

APPENDIX L

Special-Status Species Tables

SPECIAL-STATUS SPECIES TABLES

Table L-1 Special-Status Plant Species Considered for the Sierra Colina Village Project				
Common Name and <i>Scientific Name</i>	Regulatory Status ¹		Habitat and Flowering Period	Potential for Occurrence
	Federal	Other		
Washoe tall rockcress <i>Arabis rectissima</i> var. <i>simulans</i>	FSSI	NNPS-T	Jeffrey pine-fir forest on gentle slopes, in gently disturbed areas, on sandy granitic or andesitic soil; 6,000–7,400 ft. elev. Blooms June-July.	Not present. Nearest known occurrences are along the eastern shore of Lake Tahoe in Douglas County. Species was not found during surveys conducted for it in 2007 (Dains 2007).
Galena Creek rockcress <i>Arabis rigidissima</i> var. <i>demota</i>	FSS	TRPA, NNPS-W	Fir- pine-quaking aspen associations, meadow edges, usually on north-facing slopes and rocky outcrops; 7,000–9,900 ft. elev. Blooms August.	Not present. No suitable forest habitat present on the project site. Nearest occurrences are along the north shore of Lake Tahoe, outside of Douglas County. Species was not found during surveys conducted for it in 2007 (Dains 2007).
Upswept moonwort <i>Botrychium ascendens</i>	FSS	NNPS-W	Coniferous forest in mesic substrates such as springs; 5,000–7,500 ft. elev. Fertile in August.	Not expected to occur. No suitable mesic forest habitat present on the project site.
Scalloped moonwort <i>Botrychium crenulatum</i>	FSS, N	NNPS-W	Bogs and fens, lower montane coniferous forest, meadows and seeps, freshwater marshes and swamps; 5,000–11,000 ft. elev. Fertile July–August.	Not expected to occur. No suitable mesic forest habitat present on the project site.
Slender moonwort <i>Botrychium lineare</i>	FSS		Upper montane coniferous forest, often in disturbed areas; 8,500 ft. elev. Fertile period not known.	Not expected to occur. No suitable forest habitat present on the project site; elevations of known occurrences exceed those on the project site.
Common moonwort <i>Botrychium lunaria</i>	FSS		Subalpine and upper montane coniferous forest, meadows and seeps; 7,500–11,200 ft. elev. Fertile in August.	Not expected to occur. No suitable mesic forest habitat present on the project site; elevations of known occurrences exceed those on the project site.
Mingan moonwort <i>Botrychium minganense</i>	FSS		Lower montane and upper montane coniferous forest in mesic soils; 5,000–7,000 ft. elev. Fertile July - Sept.	Not expected to occur. No suitable mesic forest habitat present on the project site.
Western goblin <i>Botrychium montanum</i>	FSS		Lower montane and upper montane coniferous forest in mesic soils; 5,000–7,000 ft. elev. Fertile July - Sept.	Not expected to occur. No suitable mesic forest habitat present on the project site.
Bolander's candle moss <i>Bruchia bolanderi</i>	FSS		Lower montane coniferous forest in mesic soils; 5,600–9,000 ft. elev. Fertile period not specified.	Not expected to occur. No suitable mesic forest habitat present on the project site.

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Common Name and <i>Scientific Name</i>	Regulatory Status ¹		Habitat and Flowering Period	Potential for Occurrence
	Federal	Other		
Tahoe draba <i>Draba asterophora</i> var. <i>asterophora</i>	FSS	TRPA, NNPS-W	Alpine boulder and rock fell field, subalpine coniferous forest; 8,200–10,500 ft. elev. Blooms July – Sept.	Not expected to occur. No suitable subalpine habitat present on the project site; elevations of known occurrences exceed those on the project site.
Cup Lake draba <i>Draba asterophora</i> var. <i>macrocarpa</i>	FSS	TRPA	Subalpine coniferous forest; 8,200–9,200 ft. elev. Blooms July–August.	Not expected to occur. No suitable subalpine habitat present on the project site; elevations of known occurrences exceed those on the project site.
Subalpine fireweed <i>Epilobium howellii</i>	FSS		Subalpine coniferous forest, meadows and seeps; 6,500–8,500 ft. elev. Blooms July–August.	Not expected to occur. No suitable subalpine or meadow habitat present on the project site; no occurrences known from the southern side of the Tahoe Basin.
Starved daisy <i>Erigeron miser</i>	FSS		Upper montane coniferous forest in rocky soils; 6,000–8,600 ft. elev. Blooms June–Oct.	Not expected to occur. Coniferous forest habitat present on the project site is not suitable; no occurrences known from the southern side of the Tahoe Basin.
Torrey buckwheat <i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	FSS		Rocky, volcanic substrate in meadows and upper montane coniferous forest. 6,000–8,600 ft. elev. Blooms July–Sept.	Not expected to occur. No volcanic substrate and suitable forest habitat present on the project site.
Short-leaved hulsea <i>Hulsea brevifolia</i>	FSS		Lower and upper montane coniferous forest often on slate; 5,000-10,500 ft. elev. Blooms May–August.	Not expected to occur. No suitable coniferous forest and substrate habitat present on the project site.
Long-petaled lewisia <i>Lewisia longipetala</i>	FSS	TRPA	Alpine boulder and rock field, subalpine coniferous forest; 8,200–9,900 ft. elev. Blooms July – August.	Not expected to occur. No suitable subalpine habitat present on the project site; elevations of known occurrences exceed those on the project site.
Three-ranked hump moss <i>Meesia triquetra</i>	FSS	NNPS-W	Bogs and fens, meadows and seeps, upper montane coniferous forest on mesic soil; 4,200–8,200 ft. elev. Fertile period not specified.	Not expected to occur. No suitable forest or meadow habitat present on the project site.
Broad-nerved hump moss <i>Meesia uliginosa</i>	FSS		Bogs and fens, meadows and seeps, upper montane coniferous forest on mesic soil; 4,200–8,200 ft. elev. Fertile period not specified.	Not expected to occur. No suitable forest or meadow habitat present on the project site.
Veined water lichen <i>Peltigera hydrothyria</i>	FSS		Cold unpolluted streams and springs in coniferous forest.	Not expected to occur. No suitable forest or aquatic habitat present on the project site.

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Common Name and <i>Scientific Name</i>	Regulatory Status ¹		Habitat and Flowering Period	Potential for Occurrence
	Federal	Other		
Tahoe yellow cress <i>Rorippa subumbellata</i>	FC, FSS	TRPA, NNPS-T	Decomposed granitic beaches; 6,217–6,234 ft. elev. Blooms May–Sept.	Not expected to occur. Narrowly restricted and endemic to the sandy shores of Lake Tahoe.
<p>¹Regulatory Status Codes:</p> <p>Federal: FC = Federal candidate for listing FT = Federal Threatened FSS = Forest Service Sensitive FSSI = Forest Service Species of Interest</p> <p>Other: TRPA = TRPA sensitive/threshold species NNPS –W = Nevada Native Plant Society watch list NNPS –T = Nevada Native Plant Society threatened</p> <p>Potential Occurrence Definitions <i>Present</i> – Species was observed during site visits conducted for this analysis or was documented on the site by another reputable source. <i>High</i> – All of the species’ specific life history requirements can be met by habitat present on the site, and populations are known to occur in the immediate vicinity. <i>Moderate</i> – 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 (Tahoe Basin). <i>Low</i> – Species not likely to occur due to marginal habitat quality or distance from known occurrences. <i>Not expected to occur</i> – None of the species’ life history requirements are provided by habitat on the site and/ or the site is outside of the known distribution for the species. Any occurrence would be very unlikely. Sources: NNHP 2004, 2001; LTBMU 2006; TRPA 2002; USFWS 2006</p>				

Table L-2 Special-Status Wildlife Species Considered for the Sierra Colina Village Project					
Common Name and <i>Scientific Name</i>	Regulatory Status ¹			Habitat Associations	Potential for Occurrence
	Federal	State	Other		
Amphibians					
Yosemite toad <i>Bufo canarus</i>	FC			Endemic California toad found in wet meadows between 4,000-12,000 feet in the Sierra Nevada from Alpine Co. south to Fresno Co.	Not expected to occur. Outside of the known range for the species.
Mountain yellow-legged frog <i>Rana muscosa</i>	FC, FSS			Occurs in upper elevation lakes, ponds, bogs, and slow-moving alpine streams. Most Sierra Nevada populations are found between 6,000 and 12,000 feet elevation. Almost always found within one meter of water, and associated with montane riparian habitats in lodgepole pine, ponderosa pine, Jeffrey pine, sugar pine, white fir, whitebark pine, and wet meadow vegetation types. Alpine lakes inhabited by mountain yellow-legged frogs generally have grassy or muddy margin habitat, although below treeline sandy and rocky shores may be preferred. Suitable stream habitat can be highly variable, from high gradient streams with plunge pools and waterfalls, to low gradient sections through alpine meadows. Low gradient streams are preferred, since breeding and tadpole development cannot occur in streams with fast-moving water. Small streams are generally unoccupied and have no potential breeding locations due to the lack of depth for overwintering and refuge. While mountain yellow-legged frogs have been observed successfully breeding in shallow locations less than two meters deep, typically depth is an important factor for breeding locations since adults and larvae require overwintering habitat. For up to nine months, adults and larvae will live/hibernate below ice, or in non-frozen portions of ponds or lakes, so adequate depth (>2m) is necessary to avoid having the pond or lake freeze through.	Low. The only known population in the Tahoe Basin occurs at Hell Hole bog, approximately 10 miles S-SW of the project site. No suitable breeding habitat present in project vicinity. Some suitable aquatic habitat present for seasonal or migratory use.
Northern leopard frog <i>Rana pipiens</i>	FSS	NFP		Usually occurs in permanent water with abundant aquatic vegetation. Associated with wet meadows, marshes, slow-moving streams, bogs, ponds, potholes, and reservoirs.	Not expected to occur. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).

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Common Name and <i>Scientific Name</i>	Regulatory Status ¹			Habitat Associations	Potential for Occurrence
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Birds					
Bald eagle <i>Haliaeetus leucocephalus</i>	FT	NFP	TRPA	Uses ocean shorelines, lake margins, and river courses for both nesting and wintering. Most nests are within 1 mile of water in large trees with open branches. Roosts communally in winter.	Not expected to occur. Project site and vicinity contains few large-diameter trees suitable for nesting or perching, and high disturbance levels. Individuals may forage and perch occasionally in project vicinity.
Osprey <i>Pandion haliaetus</i>			TRPA	Associated strictly with large fish-bearing waters. Nest usually within 0.25 mile of fish-producing water, but may nest up to 1.5 mile from water. In the Tahoe basin, osprey nests are distributed primarily along the Lake Tahoe shoreline at the northern portion of the east shore and southern portion of the west shore. Other osprey nest sites in the Basin occur along the shorelines of smaller lakes (e.g., Fallen Leaf Lake), and in forest uplands up to 1.5 miles from lakes.	Low. Project site and vicinity may occasionally be used for perching, but high disturbance levels, marginal habitat conditions would likely prevent nesting there. Nesting by this conspicuous species was not observed during recent surveys of the project site.
Northern goshawk <i>Accipiter gentilis</i>	FSS	NFP	TRPA	In the Sierra Nevada, generally requires mature conifer forests with large trees, snags, downed logs, dense canopy cover, and open understories for nesting; aspen stands are also used for nesting. Foraging habitat includes forests with dense to moderately open overstories, and open understories interspersed with meadows, brush patches, riparian areas, or other natural or artificial openings. Goshawks reuse old nest structures and maintain alternate nest sites.	Low. Surveys conducted in 2006 and 2007 did not detect any goshawks (Wildlife Resources Consultants 2006, 2007); and suitable breeding habitat is not present on or adjacent to the project site (Wildlife Resource Consultants 2006, Kelchlin pers. comm. 2006). A historic goshawk territory (Roundhill/Burke Creek territory) is located just east of the site; these historic nest sites associated with this territory are located 0.28 – 0.62 mile east of the project site boundary. Although a goshawk was detected in this territory during dawn acoustical surveys in 2005, nesting within this territory has not been documented since 1992 (Young and Morrison 2007). Although goshawk could occasionally forage or perch on the foraging, this species does not nest there.

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Common Name and <i>Scientific Name</i>	Regulatory Status ¹			Habitat Associations	Potential for Occurrence
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California spotted owl <i>Strix occidentalis occidentalis</i>	FSS			Occurs in several forest vegetation types, including mixed conifer, ponderosa pine, red fir and montane hardwood. Nesting habitat is generally characterized by dense canopy closure (i.e., >70%) with medium to large trees and multi-storied stands (i.e., at least two canopy layers). Foraging habitat can include intermediate to late-successional forest with greater than 40% canopy cover.	Low. Suitable breeding habitat not present.
Great gray owl <i>Strix nebulosa</i>	FSS			Found in Central Sierra mature mixed conifer forests near meadows. Scattered along the west slope of the Sierra between 4500-7500 ft from Plumas County to Yosemite National Park.	Not expected to occur. Suitable habitat is not present on the project site. Habitat with biophysical attributes considered suitable for great gray owl (e.g., meadows bordered by large trees) occurs near the project site. However, these areas experience high disturbance levels; and the historic or present occurrence of great gray owl in the Tahoe Basin has not been confirmed.
Willow flycatcher <i>Empidonax traillii</i>	FSS			In the Sierra Nevada, suitable habitat typically consists of montane meadows that support riparian deciduous shrubs (particularly willows) and remain wet through the nesting season (i.e., mid-summer). Important characteristics of suitable meadows include a high water table that results in standing or slow-moving water, or saturated soils (e.g., “swampy” conditions), during the breeding season; abundant riparian deciduous shrub cover (particularly willow); and riparian shrub structure with moderate to high foliar density that is uniform from the ground to the shrub canopy. Most breeding occurrences are in meadows larger than 19 acres, but average size of occupied meadows is approximately 80 acres. Although less common in the Sierra Nevada, riparian habitat along streams can also function as suitable habitat for willow flycatcher. However, those areas must support the hydrologic and vegetation characteristics described for suitable meadows (e.g., standing or slow-moving water, abundant and dense riparian vegetation).	Low. Wet meadow habitat on eastern edge of the project site includes some biophysical conditions considered suitable for willow flycatcher (e.g., moderate willow cover, slow-moving water). However, habitat area there is relatively small; and this species is rare and not known to occur in this portion of the Tahoe Basin.

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Common Name and <i>Scientific Name</i>	Regulatory Status ¹			Habitat Associations	Potential for Occurrence
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Golden eagle <i>Aquila chrysaetos</i>			TRPA	Mountains and foothills throughout California. Nests on cliffs and escarpments or tall trees.	Low. No suitable breeding habitat in either project vicinity or project site. May occasionally pass through or forage in project vicinity.
Waterfowl species (collectively)			TRPA	Wetlands and waters such as lakes, creeks, drainages, marshes, and wet meadows.	Moderate. Wet meadow, stream, and riparian habitats provide some suitable habitat for small numbers of waterfowl.
Peregrine falcon <i>Falco peregrinus</i>			TRPA	Nests and roosts on protected ledges of high cliffs, usually adjacent to water bodies and wetlands that support abundant avian prey.	Not expected to occur. No suitable nesting habitat present within project vicinity.
Mammals					
Pale Townsend's big-eared bat <i>Corynorhinus townsendii pallescens</i>	FSS			Ranges throughout California mostly in mesic habitats. Limited by available roost sites, such as caves, tunnels, mines, and buildings.	Not expected to occur. Until 2007, no occurrences reported within Tahoe Basin (Schlesinger and Romsos 2000). However, this species was detected in Blackwood Canyon and Cookhouse Meadow in 2007 (Roth pers. comm. 2008).
Fringed myotis <i>Myotis thysanodes</i>		NFP		Optimal habitat includes pinyon-juniper, valley foothill hardwood, and hardwood-conifer. Uses open habitats, streams, lakes, and ponds as foraging areas. Roosts in caves, mines, buildings, and crevices.	Low. No suitable roosting habitat present within the project site. May occasionally forage in project site or vicinity.
Northern flying squirrel <i>Glaucomys sabrinus</i>		NFP		Coniferous and riparian-deciduous forests at approximately 5000-8000 feet.	Low. Mature forest and large trees absent from site. Individuals may occasionally use site, but nest sites are unlikely.
California wolverine <i>Gulo gulo luteus</i>	FSS			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. Suitable habitat not present on the project site. Very few documented occurrences in the region.

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Common Name and <i>Scientific Name</i>	Regulatory Status ¹			Habitat Associations	Potential for Occurrence
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American marten <i>Martes americana</i>	FSS			Dense canopy conifer forest with large snags and downed logs. Prefers old growth stands with multiple age classes in vicinity.	Low. Marten occurs nearby in suitable habitat; however, suitable forest habitats not present on the project site, and the site is characterized by high disturbance levels.
Pacific fisher <i>Martes pennanti pacifica</i>	FC			Inhabits stands of pine, Douglas fir, and true fir, in northwestern California and Cascade-Sierra ranges. Fishers are considered extirpated throughout much of the Central and Northern Sierra Nevada (Zielinski et al. 1995).	Not expected to occur. No suitable habitat present. Species is considered extirpated from the Lake Tahoe Basin.
Sierra Nevada red fox <i>Vulpes vulpes necator</i>	FSS			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. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).
Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i>		NFP		Sierra Nevada mountain beavers use riparian habitats with soft, deep soils for burrowing, lush growth of preferred food sources such as willow and alder, and a variety of herbaceous species for bedding material. Vegetation types include wet meadows and willow-alder dominated riparian corridors, typically near water sources. Suitable riparian habitats are typically characterized by dense growth of small deciduous trees and shrubs near permanent water. Mountain beavers are generally solitary except during their short breeding season, and spend a high proportion of their time in extensive underground burrow systems with multiple openings, tunnels, and food caches.	Not expected to occur. Although some suitable habitat is present along Burke Creek, a survey conducted in 2007 did not locate any sign of mountain beaver presence on the site (Wildlife Resources Consultants (2007).

**Table L-2
Special-Status Wildlife Species Considered for the Sierra Colina Village Project**

Common Name and <i>Scientific Name</i>	Regulatory Status ¹			Habitat Associations	Potential for Occurrence
	Federal	State	Other		
Mule deer <i>Odocoileus hemionus</i>			TRPA	Yearlong resident or elevational migrant, prefers a wide distribution of various-aged vegetation for cover, meadow and forest openings, and free water. In the Sierra Nevada, early to mid-successional forests, woodlands, and riparian and brush habitats are preferred due to the greater diversity of shrubby vegetation and woody cover. In addition to forage, vegetative cover is critical for thermoregulation. Suitable habitat includes a mosaic of vegetation including forest or meadow openings, dense woody thickets and brush, edge habitat, and riparian areas. Fawning habitat, used by does during birth and by newborn fawns is of critical importance for reproductive success. A diversity of thermal cover, hiding cover, succulent forage, and water are needed during fawning. Optimal deer fawning habitat has been described as having moderate to dense shrub cover near forest cover and water, such as riparian zones. A source of surface water (e.g., creek or river) is especially important to mule deer. Typical fawning habitat varies in size, but an area of 5-26 acres is adequate, with optimal fawn-rearing habitat of around 400 acres.	Moderate. Suitable migratory and foraging habitat is present on the project site and on nearby USFS lands. Riparian and meadow habitat on the project site is not suitable for fawning due to disturbance levels and adjacent land uses.
¹ Regulatory Status Codes: Federal: FT =Listed as threatened under the ESA FC = Federal candidate for listing under the ESA FSS = Forest Service Sensitive			State: NFP = Nevada state fully protected under NRS 501, NAC 503 Other: TRPA =TRPA special interest/threshold species Sources: NNHP 2004, 2001; LTBMU 2006; TRPA 2002; USFWS 2002, 2006, CNDDDB 2006		
Potential Occurrence Definitions <i>Present</i> – Species was observed during site visits conducted for this analysis or was documented on the site by another reputable source. <i>High</i> – All of the species' specific life history requirements can be met by habitat present on the site, and populations are known to occur in the immediate vicinity. <i>Moderate</i> – 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 (Tahoe Basin). <i>Low</i> – Species not likely to occur due to marginal habitat quality or distance from known occurrences. <i>Not expected to occur</i> – None of the species' life history requirements are provided by habitat on the site and/ or the site is outside of the known distribution for the species. Any occurrence would be very unlikely.					

**Table L-3
Special-Status Fish Species Evaluated for the Sierra Colina Village Project**

<i>Scientific Name</i> and Common Names	Federal Legal Status*	Habitat Associations	Potential for Occurrence
<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. No suitable aquatic habitat is present.
<i>Oncorhynchus clarki henshawi</i> Lahontan cutthroat trout	FT	Historically occurred in Lake Tahoe and all accessible coldwater streams in the Lahontan Basin. Requires gravels and riffles for spawning and generally does not occur with other salmonids. Currently limited to a few tributaries of the Truckee, Carson, and Walker Rivers.	Not expected to occur. Species is currently being stocked in a number of Tahoe Basin lakes and rivers, but is otherwise absent from its former range. Burke Creek does not provide suitable habitat for this species due to limited habitat and abundance of potential barriers to movement, and presence of introduced species.
<p>Federal Legal Status Codes: FT = Federal Threatened, FSS = Forest Service Sensitive</p> <p>Potential Occurrence Definitions</p> <p>Present – Species was observed during site visits conducted for this analysis or was documented on the site by another reputable source.</p> <p>High – All of the species’ specific life history requirements can be met by habitat present on the site, and populations are known to occur in the immediate vicinity.</p> <p>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 (Tahoe Basin).</p> <p>Low – Species not likely to occur due to marginal habitat quality or distance from known occurrences.</p> <p>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 for the species. Any occurrence would be very unlikely.</p> <p>Sources: NNHP 2004, 2001; LTBMU 2006; TRPA 2002; USFWS 2002, 2006, CNDDDB 2006</p>			