

Biological Study

Hatchet Mountain Telecom Site



Prepared for:

Indian Springs Telecom LLC
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Prepared by:



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ENPLAN has completed a biological study addressing the proposed construction of a cell tower atop Hatchet Ridge. The Hatchet Mountain site (Figures 1a and 2a) is located near the intersection of Bunchgrass Lookout Road and Highway 299, approximately 10.5 miles southwest of Round Mountain, as shown on the Hatchet Mountain Pass USGS 7.5-minute quad (1990). The project area is within Shasta County APN 030-030-011. The area around the site is undeveloped, and consists primarily of timberlands. The site is zoned as "TP (Timber Production)" and is designated by the Shasta County General Plan as "Timberland." The site is privately owned.

The Hatchet Mountain site contains an existing antennae field. Construction will consist of a 50- by 50-foot fenced area (6-foot-tall, chain link with barbed wire) with a four-legged steel tower on individual concrete footings ($\pm 8' \times 8'$) within the fenced area. The tower will be approximately 150 feet tall, and will be located within an existing antennae field. The project will also include improvement to an existing driveway to access the new tower. In addition, construction at the Hatchet Mountain site will include an overhead powerline (± 87 feet) from the existing PG&E power pole to the proposed tower site.

Records Review

Records reviewed for this evaluation consisted of California Natural Diversity Data Base records (CNDDDB), in-house biological records, soils records maintained by the U.S. Department of Agriculture's Natural Resources Conservation Service, and National Wetlands Inventory (NWI) maps (U.S. Fish and Wildlife Service, no date). The CNDDDB records search covered a 10-mile radius around the study area (consisting of portions of the Skunk Ridge, Burney Falls, Roaring Creek, Chalk Mountain, Miller Mountain, Burney, Cassel, Montgomery Creek, Jacks Backbone, Hatchet Mountain Pass, Burney Mountain East, and Burney Mountain West quadrangles). Soil records maintained by the Natural Resources Conservation Service were reviewed to determine the soil types in the study area and their potential to support wetlands. The NWI map for the Hatchet Mountain Pass quadrangle was reviewed to determine if wetlands features have been previously mapped in the study area or surrounding vicinity.

Field Reconnaissance

ENPLAN conducted a field evaluation of the study area on June 26 and July 24, 2009. Most of the special-status species potentially occurring in the study area would have been evident at the time the fieldwork was conducted. The potential presence of species not readily identifiable during the field studies was determined on the basis of observed habitat characteristics.

Plant Communities/Wildlife Habitats

The project site occurs within an opening in the montane coniferous forest atop Hatchet Ridge, and is situated at approximately 5,300 feet above sea level. The site is sparsely populated by trees and shrubs. Trees present on or adjacent to the project site include white fir, ponderosa pine, and California black oak. The shrubs consist predominantly of green-leaved manzanita, hoary coffeeberry, and snowberry. The herbaceous layer is well developed, and is composed of an assortment of grasses,

wildflowers, and sedge, including needlegrass, bromes, lupines, diamond clarkia, Plumas County beard-tongue, and long-stoloned sedge.

Special-Status Species

Special-Status Plant Species

Review of California Natural Diversity Database (CNDDDB) records showed that no special-status plant species have been previously reported on the project site. As shown in Table 1, eighteen special-status plant species are known to occur in the project vicinity: Butte County morning glory, Callahan's mariposa lily, English Peak greenbriar, English sundew, hairy marsh hedge-nettle, little hulsea, long-haired star-tulip, long-leaved starwort, long-stiped campion, northern clarkia, profuse-flowered pogogyne, rattlesnake fern, Red Bluff dwarf rush, Santa Lucia dwarf rush, slender Orcutt grass, tufted loosestrife, woolly fruited sedge, and woolly meadowfoam. The potential for these species to utilize the tower site is discussed in Table 2. A checklist of vascular plant species observed during the botanical surveys is attached.

Potentially suitable habitat occurs on the site for Butte County morning glory, little hulsea, and long-stiped campion. These species would have been identifiable at the time the field surveys were conducted, but were not observed and are not expected to be present. However, one other special-status plant species, long-stoloned sedge, was observed during the botanical surveys of the project site.

Long-stoloned sedge occurs throughout the project site and is widespread in the immediate vicinity. Figure 3a shows lands on which the sedge is abundant; the sedge population extends well beyond the limits of the study area, but no attempt was made to delineate the full extent of the population. Project implementation would result in the unavoidable loss of a number of plants, although only a small portion of the population would be affected. This species is not state or federally listed, but is monitored by the California Native Plant Society (CNPS). Long-stoloned sedge is on the CNPS List 3 (Plants Rare, Threatened, or Endangered in California and Elsewhere), but has recently been recommended for reclassification as a List 4 species (Plants of Limited Distribution – A Watch List).

DFG recognizes that Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for state listing, and the Department recommends they be addressed in CEQA projects. However, a plant need not be in this Inventory to be considered a rare, threatened, or endangered species under CEQA. DFG recommends, and local governments may require, protection of regionally significant plants, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4. Although avoidance of long-stoloned sedge is encouraged by DFG, mitigation for the loss of plants is not currently required.

Loss of long-stoloned sedge plants shall be minimized through implementation of the following measures:

- A qualified botanist shall flag and map the extent of long-stoloned sedge populations in and adjacent to the study area; such work shall be conducted

during the plant's blooming period (April-July) and prior to initiation of construction.

- Under supervision of the qualified botanist, and in consultation with the construction project manager, temporary construction fencing shall be installed to protect long-stoloned sedge plants in the vicinity to the maximum extent feasible. The fencing shall be maintained throughout the duration of project construction.
- Stockpiling of materials and equipment shall not be allowed within the population boundary.

Special-Status Wildlife Species

Review of CNDDDB records showed that no special-status animal species have been previously reported on the project site. As shown in Table 1, sixteen special-status wildlife species are known to occur in the project vicinity: American badger, American peregrine falcon, bald eagle, bigeye marbled-sculpin, California wolverine, Casades frog, foothill yellow-legged frog, hardhead, northern goshawk, northern red-legged frog, osprey, Pacific fisher, Pit roach, rough sculpin, silver-haired bat, and western tailed frog. In addition, the CNDDDB records search identified four non-status wildlife species within the search radius: canary dusky snail, great blue heron, kneecap lanx, and scalloped juga. The potential for each of these species to utilize the project site is addressed in Table 2.

No special-status wildlife species were observed during the wildlife field surveys. However, based on habitat evaluation, one special-status wildlife species, silver-haired bat, could potentially roost on or adjacent to the project site.

Silver-haired bats primarily roost in hollow trees, snags, rock crevices, caves, and under bark. Tree removal could result in the minor loss of roosting habitat. However, because of the vast amount of suitable habitat elsewhere in the immediate vicinity, project implementation would have a minimal impact o bats.

Indirect impacts to special-status species which utilize aquatic habitats could occur if substantial quantities of sediment were to wash into downslope drainages. Implementation of Best Management Practices for erosion control and spill prevention would be required during project construction. Such measures may include limiting construction to the dry season; use of straw wattles, sediment fencing, and/or gravel berms to prevent sediments from entering downslope drainages; and revegetating disturbed sites upon completion of construction. Periodic monitoring of the erosion controls is required, and they must be maintained as needed. Given these existing requirements for erosion control, no indirect impacts on special-status species which utilize aquatic habitats are expected.

Table 1. Rarefind (CNDDDB) Report Summary

Rarefind (CNDDDB) Report Summary (August 2009 Data)

Listed Element	Quadrangle ¹											Status ²
	BF	RC	CM	MM	HM	BU	CA	MC	JB	BE	BW	
Animals												
American badger												SSC
American peregrine falcon				•								FD, SE
Bald eagle			•			•						FD, SE
Big-eye marbled sculpin			•									SSC
California wolverine			•			•					•	ST, SFP
Canary dusky snail	•											None
Cascades frog						•						SSC
Foothill yellow-legged frog			•									SSC
Great blue heron											•	None
Hardhead	•		•			•						SSC
Kneecap lanx	•					•						None
Northern goshawk		•	•		•						•	SSC
Northern red-legged frog						•						SSC
Osprey		•	•			•	•				•	SSC
Pacific fisher			•							•	•	FC, SSC
Pit Roach	•		•									SSC
Rough sculpin			•									ST
Scalloped juga	•					•						None
Silver-haired bat					•		•					SSC
Western tailed frog					•							SSC
Plants												
Butte County morning-glory		•	•		•			•				4.2
Callahan's mariposa-lily		•										1B.1
English Peak greenbriar		•	•		•							1B.3
English sundew						•						2.3
Hairy marsh hedge-nettle											•	2.3
Little hulsea											•	2.3
Long-haired star-tulip						•					•	1B.2
Long-leaved starwort						•						2.2
Long-stiped campion			•								•	1B.2
Northern clarkia		•						•				1B.3
Profuse-flowered pogogyne						•						1B.2
Rattlesnake fern		•										2.2
Red Bluff dwarf rush						•						1B.1
Santa Lucia dwarf rush									•		•	1B.2
Slender Orcutt grass						•						FT, SE, 1B.1
Tufted loosestrife						•						2.3
Woolly-fruited sedge			•									2.3
Woolly meadowfoam			•									4.2
Natural Communities												
Lower Pit River/Canyon River (hardhead/tule perch river)	•	•	•			•		•				NA
Northern basalt flow vernal pool						•						NA
Northern interior cypress forest								•			•	NA

Highlighting denotes the quadrangle in which the project site is located. No occurrences were reported inside the study radius in the Skunk Ridge quadrangle.

Table 1

¹Quadrangle Code

BF = Burney Falls

RC = Roaring Creek

CM = Chalk Mountain

MM = Miller Mountain

BU = Burney

CA = Cassel

MC = Montgomery Creek

JB = Jacks Backbone

HM = Hatchet Mountain Pass

BE = Burney Mountain East

BW = Burney Mountain West

Table codes continued below

Tqble 1

²Status Codes

Federal/State

FE = Federally Listed – Endangered

FT = Federally Listed – Threatened

FC = Federal Candidate Species

California Native Plant Society

1B.1 = Plants Rare, Threatened or Endangered in California and Elsewhere; Seriously Threatened in California

1B.2 = Plants Rare, Threatened or Endangered in California and Elsewhere; Fairly Threatened in California

1B.3 = Plants Rare, Threatened, or Endangered in California and Elsewhere; Not Very Endangered in California

2.2 = Plants Rare, Threatened or Endangered in California Only; Fairly Threatened in California

2.3 = Plants Rare, Threatened or Endangered in California Only; Not Very Threatened in California

3.2 = More Information is Needed; Fairly Threatened in California

4.2 = Plants of Limited Distribution – A Watch List; Fairly Threatened in California

FD = Federally Delisted

SE = State Listed – Endangered

ST = State Listed – Threatened

SSC = State Species of Concern (CDFG)

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
Wildlife		
American badger <i>Taxidea taxus</i>	Badgers are most commonly found in dry, open areas in shrub, forest, and herbaceous habitats, with friable soils. Badgers dig burrows in dry, sandy soil, usually in areas with sparse overstory. In the local area, badgers have been reported in the vicinity of Lassen Volcanic National Park.	The project site is a large, open area with dry, friable soils. However, no badgers or their dens were observed on the project site during the wildlife surveys. The American badger would thus not be present.
American peregrine falcon <i>Falco peregrinus anatum</i>	American peregrine falcons frequent water bodies in open areas with cliffs and canyons nearby for nesting. This falcon feeds and breeds near water. In Shasta County, this raptor is reported in forested areas to the east and north of Lake Shasta.	No large water bodies occur on or adjacent to the project site. No American peregrine falcons or their nests were observed during the wildlife surveys, nor is the species expected to nest on or adjacent to the project site.
Bald eagle <i>Haliaeetus leucocephalus</i>	The bald eagle requires large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles usually do not begin nesting if human disturbance is evident.	No large, permanent, fish-bearing water bodies occur on or adjacent to the project site. No bald eagles or their nests were observed during the wildlife surveys, nor are bald eagles expected to nest on or adjacent to the project site.
Bigeye marbled sculpin <i>Cottus klamathensis macrops</i>	Bigeye marbled sculpins generally inhabit large, clear, cool, spring-fed streams in the Pit River and Fall River basins, and are occasionally found in reservoirs. Bigeye marbled sculpins are often found in areas with aquatic vegetation and coarse substrates.	The project site lacks aquatic habitat. The bigeye marbled sculpin would thus not be present.
California wolverine <i>Gulo gulo luteus</i>	California wolverines occur in a variety of forest habitat types above 1,600 feet in elevation. Wolverines den in caves, cliffs, hollow logs, cavities underground or in snow, or in beaver lodges.	No suitable den sites occur on the project site for California wolverines. California wolverines were not observed during the wildlife surveys and are not expected to den on the site.
Canary dusky snail <i>Colligyrus convexus</i>	Canary dusky snails inhabit the undersides of boulders and cobbles in Burney Creek, Fall River, Pit River, Rising River, and Baum Lake.	The project site lacks aquatic habitat. The canary dusky snail would thus not be present.

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
Cascades frog <i>Rana cascadae</i>	In the Klamath Mountains and southern Cascades of Northern California, the Cascades frog is typically found above 5,000 feet in elevation. Cascades frogs inhabit alpine lakes, inlet and outlet streams to mountain lakes, ponds, and meadows.	The project site lacks aquatic habitat. The Cascades frog would thus not be present.
Foothill yellow-legged frog <i>Rana boylei</i>	Foothill yellow-legged frogs are typically found in partly-shaded, shallow streams and riffles with a rocky substrate in a variety of aquatic habitats. This frog needs at least some cobble-sized substrate for egg-laying. Foothill yellow-legged frogs generally prefer low to moderate gradient streams, especially for breeding and egg-laying, although juvenile and adult frogs may utilize moderate- to steep-gradient streams during summer and early fall.	The project site lacks aquatic habitat. The foothill yellow-legged frog would thus not be present.
Great blue heron <i>Ardea herodias</i>	Great blue herons nest in colonies along marshes, lake margins, tideflats, wet meadows, rivers, and streams. Great blue herons often nest in colonies in the tops of tall trees and snags. Uncommon nest sites include rock ledges, sea cliffs, and tule mats.	The project site lacks aquatic habitat. The great blue heron would thus not nest on the site.
Hardhead <i>Mylopharadon conocephalus</i>	Hardhead inhabit low to mid-elevation streams in the Sacramento River, San Joaquin River, and Russian River watersheds. Hardhead spawn in clear, deep pools, with rock substrate and low water flow.	The project site lacks streams. The hardhead would thus not be present.
Kneecap lanx <i>Lanx petteloides</i>	The kneecap lanx is an aquatic snail, endemic to perennial streams and rivers in the upper Sacramento River drainage. This snail associates with fast, cold, well-oxygenated water in cobble and boulder substrates.	The project site lacks aquatic habitat. The kneecap lanx would thus not be present.
Northern goshawk <i>Accipiter gentilis</i>	Northern goshawks generally nest on north-facing slopes near water in old-growth coniferous and deciduous forests. Goshawks use old nests and maintain alternate nest sites.	The project site is sparsely populated by trees and shrubs and is not near any large water bodies. No northern goshawks or their nests were observed on the project site during the wildlife surveys and the northern goshawk is not expected to nest on the site.

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
Northern red-legged frog <i>Rana aurora aurora</i>	Northern red-legged frog breeding habitat typically consists of permanent or temporary water bordered by dense grassy or shrubby vegetation. Habitat used by post-metamorphic frogs consists of patches of dense grassy or shrubby vegetation (e.g., willow thickets and dense sedge swales) that maintain significant substrate moisture. In California, the dense undergrowth created by sword ferns and sedges along streamside flats in coastal redwood forest is often used by adults and sub-adults.	The project site lacks aquatic habitat. Further, the northern red-legged frog is restricted to coastal areas of northern California. The northern red-legged frog would thus not be present. The species observed was likely a Cascades frog, misidentified as a northern red-legged frog.
Osprey <i>Pandion haliaetus</i>	Ospreys require large bodies of permanent water and suitable nest sites. Nesting occurs on large decadent trees or structures such as powerline towers, buildings, and bridges. Ospreys are primarily associated with pine and mixed-conifer habitats, although urban or suburban nests are not unusual.	No large, permanent, fish-bearing water bodies occur on or adjacent to the project site. No ospreys or their nests were observed during the wildlife surveys, nor are ospreys expected to nest on or near the project site.
Pacific fisher <i>Martes pennanti pacificus</i>	In California, Pacific fishers primarily inhabit mixed conifer forests composed of Douglas-fir and associated conifers, although they also are encountered frequently in higher elevation fir and pine forests, and mixed evergreen/broadleaf forests. Suitable habitat for Pacific fishers consists of large areas of mature, dense forest stands with snags and greater than 50 percent canopy closure.	The project site is sparsely populated by trees and shrubs, and does not provide suitable habitat for the Pacific fisher. No Pacific fishers or their dens were observed on the project site, nor is the species expected to den on the site.
Pit roach <i>Lavinia symmetricus mitrulus</i>	Pit roach inhabit the upper Pit River and tributary streams. Pit roach are found in deep pools with a slight current, and in association with mats of vegetation.	The project site lacks streams. Pit roach would thus not be present.
Rough sculpin <i>Cottus asperimus</i>	Rough sculpins are restricted to the Hat Creek and Fall River drainages, as well as the Pit River upstream of Burney. Rough sculpins are found predominantly in association with mud substrates of these drainages.	The project site lacks streams. The rough sculpin would thus not be present.
Scalloped juga <i>Juga occata</i>	The scalloped juga is an aquatic snail that associates with cold, swiftly flowing water over boulder-cobble substrates in the Pit River.	The project site lacks streams. The scalloped juga would thus not be present.

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
Silver-haired bat <i>Lasionycteris noctivagans</i>	Silver-haired bats occur in coastal and montane forests. Silver-haired bats roost in hollow trees, snags, rock crevices, caves, and under bark.	Although not observed during the wildlife surveys, silver-haired bats could roost in trees and shrubs which sparsely populate the project site.
Western tailed frog <i>Ascaphus truei</i>	Western tailed frogs inhabit perennial streams of low temperature. Such streams generally occur in late seral stage forests dominated by Douglas fir, redwood, Sitka spruce, and ponderosa pine.	The project site lacks aquatic habitat. The western tailed frog would thus not be present.
Plants		
Butte County morning glory <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	Butte County morning glory occurs in dry, open areas within lower montane coniferous forest. The morning glory is primarily found in Shasta, Tehama, and Butte counties, between 2,000 and 4,000 feet in elevation. Smaller populations are reported in Del Norte and Mendocino counties.	Openings in the montane coniferous forest provide suitable habitat for Butte County morning glory, and the plant has recently been found elsewhere on Hatchet Ridge. However, Butte County morning glory was not observed during the botanical surveys and is not expected to be present.
Callahan's mariposa lily <i>Calochortus syntrophus</i>	Callahan's mariposa lily occurs on rocky substrates in cis-montane woodlands and grasslands between 1,700 and 2,800 feet in elevation.	The project site is above the known elevation range of the species. Callahan's mariposa lily was not observed during the botanical surveys and is not expected to be present.
English Peak greenbriar <i>Smilax jamesii</i>	English Peak greenbriar occurs along streams and lake margins.	Lakes and streams do not occur on the project site. English Peak greenbriar was not observed during the botanical surveys and is not expected to be present.

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
English sundew <i>Drosera anglica</i>	English sundew occurs in bogs, fens, and wet meadows, between 4,200 and 6,600 feet in elevation in northeastern California.	Bogs, fens, and wet meadows do not occur on the project site. English sundew was not observed during the botanical surveys and is not expected to be present.
Hairy marsh hedge-nettle <i>Stachys palustris</i> ssp. <i>pilosa</i>	Hairy marsh hedge-nettle occurs in meadows and seeps in Great Basin scrub between 3,900 and 5,000 feet in elevation.	The project site lacks meadows, seeps, and Great Basin scrub. Hairy marsh hedge-nettle was not observed during the botanical surveys and is not expected to be present.
Little hulsea <i>Hulsea nana</i>	Little hulsea occurs on rocky or gravelly sites, or on volcanic soils in alpine boulder and rock fields or subalpine coniferous forests, at elevations above 7850 feet.	The project site is well below the elevation range of little hulsea. Little hulsea was not observed during the botanical surveys and is not expected to be present.
Long-haired star-tulip <i>Calochortus longebarbatus</i> var. <i>longebarbatus</i>	Long-haired star-tulip occurs in wet meadows or in grassy areas along drainages within lower montane coniferous forest.	The project site lacks wet meadows and drainages. Long-haired star-tulip was not observed during the botanical surveys and is not expected to be present.
Long-leaved starwort <i>Stellaria longifolia</i>	Long-leaved starwort occurs in meadows and seeps, as well as riparian woodland.	Meadows, seeps, and riparian woodlands do not occur on the project site. Long-leaved starwort was not observed during the botanical surveys and is not expected to be present.
Long-stiped campion <i>Silene occidentalis</i> ssp. <i>longistipitata</i>	Long-stiped campion occurs in chaparral and montane coniferous forests, particularly in dry, disturbed openings at elevations between 4,600 and 6,000 feet.	Openings in the montane coniferous forest provide suitable habitat for the long-stiped campion. However, the long-stiped campion was not observed during the botanical surveys and is not expected to be present.

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
Northern clarkia <i>Clarkia borealis</i> ssp. <i>borealis</i>	Northern clarkia inhabits chaparral, cis-montane woodland, and coniferous forests between 1,200 and 2,400 feet in elevation. The species often occurs in dry, rocky substrates along roads.	The project site is well above the elevation range of northern clarkia. Northern clarkia was not observed during the botanical survey and is not expected to be present.
Profuse-flowered pogogyne <i>Pogogyne floribunda</i>	Profuse-flowered pogogyne occurs in clay-bottomed vernal pools within sagebrush scrub or pine-juniper woodlands.	Vernal pools and pine-juniper woodlands do not occur on the project site. Profuse-flowered pogogyne was not observed during the botanical surveys and is not expected to be present.
Rattlesnake fern <i>Botrychium virginianum</i>	Rattlesnake fern occurs in bogs and fens.	Bogs and fens do not occur on the project site. Rattlesnake fern was not observed during the botanical surveys and is not expected to be present.
Red Bluff dwarf rush <i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush typically occurs along the edges of vernal pools and vernal drainages, or on clay-rich terrace soils. It generally occurs at elevations below 1,000 feet, but may be found at up to 3,400 feet in northeastern Shasta County.	Vernal pools or other suitable habitats for the Red Bluff dwarf rush do not occur on the project site. Red Bluff dwarf rush was not observed during the botanical surveys and is not expected to be present.
Santa Lucia dwarf rush <i>Juncus luciensis</i>	Santa Lucia dwarf rush occurs in vernal pools, meadows, and streamsid es between 1,000 and 6,200 feet in elevation.	The project site lacks vernal pools, meadows, and streams. Santa Lucia dwarf rush was not observed during the botanical surveys and is not expected to be present.
Slender Orcutt grass <i>Orcuttia tenuis</i>	Slender Orcutt grass inhabits vernal pools and similar habitat, occasionally on reservoir edges or stream floodplains, on clay soils with seasonal inundation in valley grassland to coniferous forest or sagebrush scrub.	No vernal pools or other habitats capable of supporting slender Orcutt grass occur on the project site. Slender Orcutt grass was not observed during the botanical surveys and is not expected to be present.

Table 2
Evaluation of the Potential for Special-Status Species and Other Species Identified by the CNDDB to Occur on the Project Site (*Hatchet Mountain*)

	Habitat Requirements	Potential to Occur on the Project Site
<p>Tufted loosestrife <i>Lysimachia thysiflora</i></p>	<p>Tufted loosestrife occurs in meadows and along lakes and streams, between 3,200 and 5,500 feet in elevation in Plumas and eastern Shasta counties.</p>	<p>The project site lacks meadows, lakes, and streams. Tufted loosestrife was not observed during the botanical surveys and is not expected to be present.</p>
<p>Woolly fruited sedge <i>Carex lasiocarpa</i></p>	<p>Woolly fruited sedge occurs in bogs, fens, marshes, and swamps.</p>	<p>Bogs, fens, marshes, and swamps do not occur on the project site. Woolly fruited sedge was not observed during the botanical surveys and is not expected to be present.</p>
<p>Woolly meadowfoam <i>Limnanthes floccosa</i> ssp. <i>floccosa</i></p>	<p>Woolly meadowfoam generally occurs in vernal pools, ditches, and ponds in valley foothill and grasslands, cismontane woodland, and chaparral, and generally occurs at elevations below 1,200 feet.</p>	<p>The project site lacks vernal pools, vernal swales, and ponds, and is well above the elevation range of woolly meadowfoam. Woolly meadowfoam was not observed during the botanical surveys and is not expected to be present.</p>

Sensitive Natural Communities

CNDDDB records show that three sensitive natural communities have been reported in the study vicinity: Northern Interior Cypress Forest, Northern Basalt Flow Vernal Pool, and Lower Pit River/Canyon River (Hardhead/Tule Perch River). As a result of the biological field surveys, it was determined that these communities, as well as aquatic habitats and riparian habitats, do not occur on the subject site and would not be impacted by project implementation.

Soils

According to the U.S. Department of Agriculture, Natural Resources Conservation Service, one soil unit, Obie-Mounthat complex, 30-50% slopes, is present at the proposed cell tower site¹. This soil unit is not hydric, nor does it contain inclusions of hydric soils².

Wetlands and Other Waters of the State/United States

Review of the NWI map for the Hatchet Mountain Pass quadrangle found that no wetlands or other waters of the State/United States have been mapped on the project site. ENPLAN inspected the site to document the presence of wetlands or other waters of the subject to the jurisdiction of the State/United States. The field inspection found no wetlands or other waters on the project site. Project implementation would have no adverse effects on federally protected wetlands.

Resource-Agency Permit Requirements

As the project site does not have wetlands or other waters subject to the jurisdiction of the State/United States, a Department of the Army permit from the Corps of Engineers, Water Quality Certification and/or a waiver of Waste Discharge Requirements from the Central Valley Regional Water Quality Control Board, and a Streambed Alteration Agreement from the California Department of Fish and Game are not required. As for all projects resulting in disturbance of more than one acre, a Notice of Intent/General Construction Activity Storm Water Permit (and Storm Water Pollution Prevention Plan) will be required prior to construction. Various other permits and approvals may also be required by other agencies.

Woodlands/Timberlands

The project site is sparsely populated with trees and shrubs. Project implementation is not expected to result in removal of conifers or oaks, and would not be subject to the requirements the California Forest Practice Act or the Oak Woodland Conservation Act.

Nesting Migratory Birds

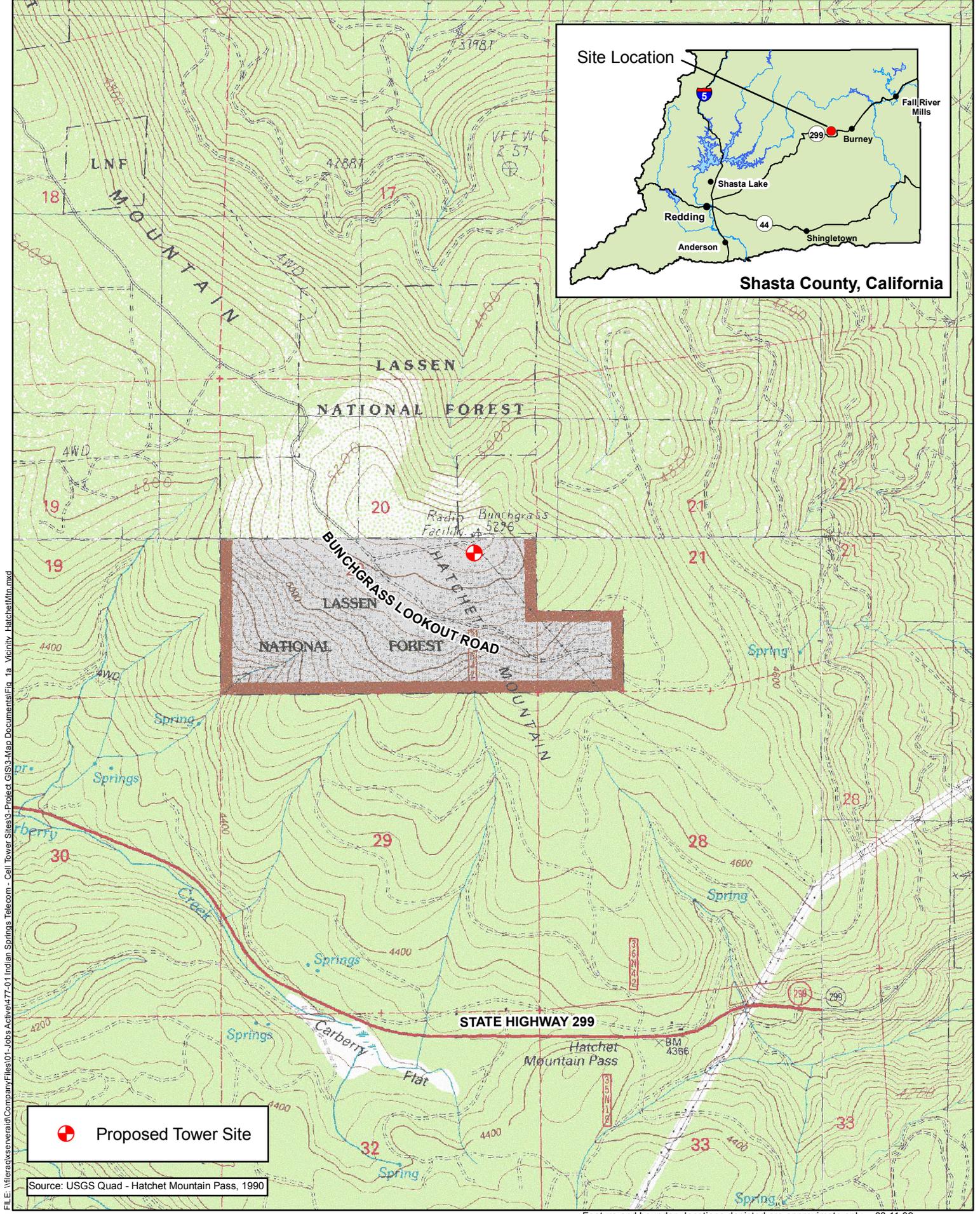
The project site has a low potential to support nesting by raptors and migratory birds. Potential nesting habitat for these birds occurs in trees and shrubs, which sparsely populate the project site. If present, active nests could be lost during vegetation removal or could be disturbed by on-site construction activities, potentially resulting in

¹ 2007. Natural Resources Conservation Service, Web Soil Survey. <http://www.websoilsurvey.nrcs.usda.gov/app/>

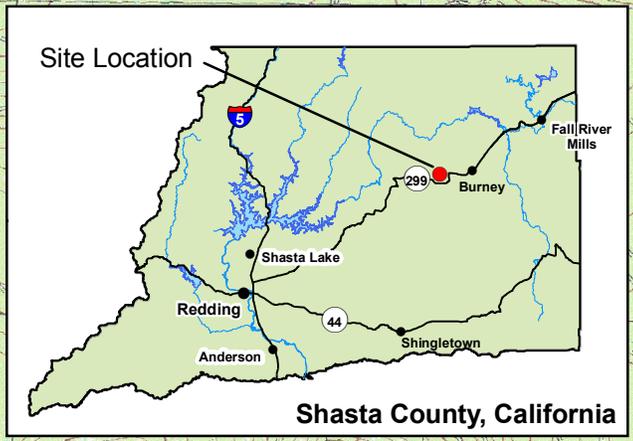
² 2007. Natural Resources Conservation Service, Hydric Soil List. <http://www.soils.usda.gov/use/hydric/>

nest abandonment and mortality of chicks and eggs. While no nests were observed during the field survey, they could be present in the future. To ensure that active nests of raptors and migratory birds are not disturbed, vegetation removal shall be avoided during the nesting season (generally March 1 to July 31), to the extent possible. If vegetation removal must occur during the nesting season, a focused survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the project site. The survey shall be conducted no more than 30 days prior to the beginning of construction or tree removal. If nesting birds are found during the focused survey, the nest tree(s) shall not be removed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no construction shall occur within 500 feet of an active nest, unless a smaller buffer zone is authorized by the Department of Fish and Game (the size of the construction buffer zone may vary depending on the species of nesting birds present).

Figures



FILE: \\flora\server\aid\CompanyFiles\01-Jobs Active\477-01-Indian Springs Telecom - Cell Tower Sites\9-Project GIS\3-Map Documents\Fig 1a Vicinity HatchetMtn.mxd



 Proposed Tower Site

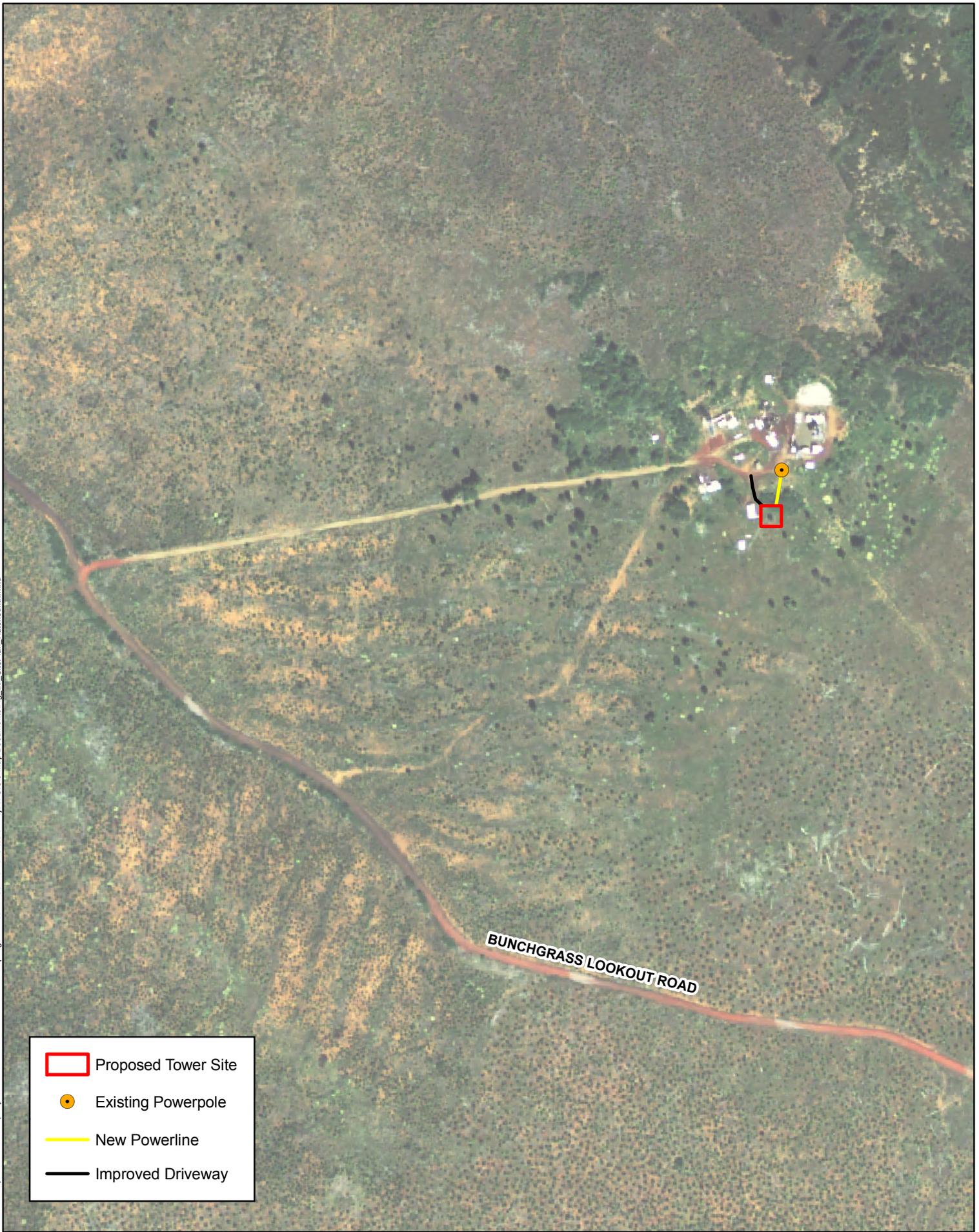
Source: USGS Quad - Hatchet Mountain Pass, 1990



Figure 1a
Vicinity Map - Hatchet Mountain

Feature and boundary locations depicted are approximate only. 08.11.09





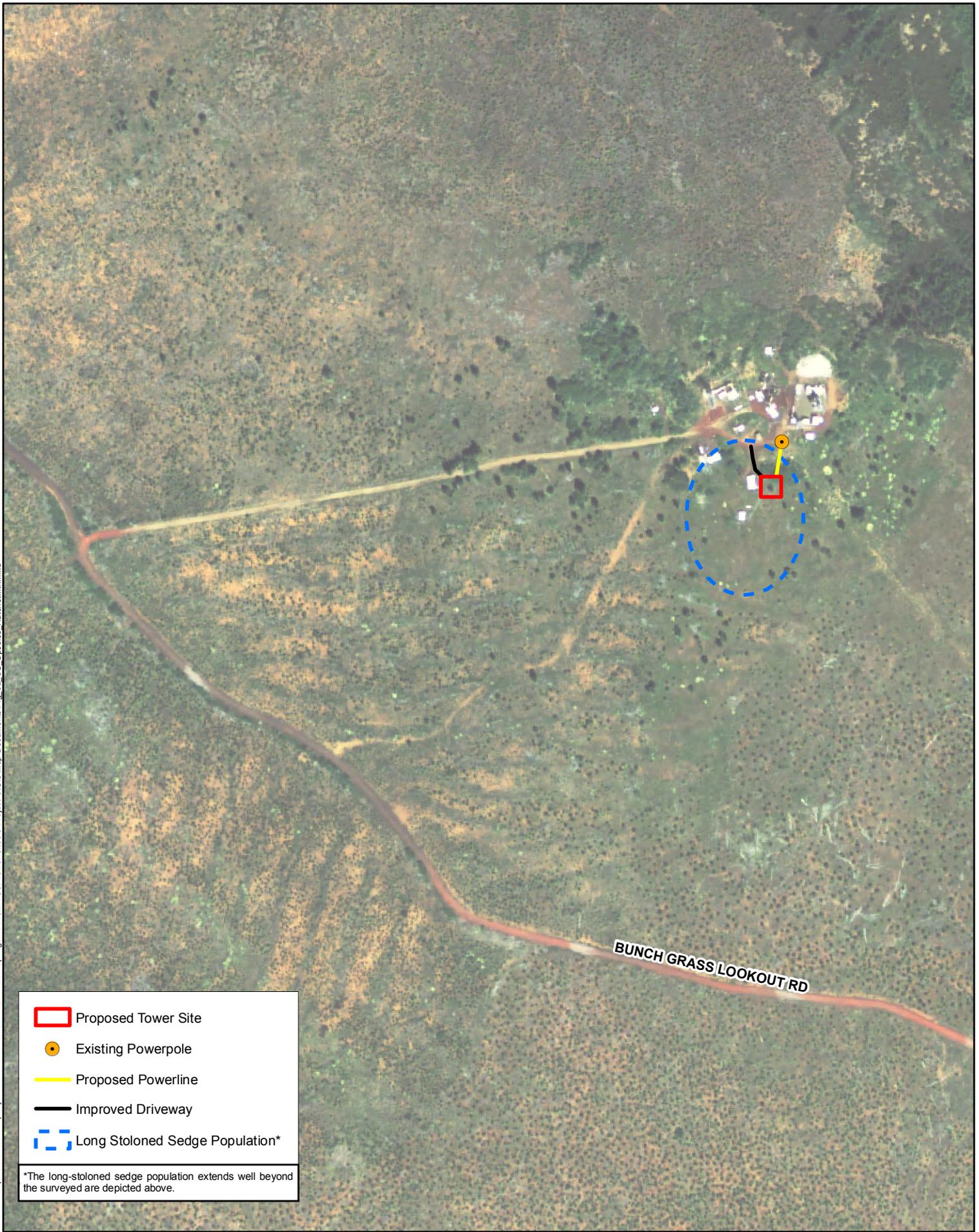
- Proposed Tower Site
- Existing Powerpole
- New Powerline
- Improved Driveway



Figure 2a
Site Plan - Hatchet Mountain

Feature and boundary locations depicted are approximate only. 08.11.09





-  Proposed Tower Site
-  Existing Powerpole
-  Proposed Powerline
-  Improved Driveway
-  Long Stoloned Sedge Population*

*The long-stoloned sedge population extends well beyond the surveyed area depicted above.

Feature and boundary locations depicted are approximate only. 08.03.09

  Feet
0 300

Figure 3a
Special Status Species - Hatchet Mountain



Checklist of Vascular Plant Species Observed

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Hatchet Ridge

June 26, 2009

Apiaceae

Lomatium sp.
Osmorhiza occidentalis
Sanicula graveolens

Asteraceae

Agoseris grandiflora
Agoseris heterophylla
Balsamorhiza deltoidea
Erigeron inornatus
Helianthella californica var. *nevadensis*
Hieraceum scouleri
Madia spp.
Madia minima
Senecio triangularis
Tragopogon sp.

Boraginaceae

Hackelia californica

Brassicaceae

Arabis glabra var. *glabra*
Lepidium campestre
Symbrium altissimum

Caprifoliaceae

Symphoricarpos sp. (*mollis*?)

Caryophyllaceae

Pseudostellaria jamesiana

Convolvulaceae

Calystegia occidentalis ssp. *occidentalis*

Cyperaceae

Carex inops ssp. *inops*

Ericaceae

Arctostaphylos patula

Fabaceae

Lathyrus sp. (*nevadensis*?)
Lotus denticulatus
Lotus purshianus
Vicia americana var. *americana*

Fagaceae

Quercus kelloggii

Grossulariaceae

Ribes roezlii var. *roezlii*

Hydrophyllaceae

Phacelia heterophylla ssp. *virgata*

Liliaceae

Tritelia ioxoides

Malvaceae

Sidalcea sp.

Carrot Family

Lomatium
Western sweetroot
Sierra sanicle

Sunflower Family

Large-flowered Agoseris
Annual agoseris
Deltoid balsamroot
California rayless fleabane
Nevada helianthella
Scouleri's woollyweed
Tarweed
Dwarf madia
Arrowleaf ragwort
Goat's beard

Borage Family

California stickseed

Mustard Family

Tower-mustard
English peppergrass
Tumble-mustard

Honeysuckle Family

Snowberry

Pink Family

Tuber starwort

Morning Glory Family

Chaparral false bindweed

Sedge Family

Long-stolen sedge

Heath Family

Green-leaved manzanita

Legume Family

Pea
Riverbar birds-foot trefoil
Spanish lotus
American vetch

Oak Family

California black oak

Gooseberry Family

Sierra gooseberry

Waterleaf Family

Vari-leaf phacelia

Lily Family

Prettyface

Mallow Family

Sidalcea

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED
Hatchet Ridge

Onagraceae

Clarkia rhomboidea

Pinaceae

Abies concolor

Pinus ponderosa

Poaceae

Achnatherum lemmonii

Achnatherum occidentale ssp. *californicum*

Bromus sp.

Bromus carinatus var. *carinatus*

Bromus hordeaceus

Bromus tectorum

Elymus elymoides

Elymus glaucus ssp. *glaucus*

Festuca sp. (*arundinacea*?)

Poa pratensis

Polemoniaceae

Navarretia divaricata ssp. *divaricata*

Phlox gracilis

Polygonaceae

Eriogonum nudum

Polygonum arenastrum

Rumex acetosella

Portulacaceae

Calyptridium umbellatum

Claytonia rubra ssp. *rubra*

Rhamnaceae

Ceanothus cordulatus

Ceanothus integerrimus

Rhamnus tomentella ssp. *tomentella*

Rosaceae

Potentilla glandulosa

Rubiaceae

Galium aparine

Scrophulariaceae

Collinsia parviflora

Mimulus torreyi

Penstemon neotericus

Solanaceae

Solanum parishii

Evening-Primrose Family

Diamond clarkia

Pine Family

White fir

Ponderosa pine

Grass Family

Lemmon's needlegrass

California needlegrass

Brome

California brome

Soft chess

Downy brome

Squirreltail

Blue wild rye

Fescue

Kentucky bluegrass

Phlox Family

Divaricate navarretia

Slender phlox

Buckwheat Family

Buckwheat

Common knotweed

Sheep sorrel

Purslane Family

Pussypaws

Red-stemmed miner's lettuce

Buckthorn Family

Whitethorn ceanothus

Deer brush

Hoary coffeeberry

Rose Family

Sticky cinquefoil

Madder Family

Cleavers

Snapdragon Family

Small-flowered collinsia

Torrey's monkey-flower

Plumas County beard-tongue

Nightshade Family

Parish's nightshade