

49 degrees 3

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**

Prepared by:

U.S. Fish and Wildlife Service
Upper Columbia Fish and Wildlife Office
Spokane, Washington

May 5, 2004

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