.

The Sierran mixed conifer forest habitat is abundant and widespread in the local area and region. It receives no direct protection from federal, state, or local agencies. Because this habitat is abundant, development of the project site would not threaten to eliminate this community from the region, nor would it cause a substantial reduction in habitat for fish, wildlife, or plants associated with this habitat in the project region. Therefore, Alternative A would have a **less-than-significant** impact associated with the loss of common habitat in the project area.

IMPACT 12.A-2 **Vegetation Removal.** *Buildout of Alternative A would result in the conversion of approximately 6.2 acres of Sierran mixed conifer forest to buildings, walkways, driveways, parking, and landscaping. Because vegetation removed would exceed 50% of the existing on-site vegetation, this would be a potentially significant impact.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.A-2. Develop and Implement a Revegetation Plan.*

Significance after Mitigation *Less Than Significant*

The Sierran mixed conifer forest vegetation community on the project site is not a protected habitat type; therefore, as described in Impact 12.A-1 above, the loss of 6.2 acres of this common habitat would not be a significant biological impact by itself. However, Placer County CEQA thresholds provide that a potentially significant impact would occur if a project were to remove more than 50% of the existing vegetation. In addition, TRPA has standards for common vegetation structural diversity (TRPA Code of Ordinances, Chapter 5, “Threshold Evaluation”) and protective measures for vegetation (TRPA Code of Ordinances, Chapter 71).

Alternative A would result in the conversion of approximately 6.2 acres of vegetation to buildings, walkways, driveways, parking spaces, landscaping, and other pervious surfaces. The level of detail provided in the proposed development plans at this stage of the planning process is not sufficient to determine the total percentage of vegetation removed as part of Alternative A; however, based on known tree removal and the proposed site plan (Exhibit 3-4), the total vegetation removal would exceed 50%, and based on these regulations, vegetation removal associated with construction of the project would result in a **potentially significant** impact.

IMPACT **Tree Removal.** *Buildout of Alternative A would result in the loss of approximately 155 individual trees between 6 and 29 inches dbh.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.A-3. Minimize Tree Removal, Develop a Tree Management Plan, and a Tree Replacement Plan.*

Significance after Mitigation *Less Than Significant*

The Sierran mixed conifer forest vegetation community on the project site is not a protected habitat type; therefore, as described in Impact 12.A-1 above, the loss of 6.2 acres of this common habitat would not be a significant biological impact by itself. However, both Placer County and TRPA have ordinances protecting trees from removal and, under the Forest Practice Act, CDF enforces laws that regulate logging on privately-owned lands in California.

The project site supports approximately 292 trees greater than 6 inches dbh. Alternative A would result in the removal of approximately 155 trees between 6 and 29 inches dbh (Lundahl & Associates 2006, TRPA 2004, Ferrier 2004), totaling approximately 53% of the existing trees on the site (Exhibit 3-14). Of the 155 trees to be removed with Alternative A, 25 of those trees are already authorized for removal under TRPA Permit No. 2937 for forest health reasons, but remain in place to serve as barrier trees offering protection to other healthy trees. Alternative A would not result in the removal of any tree measuring 30 inches dbh or greater. Based on TRPA, Placer County, and CDF regulations, anticipated tree removal associated with construction of Alternative A would result in a **potentially significant** impact. The total number of trees (dbh 6 inches or greater) to be removed solely as a result of the construction of each project alternative is presented in Table 12-3.

IMPACT **Wildlife Movement Corridors.** *No wildlife movement corridors have been identified on the project site and no significant corridors are likely to exist.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

The project site is mostly surrounded by residential development, and there is very little access from the project site to undisturbed areas outside the project vicinity. In addition, the project site does not support high-value foraging, breeding, or movement habitat. Therefore, the project site is not expected to function as part of a wildlife movement corridor.

**Table 12-3
Estimated Tree Removal by Alternative**

Project Alternative	Total # of trees to be removed (6"- 29" dbh)	# of Incese Cedars to be removed	# of Lodgepole Pines to be removed	# of Jeffrey Pines to be removed	# of Sugar Pines to be removed	# of White Firs to be removed	# of Snags to be removed	Trees to be Removed Due to Construction	Remaining Trees to be Removed Per TRPA Permit No. 2937	Estimated % of total trees to be removed
A	155	31	17 (15 per TRPA Permit)	69 (6 per TRPA Permit)	1	37 (1 per TRPA Permit)	4 (3 per TRPA Permit)	130	25	53%
B	125	27	21 (15 per TRPA Permit)	53 (6 per TRPA Permit)	1	23 (1 per TRPA Permit)	4 (3 per TRPA Permit)	100	25	43%
C	123	26	20 (15 per TRPA Permit)	55 (6 per TRPA Permit)	1	21 (1 per TRPA Permit)	4 (3 per TRPA Permit)	98	25	42%
D	0	0	0	0	0	0	0	0	0	0

¹ While 25 trees are also permitted for removal with Alternative D, there would be no action (or development) that would trigger the removal of these trees that now serve as barrier trees offering protection of healthy trees on site.

Source: Lundahl & Associates 2006, TRPA 2004, Ferrier 2004
 Note: Tree numbers were calculated by the number of trees on site per the survey dated August 2006. This survey was completed after 181 trees were removed pursuant to TRPA Permit No. 2937, File #QE20041145.

Mule deer fawning habitat and migration corridors are located nearby at Northstar-at-Tahoe, within approximately 3 kilometers of the project site. However, the project site itself has not been identified as either a deer migration area, a fawning area, or an area predicted to be a fawning area (TRPA 2002). Deer likely forage occasionally in the vicinity, but because the project site is relatively disturbed and isolated from undisturbed habitat, and because it does not support high-quality resources for deer, the project site is not considered a movement corridor for this species.

No wildlife movement corridors have been identified on the project site and none are likely to exist. Therefore, impacts to wildlife movement corridors would be **less than significant**.

IMPACT 12.A-5	Nesting Raptors and Migratory Birds. <i>Development of Alternative A could adversely affect nesting raptors and other migratory birds.</i>
Significance	<i>Potentially Significant</i>
Mitigation	<i>Mitigation Measure 12.A-5. Avoid Vegetation Removal During Nesting Season and Conduct Preconstruction Surveys.</i>
Significance after Mitigation	<i>Less Than Significant</i>

The project study area contains includes potential nesting and foraging habitat for several common migratory bird species protected under the MBTA. Habitat is also available for common raptor species protected under Section 3503.5 of the California Fish and Game Code.

Construction of Alternative A would result in the removal of trees and vegetation that could provide nesting habitat for bird species. Construction within occupied habitat of nesting bird species could cause direct impacts on breeding and nesting activities, including removal of active nests, nest abandonment, and mortality to eggs and chicks. Construction could also result in noise, dust, and other disturbances to nesting bird species in the vicinity, resulting in potential nest abandonment and mortality to eggs and chicks. This would be a **potentially significant** impact.

IMPACT 12.A-6	Special-Status Species and Common Wildlife. <i>Development of Alternative A could adversely affect special-status species or common wildlife. However, special-status species are not expected to occupy the project site and Alternative A would not threaten the viability of common species populations.</i>
Significance	<i>Less Than Significant</i>
Mitigation	<i>No Mitigation is Required</i>
Significance after Mitigation	<i>Less Than Significant</i>

No special-status plant species are expected to occur on the project site due to lack of suitable habitat and/or existing levels of disturbance and recreation use. Several common and special-status wildlife species may use the project site and/or vicinity for all or part of their life cycles. EDAW biologists conducted a habitat assessment of the project site on June 20, 2006. No special-status species were observed during this assessment. However, focused wildlife surveys have not been conducted. Implementation of Alternative A could adversely affect these species either directly (through habitat loss or incidental mortality during construction) or indirectly (through increased human disturbance following project completion). However, the project site is not expected to regularly support any special-status wildlife species. The composition and structure of habitat types on the project site do not provide suitable breeding conditions for any of the special-status species that could occur in the vicinity. Also,

the site experiences high levels of recreational and residential use, and habitat in the project site and surrounding areas is highly disturbed. Because these species are not expected to inhabit the project study area, potential impacts to special-status species would be **less than significant**.

Common species are relatively abundant in the project study area and receive no species-specific protection from federal, state, or local resource agencies. The potential loss of individuals of these common wildlife species would not result in populations decreasing below self-sustaining levels or threaten to eliminate any animal communities. Therefore, potential impacts to common species would be **less than significant**.

IMPACT 12.A-7 **Bat Species.** *Development of Alternative A could adversely affect common bat species living in the project vicinity. Direct mortality and loss of roosting habitat would be a potentially significant impact.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.A-7. Conduct Bat Surveys and Prepare Bat Management Plan.*

Significance after Mitigation *Less Than Significant*

Several bat species could inhabit the project vicinity, including long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), and Yuma myotis (*Myotis yumanensis*). Decadent Incense Cedar trees with large cracks and crevices, and old buildings on the project site could provide roosting habitat. Because many bat species are locally rare, loss of a significant roost could adversely affect local populations.

Construction of Alternative A would result in the removal of potential bat roosting habitat including trees and old buildings. Loss of roosting habitat within the project site could adversely affect local bat populations and would be a **potentially significant** impact.

ALTERNATIVE B—REDUCED DEVELOPMENT

IMPACT 12.B-1 **Common and Sensitive Habitats.** *This impact is the same as Impact 12.A-1 described above for Alternative A. The project site does not support sensitive habitats. Implementation of Alternative B would result in the loss or disturbance of approximately 6.2 acres of Sierran mixed conifer forest, a common habitat in the project region.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

IMPACT 12.B-2 **Vegetation Removal.** *This impact is the same as Impact 12.A-2 described above for Alternative A. Buildout of Alternative B would result in the conversion of approximately 6.2 acres of Sierran mixed conifer forest to buildings, walkways, driveways, parking, and landscaping. Because vegetation removed would exceed 50% of the existing on-site vegetation, this would be a potentially significant impact.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.B-2. Develop and Implement a Revegetation Plan.*

Significance after Mitigation *Less Than Significant*

IMPACT 12.B-3 **Tree Removal.** *Buildout of Alternative B would result in the loss of approximately 125 individual trees between 6 and 29 inches dbh.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.B-3. Minimize Tree Removal, Develop a Tree Management Plan, and a Tree Replacement Plan.*

Significance after Mitigation *Less Than Significant*

As described above for Alternative A, the project site supports approximately 292 trees greater than 6 inches dbh. Alternative B would result in the removal of approximately 125 trees between 6 and 29 inches dbh (see Table 12-3), totaling approximately 43% of the existing trees on the site (Exhibit 4-2). Of the 125 trees to be removed with Alternative B, 25 of those trees are already authorized for removal under TRPA Permit No. 2937 for forest health reasons, but remain in place to serve as barrier trees offering protection to other healthy trees. Alternative B would not result in the removal of any tree measuring 30” dbh or greater. Based on TRPA, Placer County, and CDF regulations, anticipated tree removal associated with construction of Alternative B would result in a **potentially significant** impact.

IMPACT 12.B-4 **Wildlife Movement Corridors.** *This impact is the same as Impact 12.A-4 described above for Alternative A. No wildlife movement corridors have been identified on the project site and no significant corridors are likely to exist.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

IMPACT 12.B-5 **Nesting Raptors and Migratory Birds.** *This impact is the same as Impact 12.A-5 described above for Alternative A. Development of Alternative B could adversely affect nesting raptors and other migratory birds.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.B-5. Avoid Vegetation Removal During Nesting Season and Conduct Preconstruction Surveys.*

Significance after Mitigation *Less Than Significant*

IMPACT 12.B-6 **Special-Status Species and Common Wildlife.** *This impact is the same as Impact 12.A-6 described above for Alternative A. Development of Alternative B could adversely affect special-status species or common wildlife. However, special-status species are not expected to occupy the project site and Alternative B would not threaten the viability of common species populations.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

IMPACT 12.B-7 **Bat Species.** *This impact is the same as Impact 12.A-7 described above for Alternative A. Development of Alternative B could adversely affect common bat species living in the project vicinity. Direct mortality and loss of roosting habitat would be a potentially significant impact.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.B-7. Conduct Bat Surveys and Prepare Bat Management Plan.*

Significance after Mitigation *Less Than Significant*

ALTERNATIVE C—REDUCED DEVELOPMENT WITH RECREATION ELEMENTS

IMPACT 12.C-1 **Common and Sensitive Habitats.** *This impact is the same as Impact 12.A-1 described above for Alternative A. The project site does not support sensitive habitats. Implementation of Alternative C would result in the loss or disturbance of approximately 6.2 acres of Sierran mixed conifer forest, a common habitat in the project region.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

IMPACT 12.C-2 **Vegetation Removal.** *This impact is the same as Impact 12.A-2 described above for Alternative A. Buildout of Alternative C would result in the conversion of approximately 6.2 acres of Sierran mixed conifer forest to buildings, walkways, driveways, parking, and landscaping. Because vegetation removed would exceed 50% of the existing on-site vegetation, this would be a potentially significant impact.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.C-2. Develop and Implement a Revegetation Plan.*

Significance after Mitigation *Less Than Significant*

IMPACT 12.C-3 **Tree Removal.** *Buildout of Alternative C would result in the loss of approximately 123 individual trees between 6 and 29 inches dbh.*

Significance *Potentially Significant*

Mitigation *Mitigation Measure 12.C-3. Minimize Tree Removal, Develop a Tree Management Plan, and a Tree Replacement Plan.*

Significance after Mitigation *Less Than Significant*

As described above for Alternative A, the project site supports approximately 292 trees greater than 6 inches dbh. Alternative C would result in the removal of approximately 123 trees between 6 and 29 inches dbh (see Table 12-3), totaling approximately 42 % of the existing trees on the site (Exhibit 4-4). Of the 123 trees to be removed with Alternative C, 25 of those trees are already authorized for removal under TRPA Permit No. 2937 for forest health reasons, but remain in place to serve as barrier trees offering protection to other healthy trees on site. Alternative C would not result in the removal of any tree measuring 30" dbh or greater. Based on TRPA, Placer County, and CDF regulations, anticipated tree removal associated with construction of Alternative C would result in a potentially significant impact.

IMPACT 12.C-4 **Wildlife Movement Corridors.** *This impact is the same as Impact 12.A-4 described above for Alternative A. No wildlife movement corridors have been identified on the site and no significant corridors are likely to exist.*

Significance *Less Than Significant*

Mitigation *No Mitigation is Required*

Significance after Mitigation *Less Than Significant*

Impact 12.C-5	Nesting Raptors and Migratory Birds. <i>This impact is the same as Impact 12.A-5 described above for Alternative A. Development of Alternative C could adversely affect nesting raptors and other migratory birds.</i>
Significance	<i>Potentially Significant</i>
Mitigation	<i>Mitigation Measure 12.C-5. Avoid Vegetation Removal During Nesting Season and Conduct Preconstruction Surveys.</i>
Significance after Mitigation	<i>Less Than Significant</i>
IMPACT 12.C-6	Special-Status Species and Common Wildlife. <i>This impact is the same as Impact 12.A-6 described above for Alternative A. Development of Alternative C could adversely affect special-status species or common wildlife. However, special-status species are not expected to occupy the project site and Alternative C would not threaten the viability of common species populations.</i>
Significance	<i>Less Than Significant</i>
Mitigation	<i>No Mitigation is Required</i>
Significance after Mitigation	<i>Less Than Significant</i>
IMPACT 12.C-7	Bat Species. <i>This impact is the same as Impact 12.A-7 described above for Alternative A. Development of Alternative C could adversely affect common bat species living in the project vicinity. Direct mortality and loss of roosting habitat would be a potentially significant impact.</i>
Significance	<i>Potentially Significant</i>
Mitigation	<i>Mitigation Measures 12.C-7. Conduct Bat Surveys and Prepare Bat Management Plan.</i>
Significance after Mitigation	<i>Less Than Significant</i>

ALTERNATIVE D—NO PROJECT

No development would occur under the No Project Alternative; therefore, there would be no impacts to habitat or wildlife, and no trees or vegetation would be removed.

12.3.3 MITIGATION MEASURES

ALTERNATIVE A—PROPOSED PROJECT

Mitigation Measure 12.A-2. Develop and Implement a Revegetation Plan.

Implementation of the following measures would reduce the conversion of vegetation at the project site to a less-than-significant level.

- ▶ A Revegetation Plan addressing all areas temporarily disturbed by project development shall be prepared by a qualified environmental professional (e.g., a licensed landscape architect, restoration specialist, Registered Professional Forester [RPF] or Certified Arborist with restoration qualifications, or similar qualified professional), and shall adhere to TRPA's landscaping and revegetation standards in the Code of Ordinances (Chapters 30 and 77) and Rules of Procedure. The Revegetation Plan shall be submitted to and approved by TRPA and the Placer County Department of Resource Conservation (DRC) prior to Final Map approval.

The site plan and construction plans shall be designed to minimize removal and disturbance to existing vegetation. The Revegetation Plan shall demonstrate how site development and construction planning minimizes the removal and disturbance of vegetation, and specify the extent and location of areas to be revegetated.

Construction and landscaping disturbance within all areas of vegetation to be retained shall be minimized. All areas of vegetation to be retained shall be fenced with sturdy, high-visibility protective fencing. This fencing shall be included on all site plans (e.g., Staging, Grading, Drainage, and Utility plans) and shall be depicted in the Revegetation Plan. Other minimization measures shall include clustering utilities in shared trenches, where feasible.

The Revegetation Plan shall include a plant list, a planting plan, planting and maintenance techniques, and measures to control the introduction or spread of invasive plants. All landscaping shall consist of native, drought-tolerant plant species from the TRPA-approved plant list, except for accent plants which can be adapted plants. Transplanting shall follow International Society of Arboriculture [ISA] and American National Standards Institute (ANSI) standard digging and transplanting techniques to ensure proper handling and successful transplanting of trees and other plants. A water-conserving irrigation system shall be installed by the project applicant.

- ▶ All vegetation protection obligations required herein and in the Tree Management Plan (TMP, discussed below) shall be incorporated into construction contracts. Vegetation installation shall be inspected and approved by TRPA and/or DRC staff prior to the issuance of a Certificate of Occupancy. Vegetation shall be installed with sufficient time to establish prior to the winter season. All areas not revegetated prior to the winter season shall be winterized according to requirements in Mitigation Measure 8.A-1a.
- ▶ A Vegetation Monitoring Plan (VMP) prepared and implemented by a qualified environmental professional shall be submitted to and approved by the TRPA and the County prior to Final Map approval. The VMP shall include monitoring protocols, including the protocol for evaluating vegetation health and vigor. A monitoring report detailing vegetation success shall be submitted annually to the TRPA and the County for a minimum period of 5 years. Any revegetation falling below an 85% survival rate shall be replaced by the project applicant. Mitigation and monitoring of replacement revegetation shall continue until it satisfies the criteria for successful establishment. Criteria for successful establishment shall include survivorship for a period of at least 5 years.
- ▶ If on-site avoidance and revegetation retains or restores a minimum of 50% of the project site to native conditions, no further mitigation is required. If on-site disturbance permanently removes over 50% of the area

of existing vegetation at the site, off-site revegetation in accordance with TRPA Code of Ordinances Chapters 30 and 77 shall be required. The restored off-site area shall be equivalent in ecological value to that portion of the project site beyond 50% that would be disturbed, shall be within the north Tahoe Basin as close to the project site as possible, and shall be preserved in perpetuity by a conservation easement, deed restriction, or other similar mechanism.

A Revegetation Plan and a Vegetation Monitoring Plan, prepared as described above, shall be created for this off-site revegetation as well, and shall be submitted to and approved by Placer County and TRPA prior to tree removal or the issuance of a Grading Permit. This off-site restoration may be combined with off-site tree revegetation required by Mitigation Measure 12.A-3, if the site chosen for off-site tree revegetation would be equivalent in ecological value (following revegetation) as that lost at the project site.

Mitigation Measure 12.A-3. Minimize Tree Removal, Develop a Tree Management Plan, and a Tree Replacement Plan.

Implementation of the following measures would reduce the impacts of project-related tree removal to a less-than-significant level.

The project shall minimize, to the maximum extent feasible, the removal of trees, especially any incense cedars, sugar pines, ponderosa pines, or any specimen trees or snags identified by a Certified Arborist or RPF. Any unavoidable impacts to trees shall be mitigated with the following measures.

- ▶ Before tree removal occurs, a Timber Harvest Plan (THP) shall be prepared by an RPF, and shall be submitted to CDF for review and approval. If the THP includes trees to be removed that were not indicated by a TRPA permit (TRPA permit # 2937), a copy of the THP shall also be submitted to TRPA for review. An Exemption from Timberland Conversion Permit for Subdivision shall also be obtained from CDF.
- ▶ A Tree Management Plan (TMP) shall be prepared by a qualified environmental professional (i.e., a restoration specialist, Registered Professional Forester (RPF) or Certified Arborist with restoration qualifications, or similar qualified professional), and shall be submitted to a TRPA RPF or other qualified TRPA professional and to Placer County for review and approval, prior to Tentative Map approval. Alternatively, if the THP prepared for CDF meets the requirements described in this mitigation measure, the THP may be submitted to TRPA and Placer County for review and approval in lieu of a separate TMP.

The TMP shall adhere to the provisions in the TRPA Code of Ordinances Chapter 71, including the preservation of individual incense cedar trees (71.4.A-4), and other identified specimen trees where practicable. The plan shall include protection measures for snags and coarse woody debris as appropriate and feasible for an urban area. In accordance with the TRPA Threshold Standards for Common Vegetation, the plan shall maintain relative species richness, relative abundance, and relative age class as appropriate and feasible within an urban area, to contribute to the attainment of the region-wide Threshold Standard.

Permanent disturbance (i.e., disturbance following project construction caused by the proposed land use changes) and temporary disturbance (i.e., disturbance from construction activities) of all trees to be preserved that are 6 inches in dbh (or 10 inches dbh aggregate for multi-trunk trees) shall be minimized. This shall include minimizing cuts, fills, grade changes, paving or other coverage, soil compaction, and landscaping impacts within the critical root zone of all trees, as determined by a qualified environmental professional. Creation of detailed site plans and construction documents shall be coordinated with a qualified environmental professional to minimize permanent and temporary disturbance. The TMP shall demonstrate how site development design will minimize the permanent disturbance of all trees to be preserved, and how construction planning will minimize temporary disturbance of all trees to be preserved. The TMP shall include the following requirements.

To minimize permanent disturbance, utilities shall be clustered and shall be designed so as to avoid crossing in the root zone of trees to be protected, unless the utilities are installed by drilling under the root zones to avoid impacts associated with cutting roots. Feasibility of drilling under trees will be based on soil conditions. Pervious surfaces shall be used in the root zone whenever possible, and any uses or activities that encourage compaction (e.g., informal parking, trails) shall be avoided within the root zone. Snow storage areas shall be sited such that snow removal activities will not pose a risk of damage to preserved trees, and so that excessive snow-melt does not over-saturate the root zone of trees to be preserved.

To minimize temporary disturbance, the TMP shall provide for vegetation protection during construction in accordance with TRPA Code of Ordinances Chapters 65 and 30. Protection measures shall include the following, at a minimum:

1. Sturdy high-visibility protective fencing shall be installed at the limits of construction (including all grading, road improvements, underground utilities, staging, storage, parking, or other development activity), and outside of the critical root zone of all trees to be preserved that have critical root zones in the limits of construction, and that are 6 in inches dbh (or 10 inches dbh aggregate for multi-trunk trees). The critical root zone is defined here as the area within 10 feet of a tree's drip line. This fencing shall be included on all site plans (e.g., Staging, Grading, Drainage, and Utility plans) and shall be depicted in the TMP.
2. If grading, trenching, or transplanting is necessary within the root zone of trees to be preserved, the work will be supervised by a certified arborist, an RPF, or other qualified biologist, and the following measures shall be implemented: soil shall be removed in lines radial to, rather than tangential to the tree to avoid excessive ripping and shattering of roots; if root cutting cannot be avoided, roots shall be cut cleanly at a 90-degree angle; a minimum of 6 inches of soil or sand shall be placed over exposed cuts and roots to reduce soil desiccation until the area is back-filled; and native soil shall be used to back-fill all cuts.
3. All necessary pruning shall be performed under the supervision of a Certified Arborist or RPF.
 - All tree protection obligations required herein and in the TMP shall be incorporated into construction contracts. Tree protection measures shall be installed, and shall be inspected by staff from the Placer County Department of Public Works and TRPA prior to issuance of a grading permit.
 - A Tree Replacement Plan shall be prepared by a qualified environmental professional, in accordance with TRPA Code of Ordinances Chapters 30 and 77. This plan shall be submitted to and approved by Placer County and a TRPA RPF or other qualified TRPA professional prior to tree removal or the issuance of a Grading Permit.

Replacement shall be required for all native trees removed that are 6 inches in dbh or larger, native multi-trunk trees with an aggregate diameter of 10 inches in dbh or greater, and such native trees with disturbance to their critical root zone. Compensation shall be provided on a three to one basis, or as specified by TRPA at the time of issuance of the tree permit. Trees shall be replaced with trees grown in 5-gallon containers, or the functional equivalent, using native species appropriate for the selected revegetation site to contribute to the attainment of the TRPA common vegetation Threshold Standard region wide. Trees that shall be removed for project development, that are also recommended for thinning in the TMP for fire safety, or the 25 trees recommended for removal for forest health reasons in TRPA Permit No. 2937 but that remain in place on site to serve as barrier trees offering protection to other healthy trees, shall not require replacement. Trees to be planted should be outside recommended defensible space distances.

The Tree Replacement Plan shall include a plant list, a description of appropriate planting stock for new trees, a planting plan, planting and maintenance techniques, and measures to control the introduction or spread of

invasive plants. Transplanting will follow International Society of Arboriculture [ISA] standard digging and transplanting techniques to ensure proper handling and successful transplanting of trees and vegetation.

To compensate for the potential loss of trees that incur disturbance within their critical root zones, all such trees shall be monitored for a period of at least 7 years, in conjunction with the monitoring program described below. Any tree that does not survive shall be replaced on a three to one basis, and likewise monitored for a period of 7 years.

Tree replacement may occur on-site if remaining undeveloped project areas can support additional trees, as determined by a qualified environmental professional. If the remaining undeveloped project areas cannot support sufficient plantings, off-site replacement shall be required. Off-site replacement shall occur in areas in need of additional trees, shall be located as close to the project site as possible, and shall be preserved in perpetuity by a conservation easement, deed restriction, or other similar mechanism.

- ▶ A Certified Arborist, an RPF, or other qualified biologist shall inspect the results of construction activities to document which trees were removed by grading and construction, and to document disturbance to preserved trees. This documentation shall be provided to the County and TRPA, and the total number of trees to be replanted, as described in the Tree Replacement Plan, shall be modified as necessary to reflect the actual tree removal and disturbance that occurs during construction.
- ▶ Tree replacement installation shall be inspected and approved by TRPA and/or County staff prior to the issuance of a Certificate of Occupancy.
- ▶ A VMP shall be prepared and implemented by a Certified Arborist, an RPF, or other qualified biologist, for areas to be revegetated as mitigation. The VMP shall be submitted to and approved by the County and a TRPA RPF or other qualified TRPA professional prior to Final Map approval. This plan shall include monitoring protocols, including the protocol for evaluating tree health and vigor. A monitoring report detailing vegetation success shall be submitted annually to the County and the TRPA through the monitoring period, for a minimum period of 5 years. The mitigation and monitoring of a replaced tree shall continue until it satisfies the criteria for a successfully established sapling, dies, or is otherwise no longer part of a mitigation effort. Criteria for successful establishment shall include survivorship for a period of at least 5 years, with at least 2 years without supplemental watering.

Mitigation Measure 12.A-5. Avoid Vegetation Removal During Nesting Season and Conduct Preconstruction Surveys.

To the extent feasible, the project applicant shall avoid removing vegetation during the peak nesting season (approximately March 1 through August 15).

If vegetation that could support nesting birds is to be removed during the nesting season, the project applicant shall retain a qualified biologist to conduct two focused preconstruction surveys for active nest sites of raptors on the project site. These surveys shall be conducted within 14 days of vegetation removal initiated during the nesting season. In addition, two focused preconstruction surveys shall be conducted within 14 days of grading initiated during the nesting season. If grading immediately follows tree removal, two focused preconstruction surveys within 14 days of initiating tree removal shall be sufficient.

If an active raptor nest is located during the preconstruction surveys, the County, TRPA, DFG, and/or USFWS shall be notified, as appropriate to the species and its status. Vegetation removal and construction shall be delayed within 500 feet of the nest to avoid disturbance until the nest is no longer active. If nesting northern goshawk is found, vegetation removal and construction shall be delayed within 2,640 feet (0.5 mile) of the nest to avoid disturbance until the nest is no longer active. The buffer may be altered through consultation with the County, TRPA, and/or the appropriate agency (depending on the species found).

If any active nests of other birds protected under the Migratory Bird Treaty Act are found during surveys for special-status birds and raptors, the County and TRPA shall be notified. Removal of an active nest site shall be delayed until the nest is no longer active.

Mitigation Measure 12.A-7. Conduct Bat Surveys and Prepare Bat Management Plan.

Prior to vegetation removal or demolition of existing structures, a visual and/or acoustical bat survey shall be conducted by a qualified biologist. If any bat roosts are identified, a Bat Management Plan shall be developed. The Bat Management Plan shall include recommendations for passively relocating bats. Passive relocation from a site typically involves first constructing artificial roosting habitat features (e.g., “bat boxes”) nearby to provide local populations with replacement habitat, then excluding bats from the occupied roosting site to be removed. Techniques for excluding bats involve sealing (e.g., with aluminum screening or other material) roost entrances after bats have exited the roost to forage.

ALTERNATIVE B—REDUCED DEVELOPMENT

Mitigation Measure 12.B-2. Develop and Implement a Revegetation Plan.

See Mitigation Measure 12.A-2 described above for Alternative A. The same mitigation measure would apply.

Mitigation Measure 12.B-3. Minimize Tree Removal, Develop a Tree Management Plan, and a Tree Replacement Plan.

See Mitigation Measure 12.A-3 described above for Alternative A. The same mitigation measure would apply.

Mitigation Measure 12.B-5. Avoid Vegetation Removal During Nesting Season and Conduct Preconstruction Surveys.

See Mitigation Measure 12.A-5 described above for Alternative A. The same mitigation measure would apply.

Mitigation Measure 12.B-7 Conduct Bat Surveys and Prepare Bat Management Plan.

See Mitigation Measure 12.A-7 described above for Alternative A. The same mitigation measure would apply.

ALTERNATIVE C—REDUCED DEVELOPMENT WITH RECREATION ELEMENTS

Mitigation Measure 12.C-2. Develop and Implement a Revegetation Plan.

See Mitigation Measure 12.A-2 described above for Alternative A. The same mitigation measure would apply.

Mitigation Measure 12.C-3. Minimize Tree Removal, Develop a Tree Management Plan, and a Tree Replacement Plan.

See Mitigation Measure 12.A-3 described above for Alternative A. The same mitigation measure would apply.

Mitigation Measure 12.C-5. Avoid Vegetation Removal During Nesting Season and Conduct Preconstruction Surveys.

See Mitigation Measure 12.A-5 described above for Alternative A. The same mitigation measure would apply.

Mitigation Measures 12.C-7. Conduct Bat Surveys and Prepare Bat Management Plan.

See Mitigation Measure 12.A-7 described above for Alternative A. The same mitigation measure would apply.

ALTERNATIVE D—NO PROJECT

No mitigation is required.