

**Table IV-22. Sensitive Species Biological Evaluation - Summary of Conclusion of Effects**

Species	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
<i>Lupinus lepidus</i> var. <i>Ashlandensis</i>	MIH	MIH	MIH	MIH	MIH
<i>Horkelia hendersonii</i>	MIH	MIH	MIH	MIH	MIH
<i>Hazardia whitneyi</i> var. <i>discoidea</i>	NI	NI	MIH	NI	NI
<i>Carex nervina</i>	MIH	NI	NI	NI	MIH

NI = No Impact  
MIH = May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population of Species

**b. Direct and Indirect Effects**

# Mt. Ashland 3

**Effects Common to All Alternatives**

None of the alternatives would have any effect on Threatened or Endangered plants listed under the Federal Endangered Species Act because none are present in the existing ski area or SUP area.

Whitney's haplopappus (*Hazardia whitneyi* var. *discoidea*): The ¼ acre population with 75 clumps, adjacent to the existing Blossom ski run, appears to be close, but just outside, specific areas affected by existing operations and all specific areas proposed for widening Blossom ski run under various action alternatives.

Henderson's horkelia (*Horkelia hendersonii*): There are four small patches on about 0.15 acres on the south aspect of the terminal moraine at the bottom of the Bowl. Altogether, these plants occupy about 80 square feet, a very small area compared to the 50+ acres occupied on the summit, west ridge, and adjacent areas. A mitigation measure is proposed to protect these plants during construction of the Moraine Lodge under Alternatives 2 and 3, or the proposed structures under Alternatives 3 and 6 (see Mitigation Measures, Section G, 8 of Chapter II). Skiing activity over these small patches is expected to be the same under all alternatives. No individuals on the moraine are expected to be lost under any alternative.

**Effects Common to Alternatives 1, 2, 3, 5, and 6**

Whitney's haplopappus (*Hazardia whitneyi* var. *discoidea*): Currently, under Alternative 1 (No-Action), there are no ski area activities in the vicinity of the single clump of Whitney's haplopappus found east of the Knoll in the area of proposed Run R-1. Under Alternatives 2, 3, 5, and 6, Run R-1 and other Knoll development would not occur, except for parking lot expansion in Alternative 6. Therefore, no actions proposed under these alternatives would affect this small occurrence.

**Effects Common to Alternatives 1, 3, 4 and 5**

Mt. Ashland Lupine (*Lupinus lepidus* var. *Ashlandensis*): Currently, the Mt. Ashland lupine population suffers some adverse effects from summer recreation activities. Individual plants are lost to trampling and soil disturbance by vehicles, walkers, and bicyclists. Unregulated gatherings and camping occur at the summit and at the Rabbit Ears area. In recent years, there has likely been a localized net loss of plants and some decline in habitat quality due to these activities. Also, there are minor gullies starting to form at a few locations (roadside and otherwise) that could adversely affect the ability of the lupine habitat to hold soil moisture in the future, if ignored.

Table IV-24. Summary of Effects to Threatened and Sensitive Animal Species

Species	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
<b>Threatened Species</b>					
Northern bald eagle	NE	NE	NE	NE	NE
Northern spotted owl	LAA	LAA	LAA	LAA	LAA
Canada lynx	NE	NE	NE	NE	NE
<b>Sensitive Species</b>					
Black salamander	NI	NI	NI	NI	NI
Siskiyou mountain salamander	NI	NI	NI	NI	NI
Foothill yellow-legged frog	NI	NI	NI	NI	NI
Cascades frog	BI	BI	BI	BI	BI
Oregon spotted frog	NI	NI	NI	NI	NI
Northwestern pond turtle	NI	NI	NI	NI	NI
Common kingsnake	NI	NI	NI	NI	NI
American peregrine falcon	NI	NI	NI	NI	NI
Northern goshawk	MIH	MIH	MIH	MIH	MIH
Great gray owl	MIH	MIH	MIH	MIH	MIH
Willow flycatcher	NI	NI	NI	NI	NI
Gray flycatcher	NI	NI	NI	NI	NI
Upland sandpiper	NI	NI	NI	NI	NI
Tri-colored blackbird	NI	NI	NI	NI	NI
Pacific shrew	MIH	MIH	MIH	MIH	MIH
Pacific pallid bat	NI	NI	NI	NI	NI
Pacific fringe-tailed bat	NI	NI	NI	NI	NI
Townsend's big-eared bat	NI	NI	NI	NI	NI
California wolverine	MIH	MIH	MIH	MIH	MIH
Pacific fisher	MIH	MIH	MIH	MIH	MIH
American marten	NI	NI	NI	NI	NI
Oregon shoulderband	NI	NI	NI	NI	NI
Chace sideband	NI	NI	NI	NI	NI
NE = No Effect LAA = May Effects - Likely to Adversely Affect NI = No Impact BI = Beneficial Impact MIH = May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species					

**b. Direct, Indirect, and Cumulative Effects on Northern Spotted Owl**

Much of the suitable habitat within the SUP area is well above 6,000 feet in elevation. The lowest elevation in the existing developed ski area is 6,300 feet. The lowest elevation where tree removal would occur in Alternative 2 is 5,900 feet. The lowest elevation on Alternative 4 (Knoll) is 5,800 feet. The USFWS, in cooperation with spotted owl research biologists, has determined that spotted owls have a limited potential to nest at these elevations (Frank Wagner, pers. com.). While the potential habitat on Mt. Ashland does have the structural attributes of fully suitable NRF (Nesting, Roosting, Foraging) habitat for spotted owls, the habitat at best provides only forage and roosting habitat. Therefore, in the discussion below, "suitable" or "RF" equates to "roosting/foraging" habitat.

**Effects Specific to Alternative 1 (No-Action)**

Alternative 1 would not remove any spotted owl roosting, foraging (RF), or dispersal habitat. No spotted owl pairs would be affected by reductions in habitat and dispersal opportunities would not be reduced between the Late-Successional Reserve (LSR) and Critical Habitat Unit (CHU).

**Table IV-26. Listed and Sensitive Fish Species and Habitat Biological Evaluation  
Summary of Conclusion of Effects**

Species - Watershed	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
<b>Ashland Creek</b>					
THREATENED SONC coho salmon SONC Critical Habitat SONC & SONCC Essential Fish Habitat	NE	NE	NE	NE	NE
SENSITIVE KMP steelhead SONCC chinook salmon SOCC coastal cutthroat trout	MIH	MIH	MIH	MIH	MIH
<b>Neil Creek</b>					
THREATENED SONC coho salmon SONC Critical Habitat SONC & SONCC Essential Fish Habitat	NLAA	NLAA	NLAA	NLAA	NLAA
	NAA	NAA	NAA	NAA	NAA
SENSITIVE KMP steelhead SONCC chinook salmon SOCC coastal cutthroat trout	MIH	MIH	MIH	MIH	MIH
<b>Grouse Creek</b>					
THREATENED SONC coho salmon SONC Critical Habitat SONC & SONCC Essential Fish Habitat	NE	NE	NE	NE	NE
SENSITIVE Summer and winter KMP steelhead Spring SONCC chinook salmon	NI	NI	NI	NI	NI
<b>Cottonwood Creek</b>					
THREATENED SONC coho salmon SONC Critical Habitat SONC & SONCC Essential Fish Habitat	NLAA	NLAA	NLAA	NLAA	NLAA
	NAA	NAA	NAA	NAA	NAA
SENSITIVE Summer and winter KMP steelhead Spring SONCC chinook salmon	MIH	MIH	MIH	MIH	MIH
NE - No Effect NI - No Impact NLAA - May Effect - Not Likely to Adversely Affect NAA - Not Adversely Affect MIH - May Impact Individuals or Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Cause a Loss of Viability to the Population or Species					

**a. Direct, Indirect, and Cumulative Effects - Ashland Creek**

**Threatened and Sensitive Fish Species**

Spawning and rearing habitat of resident cutthroat and rainbow trout could be affected indirectly by sediment input from the expansion area reaching fish habitat 2.0 miles downstream of the proposed project. There is a slight possibility that habitat quality and complexity could be reduced. It is anticipated that there would be a negligible amount of sediment that may affect cutthroat and rainbow trout habitat from short or long-term sediment delivery. Petroleum products could make their way into the nearby headwater tributary of Ashland Creek, however this would be negligible and difficult to detect or measure at the area downstream 2.0 miles where cutthroat and rainbow trout reside.

## **Effects to Mt. Ashland Lupine and Henderson's Horkelia**

*The implementation of ski expansion activities, particularly in the area of the West Ridge (on the summit between the National Weather Bureau radar site and the area locally known as the "Rabbit Ears" rock outcrop) may affect two rare vascular plant species listed by the Forest Service as Sensitive: Mt. Ashland Lupine (*Lupinus lepidus* var. *Ashlandensis*), and Henderson's horkelia (*Horkelia henderosonii*). Ski expansion activities may have an effect on long-term population viability of Mt. Ashland Lupine and Henderson's horkelia.*

The Mt. Ashland Lupine is endemic to Mt. Ashland (found nowhere else). There is only one large population located on the summit and west slope of the mountain. The existing population covers roughly 43 acres and has about 36,000 individuals. The population occupies natural openings. The Mt. Ashland lupine grows on southern, western, or flat aspects. It is not found in any of the north-facing openings. It becomes scarce or absent on those portions of the summit and west slope where the aspect turns toward the northwest or north.

Henderson's horkelia is endemic to the eastern Siskiyou from Mt. Ashland to Dry Lake Lookout south of Condrey Mountain (17 miles southwest of Mt. Ashland). Six populations are known. The Mt. Ashland population probably has the greatest number of plants. An extended population in the Dutchman Peak/Observation Peak area spreads across more acres but probably contains fewer plants. The Mt. Ashland population occupies roughly the same area on the summit and west slope as the Mt. Ashland lupine population, with notable extensions on the west and southwest sides. A few plants occur on the terminal moraine at the bottom of the Bowl. Individual horkelia cannot be reliably counted because the plant spreads vegetatively as well as by seed, but Henderson's horkelia is abundant within many parts of the area occupied by the Mt. Ashland population.

There are four small patches on about 0.15 acres on the south aspect of the terminal moraine at the bottom of the Bowl. Altogether, these plants occupy about 80 square feet, a very small area compared to the 50+ acres occupied on the summit, west ridge, and adjacent areas. A Mitigation Measure is required to protect these plants during construction of the Moraine Lodge. No individual plants on the moraine are expected to be lost under my decision.

Mt. Ashland Lupine (*Lupinus lepidus* var. *Ashlandensis*): Under my decision, skiers would continue to cross an estimated 5 acres of the lupine population when weather and snow conditions attract them to the south side of the mountain. Skiers would continue to use 3 acres of lupine habitat around the top and west side of the Bowl and 0.5 acres down the West Ridge. FEIS Map IV-6 shows the relationship of the lupine population area to existing and proposed ski runs under Alternative 6, which is the same as my decision.

Since the proposed Run 15 begins on the West Ridge, the numbers of skiers using these 3.5 acres of lupine habitat would substantially increase over current usage. My decision also includes construction of a snow fence on the West Ridge to augment snow depths. The increased skier usage and the snow fence may change environmental conditions on these 3.5 acres by increasing pressure of the snow pack on the dormant root crowns of lupines and other plants, and increasing the longevity of the snow pack in the spring. A roped ski area boundary would border the West Ridge Run and, if properly enforced, would keep most skiers off of an additional 25 acres of Mt. Ashland lupine habitat. Minor disturbance and loss of occasional individuals could occur from skiers using bare ground patches in the lupine population to rest or socialize during low snow periods.

It is not known if these potential environmental changes would be beneficial, adverse, or neutral for the Mt. Ashland lupine. However, the effect of a longer-lived snow pack is most likely to be adverse because the lupine typically grows in wind-scoured areas where the snowpack typically disappears early in the spring. These 3.5 acres are already skied over with no evidence of adverse effects. Also, roughly 2 of these acres have much lower population density than the rest of the 43-acre population. Therefore, even if numbers of individual plants were to decline on these 3.5 acres, it is not expected that my decision would adversely affect the viability of the population as a whole.

Effects to the Mt. Ashland lupine population from increased summer recreation activity will be mitigated through implementation of measures that include installation of barriers, signs, and through education (see Mitigation Measures). Recent lupine and horkelia habitat improvement projects are being implemented under the Terms of the Conservation Agreement, as described in FEIS Chapter III, Section C, 4).