

Based on the habitat to be affected and the habitat affinities of the R2 sensitive species (Table 3C-2), the Proposed Action considered herein would have “no impact” on any R2 sensitive species,¹⁰⁶ with the exception of white-tailed ptarmigan and boreal owl (Table 3C-6). These excepted species are addressed below. Evaluated species information and the environmental baseline for the species evaluated are contained above in the Affected Environment and the BE¹⁰⁷ within the Keystone project file that are incorporated herein by reference.

**Table 3C-6:
 Determination Summary of Effects on R2 Sensitive Animal Species
 Resulting from the Proposed Action**

Common name, <i>Scientific name</i>	Determination	
	Alt. 1	Alt. 2
INSECTS		
Great Basin silverspot, <i>Speyeria nokomis nokomis</i>	NI	NI
Hudsonian emerald, <i>Somatochlora hudsonica</i>	NI	NI
FISH		
Roundtail chub, <i>Gila robusta</i>	NI	NI
Mountain sucker, <i>Catostomus platyrhynchus</i>	NI	NI
Bluehead sucker, <i>Catostomus discobolus</i>	NI	NI
Flannelmouth sucker, <i>Catostomus latipinnis</i>	NI	NI
Colorado River cutthroat trout, <i>Oncorhynchus clarki pleuriticus</i>	NI	NI
AMPHIBIANS		
Boreal western toad, <i>Bufo boreas boreas</i>	NI	NI
Northern leopard frog, <i>Rana pipiens</i>	NI	NI
BIRDS		
Northern goshawk, <i>Accipiter gentilis</i>	NI	NI
Northern harrier, <i>Circus cyaneus</i>	NI	NI
Ferruginous hawk, <i>Buteo regalis</i>	NI	NI
American peregrine falcon, <i>Falco peregrinus anatum</i>	NI	NI
White-tailed ptarmigan, <i>Lagopus leucurus</i>	NI	MAII
Greater sage grouse, <i>Centrocercus urophasianus</i>	NI	NI
Columbian sharp-tailed grouse, <i>Tympanuchus phasianellus columbianus</i>	NI	NI
Flammulated owl, <i>Otus flammeolus</i>	NI	NI
Boreal owl, <i>Aegolius funereus</i>	NI	MAII
Black swift, <i>Cypseloides niger</i>	NI	NI
Three-toed woodpecker, <i>Picoides tridactylus</i>	NI	NI
Olive-sided flycatcher, <i>Contopus cooperi</i>	NI	NI



¹⁰⁶ USDA Forest Service, 2003a and 2005a

¹⁰⁷ Thompson, 2006b

Keystone 3

Western Ecosystems, Inc.

Ecological Consultants

905 West Coach Road, Boulder, Colorado 80302 (303) 442-6144

July 6, 2004

Mr. Terry Edelman
U.S. Forest Service, Dillon Ranger District
P.O. Box 620
680 Blue River Parkway
Silverthorne, CO 80498



email and U.S. Mail transmittal

Re: Biological Evaluation for seven 2004 summer construction projects at Keystone Ski Area resulting in a "not likely to adversely affect" determination for lynx.

Dear Terry:

This document represents the Biological Evaluation (BE) for seven 2004 summer construction projects at Keystone Ski Area that result in a "not likely to adversely affect" (NLAA) determination for lynx. This document is tiered to other BEs in the Keystone project file. I conducted field surveys of all project areas on September 16-17, 2003 and March 16 and April 28, 2004. Project descriptions are provided in the Biological Assessment (Thompson 2004) prepared for this project that is part of the project file. Project area maps have been delivered to you from SE Group and are also part of the project file. The projects considered in this document include:

1. Improvements to Packsaddle II Skier Circulation, Project No. 2004-T2
2. Flying Dutchman Race Course Widening, Project No. 2004-T5
3. Peak-to-Peak Mountain Biking Trail, Project No. 2004-T8
4. Prospector Re-grade and Trail Widening, Project No. 2004-T10
5. North Bowl Select Tree Removal, Project No. 2004-T13
6. Black Forest Thinning and Select Tree Removal, Project No. 2004-T14
7. Select Tree Removal on Porcupine Trail, Project No. 2004-T15

I have reviewed the current (Dec. 2003) list of Region 2 (R2) sensitive species. Based on the habitat to be affected and the habitat affinities of the R2 sensitive species, the above projects would have "**no impact**" on any R2 sensitive species, with the exception of the northern goshawk, boreal owl, olive-sided flycatcher, northern three-toed woodpecker, pygmy shrew, and American marten. Those species are addressed below.

Northern Goshawk

The proposed action may affect goshawks by removing an insignificant and discountable amount of forest cover that supports potential prey species. Densities of some prey species may decline in an area larger than the area of tree removal as a result of habitat fragmentation effects. No nests or nesting habitat associated with a potential nesting block would be affected. Therefore, regarding goshawks, the proposed action **may adversely impact individuals, but is not likely to result in**

a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.

Boreal Owl

Boreal owl surveys were conducted (April 28, 2004) on those forested project areas where potential nesting or foraging habitats could have been affected. No owls were detected calling within the vicinity of project areas suggesting that no projects are within active nest areas. However, the proposed action may affect boreal owls by removing an insignificant and discountable amount of forest cover that supports potential prey species. Densities of some prey species may decline in an area larger than the area of tree removal as a result of habitat fragmentation effects. Therefore, regarding boreal owls, the proposed action **may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.**

Olive-sided Flycatcher

The proposed action may affect olive-sided flycatchers by removing an insignificant and discountable amount of forest cover that supports potential foraging and nesting habitat. Densities of some flycatcher prey species may decline in an area larger than the area of tree removal as a result of habitat fragmentation effects. No known nests would be affected and it is unlikely that a nest or habitat within a nest territory would be affected given the structure limited area of proposed tree removal. Therefore, regarding olive-sided flycatchers, the proposed action **may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.**

Northern Three-toed Woodpecker

The proposed action may affect northern three-toed woodpeckers by removing an insignificant and discountable amount of forest cover that supports potential foraging and nesting habitat. No nest trees would be affected and the amount of potential foraging habitat would represent a small portion of any large, overlapping home range. Therefore, regarding northern three-toed woodpeckers, the proposed action **may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.**

Pygmy Shrew

The forest patches associated with the projects considered herein represent potential, but in all probability, unoccupied pygmy shrew habitat. Tree clearing would not result in a 100% year-round habitat loss because this species inhabits forest openings and low-density forest ecologically similar to ski trails. This shrew has not been documented on the Forest. In the unlikely event that it is present within disturbance areas during construction, those individuals may be killed. While there would also be some short-term construction impacts, most of the resulting ski runs might continue to be inhabited by this species, though perhaps at a lower density as a result of reduced CWD and prey density. Increased

Mr. Terry Edelman
July 6, 2004
Page 3

predation pressures on adjacent, fragmented, but otherwise undisturbed forest, may adversely affect surviving individuals in those areas. The likelihood that a relatively small area of forest removal and ground disturbance would affect this species when it has never been located on the WRNF is discountable. Nevertheless, because potential pygmy shrew habitat would be affected, the proposed action **may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.**

American Marten

The forest affected by the projects considered herein likely support rodents and other potential prey and may facilitate habitat connectivity across the base of the ski area. The proposed action would result in the loss of a small area of potential travel and foraging habitat. Densities of some prey species may decline in an area larger than the area of tree removal as a result of habitat fragmentation effects, ski trail management, and high levels of winter recreation. Conversely, potential prey base declines may be somewhat less than the area of tree removal because ski trails still provide some habitat for potential prey species, particularly outside the snow season. It is unlikely that any denning habitat would be affected because all project areas now receive low to intense levels of winter recreational activity. Regarding marten, the proposed action **may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.**

Standard best management practices related to reducing sedimentation, use of reclamation species, and weed control should be implemented, as appropriate.

Please call me if you have any questions.

Sincerely,

Rick Thompson 

Richard W. Thompson
Certified Wildlife Biologist
Western Ecosystems, Inc.

RWT/s

Cc: K. Sharp, SE Group
J. Foreman, USFS

LITERATURE CITED:

Thompson, R.W. 2004. Biological assessment/ biological evaluation for seven 2004 summer construction projects at Keystone Ski Area resulting in a "no effect" determination for lynx. Western Ecosystems, Inc. Boulder, CO. 6 pp.

Keystone 3

through the two forest blocks below, to developed ski terrain. This could involve up to three sets of 12 additional runs per day. Most of the forest below Little Bowl is part of "The Windows," an expert, hike-to skiing area, and the remainder of the forest blocks below Little and Erickson Bowls that might be skied by snowcat guests is also regularly skied by hike-to skiers. It is virtually certain that any snowcat guests that might ski down through the forest would do so in a small subset of what is now skied by hike-to skiers and be quickly funneled in the drainage bottoms that are packed out by hike-to skiers. Furthermore, snowcat guests would only have the opportunity to ski down through the forest several hours after the first hike-to skiers would have started skiing the bowls and forest. As such, hike-to skier use would have already temporarily disturbed habitat values in the forest patches below Little and Erickson Bowls. The relatively common wildlife using these patches should already be adapted to these relative levels of winter recreational activities such that any small, incremental increase should only result in another infrequent, temporary, and inconsequential disturbance.

Management Indicator Species

Because there would be no hydrologic, ground or vegetation-disturbing activities, or any activities associated with the Proposed Action during the snow free season, with the possible exception of alpine willows, no MIS (USFS 2002a,b) would be adversely affected by Alternative 2.

Alpine Willow

Alpine willows are poorly developed in Little and Erickson Bowls. Nevertheless, as part of the operating plan to be developed for the snowcat tours, mitigation measures have been incorporated to avoid impacts to those willows present. Snowcat routes (i.e., across the tops of the bowls and up and down the bowls) would be selected to avoid the few willows present. Snowcats will remain on established, packed routes because it is easier on the machines, more fuel efficient, and quicker to do so. While skiers may "prune" some shorter, unseen willows during portions of the ski season, skiers do not intentionally seek out willows to ski over. Some skier pruning is now occurring; however, most willows on the project area are relatively large, are not covered or bent over by snow during the ski season, and are not adversely affected by skiing. Little and Erickson Bowls would continue to provide habitat values for willow-associated species under Alternative 2.

R2 Sensitive Species

Because there would be no hydrologic, ground, or vegetation disturbing activities, or any activities associated with the Proposed Action during the snow free season, Alternative 2 would have **no impact** on any current (USFS 2002a) or draft (USFS 2003) R2 species, with the possible exception of white-tailed ptarmigan.

White-tailed Ptarmigan

White-tailed ptarmigan are not a current (USFS 2002a) R2 sensitive species but they are on the revised R2 sensitive species list (USFS 2003) that may be adopted around November 1, 2003. In the event that this species remains on the revised R2 list and if that list is adopted before the Proposed Action is implemented in December 2002 or January 2003, this species will have to be considered.

Keystone 3

Increased skier use of Little and Erickson Bowls would likely result in some additional, temporary displacement of birds to undisturbed portions of these bowls and to other surrounding alpine wintering areas. Although it is possible that some longer-term winter displacement could occur, the total amount of skiing under Alternative 2 would remain well below the amount of skiing present at portions of Vail and Copper Mountain Ski Areas where ptarmigan continue to winter. Temporary and longer-term displacement may theoretically reduce winter carrying capacity; however, habitat is relatively widespread in local mountains and is not likely limiting the local ptarmigan population. Because of minor displacement effects on wintering white-tailed ptarmigan, Alternative 2 **may adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide.**

Threatened, Endangered, and Proposed Species

Canada Lynx

Alternative 2 would result in annual, increased winter recreational use within a portion of Keystone that now receives similar types of use. Because the alpine portions of Little and Erickson Bowls are not lynx habitat and adjacent areas of lynx habitat are already affected by similar winter recreation and maintenance, this proposal would have insignificant and discountable effects on lynx habitat use. Existing hike-to skiers have already degraded the security habitat values in the forest patches below Little and Erickson Bowls; any additional snowcat skiers that might ski through the same forest patch would not further degrade potential diurnal security values. Increased human activity and proposed grooming in Little Bowl and Erickson Bowl would result in a minor increase in snow compaction in these areas. The amount and locations of grooming would be determined in the winter operating plan. Because the affected areas are above treeline and the increase in compaction would be minor; therefore, the proposal would have insignificant and discountable effects on interspecies competition between lynx and other predators in the area.

Although this proposal would result in increased skier use of Little and Erickson Bowls, it presents an opportunity to reduce skier use of Jones Gulch to below existing levels. Guests will be dropped off in the bowls well below the ridgeline and they would not be permitted to hike up and ski into Jones Gulch by the snowcat operator and/or guide. So, snowcat guests would not be inclined, or have an opportunity, to ski into Jones Gulch. Snowcat trips would also increase the opportunity to detect and enforce existing levels of backcountry skiing in Jones Gulch. While the existing environmental baseline (USFWS and NMFS 1998) has degraded potential lynx habitats and impaired lynx movements in the action area, Alternative 2 would result in no habitat modifications and contribute no additional direct, indirect, or cumulative effects to lynx habitat that would further degrade the existing environmental baseline.

Alternative 2 would not result in any ski area facilities, habitat modifications, developed ski terrain, or new recreational uses that would affect potential lynx habitat use in and around Keystone. Alternative 2 would result in no modifications to lynx habitat in LAU 26. Lynx