

Table 1: Chewelah Peak Project Area – habitats for threatened (T) and endangered (E) species listed for the CNF. Species in shaded blocks will be addressed in this report.

Species	Documented in project vicinity?	Habitat present?	Comments
bull trout (<i>Salvelinus confluentus</i>)	No	No	Effects to bull trout covered under the fisheries report for this project.
Canada lynx (<i>Lynx canadensis</i>)	No	Yes	Project lies within the primary range of lynx, in the Chewelah Lynx Analysis Unit (LAU). In northeastern Washington, lynx use lodgepole pine, subalpine fir, spruce, and aspen cover types in subalpine fir plant associations. Cedar / hemlock cover types may also be important in this part of the state. <u>good quality foraging habitat</u> - extremely dense, young lodgepole pine, other conifers, or mixed conifer/hardwood stands (snowshoe hare habitat). <u>low quality foraging habitat</u> - mature forest with good overhead canopy and cone crops (habitat for red squirrels; an important alternate prey species). <u>denning</u> - late and old structural stage stands with jackpots of down logs <u>other considerations</u> - habitat connectivity, seclusion from human disturbance.
grizzly bear (<i>Ursus arctos</i>)	Yes	Yes	The proposed project lies outside (more than 10 miles southwest) of the Selkirk Mountains Grizzly Bear Recovery Area. Bears could occur in the area however. <u>spring foraging habitat</u> - lower elevation riparian areas, meadows, with succulent herbs, grasses, etc. <u>summer/fall foraging</u> - mid to high elevation, berry producing shrub fields <u>denning</u> - commonly on the north side of ridges with deep soils Seclusion from human disturbance is a primary management objective.
woodland caribou (<i>Rangifer tarandus caribou</i>)	No	No	Project lies outside recovery habitat and at elevations lower than what is presently considered to be caribou range. There are no known sighting records of caribou from the ski resort or surrounding area.

The USDA Forest Service (FS) maintains a list of sensitive species for each National Forest. Sensitive species are those whose population viability is a concern because of:

- Significant current or predicted downward trends in numbers of animals, or
- Significant current or predicted downward trends in habitat capability that could reduce a species' existing distribution.

Table 2 displays the sensitive terrestrial vertebrate species listed for the Colville National Forest. Table 3 displays the sensitive invertebrate species listed for the CNF. Effects to sensitive plants and fish will be addressed in separate reports.

Table 2: Chewelah Peak Project Area – habitats for sensitive terrestrial vertebrate species listed for the CNF. Species in shaded blocks will be addressed in this report.

Species	Documented in project vicinity?	Habitat Present?	Comments
bald eagle (<i>Haliaeetus leucocephalus</i>)	No	No	No rivers or large lakes with abundant fish in the vicinity of the project area. Streams in the local area are too small and densely forested to provide foraging habitat. No winter roost known from the area.
common loon (<i>Gavia immer</i>)	No	No	No large lakes or rivers in the vicinity of the project area.
fisher (<i>Martes pennanti</i>)	No	No	Timber stands in the project area are higher in elevation, have more open canopies, and are drier than stands normally used by this species.
gray wolf (<i>Canis lupus</i>)	No	Yes	Wolves are closely tied to habitats that support abundant big game populations. Limiting human-caused mortality is a primary management objective. A pack of wolves was documented on the Newport-Sullivan Lake Ranger Districts this year.
great gray owl (<i>Strix nebulosa</i>)	No	No	No meadows, bogs, pastures and other large openings in the project area that could be used for foraging.
harlequin duck (<i>Histrionicus histrionicus</i>)	No	No	Streams near the work sites are too small to provide suitable nesting habitat for this species.
northern leopard frog (<i>Rana pipiens</i>)	No	No	No wet meadows, potholes, ponds, or other suitable habitats in the project area.
eared grebe (<i>Podiceps nigricollis</i>)	No	No	No lakes or marshes in the project area.
sandhill crane (<i>Grus Canadensis</i>)	No	No	No large tracts of undisturbed marshes or meadows in project area.
peregrine falcon (<i>Falco peregrinus</i>)	No	No	No tall cliff faces or other rock features that peregrines could use for nesting exist in or near the project area.
pygmy shrew (<i>Sorex hoyi</i>)	No	Yes	Found in conifer stands with dense ground vegetation. May be associated with disturbed, seral habitats. In WA, pygmy shrews have been captured in upland, even-aged second-growth conifer forests.
red-tailed chipmunk (<i>Tamias ruficaudus</i>)	No	Yes	This species occupies dense coniferous forests at higher elevations.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	No	No	One abandoned mine in the vicinity of the project area, but the tunnel is caved in and not available to bats.
white-headed woodpecker (<i>Picoides albolarvatus</i>)	No	No	Project area contains no mature ponderosa pine forests.
wolverine (<i>Gulo gulo luteus</i>)	No	Yes	Wolverines typically den in higher elevation rock slides, caves, and crevices, often in glacial cirque basins. They forage in all forested habitats but particularly those where carrion can be found. They require seclusion from human disturbance.

Table 3: Chewelah Peak Project Area – habitats for sensitive invertebrate species listed for the CNF. Species in shaded blocks will be addressed in this report.

Species	Documente d in project vicinity?	Habitat Present?	Comments
meadow fritillary (<i>Boloria bellona</i>)	No	No	No meadows or openings in aspen or pine forests occur in the project area.
Great Basin fritillary (<i>Speyeria egleis</i>)	No	Yes	This species uses forest openings and edges, generally at higher elevations
Rosner's hairstreak (<i>Callophyrus nelsoni rosneri</i>)	No	No	This species uses openings and edges in coniferous forests around western red cedar. Forest stands in the vicinity of the project are high-elevation, drier type plant associations.
magnum mantleslug (<i>Magnipelta mycophaga</i>)	No	No	Found in a variety of low to mid-elevation sites, often with water in the general vicinity. Project area is too high in elevation for this species.
Fir pinwheel (<i>Radiodiscus abietum</i>)	No	No	Most often found in moist and rocky Douglas fir forest at mid-elevations in valleys and ravines and sometimes in western redcedar. Often found in or near talus of a variety of rock types, or under fallen logs. Forest stands in the vicinity of the project are high-elevation, drier type plant associations.
masked duskysnail (<i>Lyogyrus</i> spp.)	No	No	This species is a kettle lake associate. No suitable habitat in the project area.

V. Project Effects to TES Species

The following table displays the predicted effects of the recreation projects to TES species.

Table 4: Chewelah Peak Project - Summary of effects to TES species

Species	Determination	Rationale for Determination
Canada lynx (threatened)	May affect, not likely to adversely affect	No known lynx den site or sighting record from the Chewelah LAU. Timber stands in trail work area consist of mixed conifers and are generally too open to provide good den habitat. Foraging habitat conditions are marginal at best. There would be no significant increase in compacted, over-the-snow routes since the old trail segment would be abandoned. Toilets would be installed in areas of intensive human use. Project is consistent with standards and guidelines in the Canada Lynx Conservation Assessment and Strategy (Ruediger, et al, 2000).

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Table S-5 Effects on Wildlife Habitats

		Alternative A	Alternative B	Alternative C
Forest openings created for ski runs and lift lines		340 acres	650 acres	570 acres
Changes to Mature and Old-growth Wildlife Habitats				
Clearing trees in old growth and mature forests for ski runs Nordic trails		0 acres 0 acres	60 acres 14 acres	5 acres 1.5 acres
Thinning in old growth habitat for gladed skiing		0 acres	40 acres	100 acres
Summary of findings with regard to Threatened, Endangered and Sensitive Species				
T & E species	woodland caribou	<i>No effect</i>		
	bald eagle	<i>No effect</i>		
	gray wolf	For all these species, the alternative "May affect but not likely to adversely affect" the species or its habitats.		
	grizzly bear			
	Canada lynx	<i>Adversely affect</i>		
Sensitive species	Pacific fisher	For all these species, the project may impact individuals or habitat, but would not be likely to contribute to a trend toward federal listing or cause loss of viability to the population or species.		
	wolverine			
	Townsend's big-eared bat			
	northern leopard frog			
	great gray owl	The project would not adversely affect peregrine falcons and could improve foraging habitat when prey species adapt to the forest/open-land interface.		
	peregrine falcon			

Conservation Assessment and Strategy provides guidelines for activities in lynx habitat –

- At least 10% of the Lynx Analysis Unit should be denning habitat. Maintain denning habitat in patches generally larger than 5 acres. Right now about 19% of the Chewelah LAU is denning habitat.
- No more than 30% of the Lynx Analysis Unit should be unsuitable for lynx. Right now about 17% of the Chewelah LAU is unsuitable.

Construction of ski runs and Nordic trails would convert some foraging habitat into areas unsuitable for lynx. Alternative B would convert about 223 acres of foraging habitat to unsuitable lynx habitat. Alternative C would convert about 192 acres. Both Alternatives reduce the amount of foraging habitat from about 17,900 acres to about 17,500 acres (about 80% of the LAU). Both alternatives increase the amount of unsuitable habitat from about 3,700 acres to about 3,800 acres (about 18% of the LAU). Although unsuitable habitat is increased, the amount in the LAU does not exceed the 30%.

Lynx use cold areas with mature forest overstory for denning. Both alternatives would reduce denning habitat from 19% to 18%. Alternative B would affect a few more acres than Alternative C due to the longer length of the Nordic trails (10 miles vs. 7 miles), and the additional width of the trails (50 feet vs. 25 feet). With both Action Alternatives, denning habitat would remain above 10% of the LAU.

On a regional level, Alternatives B and C would have a small incremental effect on connectivity of habitat to the north and south of the ski area. Currently, the Cottonwood Divide Road, used in summer and fall by motorized vehicles and winter by snowmobiles, may inhibit lynx movement along the Cottonwood Divide. The proposed removal of forest vegetation near the ridge extending east from Chewelah Peak and contiguous with the Cottonwood Divide and the presence of skiers may discourage, but would not prevent lynx movement.

Lynx cross ski runs and roads as long as hiding cover is available interspersed among the openings. The proposed action would fragment

**Biological Opinion for the
49 Degrees North Mountain Resort Revised Master Development Plan
Stevens County, Washington
FWS Ref. 1-9-04-F-0109**

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The Service has not identified any actions that are interrelated or interdependent to the proposed project.

CUMULATIVE EFFECTS

Cumulative effects are the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this Opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act.

The action area is comprised of Federal, state and private lands. The only future action reasonably certain to occur in the action area is the prospect of the Chewelah Ski Basin Corp. commercially developing the private land in Section 7. This development would increase the likelihood of future development, however, this section is already in unsuitable lynx habitat, and therefore, the effects of this action would be insignificant to the lynx.

CONCLUSION



Although all aspects of the project are in compliance with the LCAS, the effects of the action are anticipated to cause adverse impacts to the lynx due to the permanent loss of good quality denning habitat, foraging habitat, and increased habitat fragmentation. However, after reviewing the current status of the Canada lynx, the environmental baseline for the action area, the effects of the action, and the cumulative effects, it is the Service's biological opinion that the 49 Degrees North Mountain Resort Revised Master Development Plan is not likely to jeopardize the continued existence of the Canada lynx. No critical habitat has been designated for this species, therefore none will be affected.

The Service reached this conclusion for the following reasons:

1) denning habitat would remain above 10 percent of the LAU; 2) the effects of the treatments and planned activities under the proposed action do not increase unsuitable habitat to the extent of exceeding more than 30 percent of the total LAU in unsuitable habitat; 3) due to the prevalence of low-quality foraging habitat in the analysis area and the LAU as a whole, use of potential security or denning habitat near the ski area by lynx is unlikely; 4) project activities may discourage, but would not prevent lynx movement; and 5) the project would have minor effects on habitat connectivity for lynx.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat