EPA Weighs in Against Full Expansion at Mt. Ashland Ski Area

On November 4, 2003 the US Environmental Protection Agency (EPA) submitted its formal comments on the Mt. Ashland Ski Area Expansion Draft Environmental Impact Statement (DEIS). The DEIS is the guiding document outlining how, when, and, if a ski area expansion will take place.

The EPA does not support Ski Ashland's proposed expansion (Alternative 2 in the DEIS) or the US Forest Service's slightly modified "preferred alternative" (Alternative 6). The EPA is concerned that ski area expansion will result in increased erosion in the Ashland watershed, negatively impact both Ashland and Cottonwood Creeks, reduce water supply in critical summer months, and risk violating provisions of the Northwest Forest Plan.

The EPA continues in their letter to recommend a smaller-scale expansion that does not cross the prostine Middle Branch watershed. In effect, they have endorsed the **Community Alternative** put forth by local skiers and snowboarders as an environmentally sustainable expansion.

Read the full text of the EPA's comments below!

Full text of the US EPA's official comments on Mt. Ashland Ski Area Expansion DEIS

Cover Letter

November 4, 2003
Reply To Attn Of: ECO-088 99-078-AFS

John Schuyler, Acting District Ranger
Ashland Ranger District
United States Forest Service
Rogue River National Forest
645 Washington Street
Ashland OR 97520

Dear Mr. Schuyler:

We have reviewed the draft Environmental Impact Statement (EIS) for the Mt. Ashland Ski Area Expansion, (CEQ Number: 030337) in Ashland and Scott River Ranger Districts, Rogue River National Forests in Southwestern Oregon. We have conducted this review in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The draft EIS examines five action alternatives and the no-action alternative. Alternative 1, the no-action alternative, would continue operation of the existing ski area facility and continue with existing management activities. Alternative 2, the proposed action, would

include development of new ski areas including ski lifts and runs on the east and west sides of the Middle Fork of the East Fork of Ashland Creek (the Middle Fork), west of the current ski area, widening of existing runs, development of a tubing facility, several guest service buildings, lighting, a number of infrastructure improvements, and expansion of the existing parking lot. Alternative 3 is similar to Alternative 2 but avoids locating ski runs and lifts on the west side of the Middle Fork. Alternative 4 places the expansion area about a half-mile to the east of the existing ski areas at a location referred to in the EIS as "The Knoll." Alternative 5 adds additional ski terrain and lifts mostly within the present ski area "footprint." Alternative 6 is very similar to the proposed action, but it reduces ski facility development in the Middle Fork. Alternative 6 is identified as the US Forest Service's preferred alternative in the EIS.

We commend the Forest Service for responding to public comment by making substantial changes in the proposed action since the original draft EIS was published in February 2000. We have rated the preferred alternative in the EIS, EC - 2 (Environmental Concerns - Insufficient Information). Our major concerns are that the Ski Area expansion may increase erosion in the highly erosive soils of the expansion area, causing water quality effects downstream in Cottonwood and Ashland Creek, the latter of which is the City of Ashland's water supply; the addition of impervious surface for parking could degrade water quality in Cottonwood and Ashland Creek; and ski area construction may adversely affect the flow regime and wetlands in upper Ashland Creek during low flow situations in the drought season. In addition, we are concerned that watershed scale effects to riparian reserves cannot be ruled out, which would put some Northwest Forest Plan (NWFP) Aquatic Conservation Strategy objectives at risk of not being met.

Accordingly, we believe that the most environmentally preferable development alternative would be Alternative 3, or some similar project design that limits constructing ski lifts and runs to the east side of the East Fork of the East Branch of Ashland Creek, and reduces the effects to all of these resources over the entire project site. We concur with the Forest Service that Alternative 6 is environmentally preferable to Alternative 2.

This rating and a summary of our comments will be published in the Federal Register. A copy of the rating system used in conducting our review is enclosed for your reference. Thank you for the opportunity to review this draft EIS. If you would like to discuss this letter, please contact
Jonathan Freedman at (206) 553-0266.

Sincerely,

Judith Leckrone Lee, Manager
Geographic Unit

Main Letter Text

98-078-AFS
DEIS MOUNT ASHLAND SKI AREA EXPANSION DEIS COMMENT LETTER
11/4/03

EPA's Detailed Comments on the Mt. Ashland Ski Area Expansion

Purpose and Need

The purpose and need discussion has been greatly expanded from the previous draft to specifically analyze each separate goal the project is attempting to achieve and describe how the EIS developed each alternative to respond to the mix of needs presented. The EIS also more fully discusses the question of skier demand in local, regional and national contexts. We generally concur with Purposes 1-5, and strongly support Purpose 6: Maintain and Improve Trend of Watershed Recovery.

Alternatives

The EIS has taken a thorough look at alternatives, including the addition of Alternative 4, which examined expansion in the Knoll area, and the addition of Alternatives 3, 5, and 6, which respond to environmental considerations that were added to project goals since preparation of the original EIS. We commend the Forest Service for being responsive to public input and making major improvements in the analysis of alternatives in order to minimize environmental impacts.

We have a strong preference for Alternative 3. Based on information presented in the EIS, we conclude that in the critical area of effects to aquatic resources, including water quality, instream flows, erosion and sedimentation, Alternative 3 would entail less risk of environmental damage in Ashland Creek basin than with either Alternative 2 or Alternative 6. This is because ski lifts and ski runs would be confined to the east side of the critical upper portion of the East Fork drainage. In addition, Alternative 3 limits both direct and indirect impacts to the McDonald's Peak Roadless Area and avoids direct impacts to the regionally rare Engelmann spruce grove. According to the information in the EIS, Alternative 3 accomplishes most of the terrain balance and diversity purposes as well or almost as well as Alternatives 2 and 6 and does so at less economic risk than the latter two. According to information in Chapter 2, the substantive difference between Alternatives 2, 3 and 6 is that the first two create about 25% more novice terrain and 20% more intermediate terrain than Alternative 3. In Appendix I of the EIS, the financial feasibility analysis states that "the performance
of 2, 3, and 6 is reasonably similar." It also states that Alternative 3, unlike the other alternatives, yields a favorable economic result under low, medium, and high visitor scenario trends. This figure is attributed to lower capitalization costs, and because less capital is put at risk. We recommend that the Forest Service select Alternative 3, or a version of it that confines development to the east side of the East Fork drainage.

Water Quality and Impervious Surfaces

EPA has concerns about potential project effects on water quality in Ashland and Cottonwood Creeks. Ashland Creek discharges into Reeder Reservoir, the source of water supply for the City of Ashland. Reeder Reservoir is a Clean Water Act Section 303(d) listed water quality limited water body for sedimentation. Upper Ashland Creek is considered impaired and may be listed as impaired on the 303(d) list for high temperatures. There is little data on Cottonwood Creek, although it is a tributary to the Klamath River, which is classified as an impaired stream.

We are concerned about the addition of impervious surface for the expansion of parking at the Mt. Ashland Ski Area. Construction could increase sediment delivery to the headwaters

of Cottonwood Creek, while use of the parking lot and operation of could increase the discharge of contaminants and sediment from parking lot runoff and road sanding. Maintenance of ski runs with motorized equipment in closer proximity to surface waters than before could cause an increase in the discharge of contaminants, particularly in Ashland Creek. The EIS should include specific estimates of increases in contaminant loading, and about the proposed treatment and control of pollutants from the new impervious surfaces and ski runs. This may include the location, size and type of oil / water separators, stormwater ponds, water quality swales or settling ponds and proposed operation and maintenance of these facilities. We are also concerned about the predicted lack of effects of vegetation and land clearing on stream temperatures in the project area. The EIS should provide some justification to support the conclusion that no changes to stream water temperatures would occur.

Instream Flows

EPA has concerns about potential project effects on surface water flow in Ashland Creek, which as noted above, discharges into Reeder Reservoir, the source of water supply for the City of Ashland. Ski area expansion may cause a change in the flow regime in creeks draining the project area, particularly Ashland Creek. All action alternatives include the addition of impervious surface, and disturbance associated with vegetation and land clearing associated with the Ski Area expansion such as construction of ski runs and lifts on steep slopes with unstable soils. These activities can change the periodicity of surface runoff, increase creek flows during "rain on snow" storm events, and increase the potential for erosion.

Expanding the Ski Area on Ashland Creek may also reduce groundwater storage near the surface, resulting in the decrease of low flow surface water during the drought season, which may cause impacts to special aquatic sites, increases in water temperature, water quality impacts and a reduction in water availability downstream. Members of the Ashland community have reported observations of substantial surface flow in the Middle Fork and well hydrated vegetation in the immediate vicinity of the creek in August 2003 in contrast to much lower flows and vegetation conditions outside the riparian area (Headwaters Group October 2003). This suggests that the substrate of the Middle Fork drainage within the project area may be acting as a significant groundwater recharge or discharge area throughout the summer. If so, there could be a risk that construction of ski lifts and ski runs could disrupt this function, potentially lowering drought season flows in the Middle Fork and removing
hydrology from vegetation communities in the Special Use Permit area.

The EIS needs to present more information on current surface flows in the Middle Fork. The figures which appear on III-63 do not present a complete picture of existing flow conditions in the Middle Fork. There is also little specific information in the EIS regarding soils or substrate in this part of the project area that could explain either increased groundwater storage capacity and discharge or these surface flows. Given the potential impacts to surface flow, the EIS should clarify where the data has been collected, and what the period of record is so it is possible to determine how much water might be discharged from the project area from the Middle Fork. Based on the information presented and the customized stream flow model, discussed again in Chapter IV on Page IV-71, the EIS predicts very minor increases in flow in both Ashland Creek, but does not discuss in sufficient detail how the conclusions were derived. The EIS should describe the use and application of the stream flow model, and support the results with additional explanation. Without such explanation, it is difficult for EPA to determine what the indirect effects to the flow regime might be, and what referred effects might occur to vegetation communities such as project area wetlands

in the Middle Fork. The EIS and the Record of Decision (ROD) should commit to monitoring surface flows in Ashland Creek during and after construction for any effects to surface flows, and if any effects are found, should also commit to performing mitigation measures to either minimize or compensate for the effects.

Soil Erosion

The potential for soil erosion is a major concern for this proposed project. The EIS acknowledges that many soils at the Ski Area have granitic origins which have a higher potential for surface erosion and failure because of steep slopes, often unconsolidated material and coarse grain size. Disturbed areas such as road cuts in the vicinity of the project site show large quantities of unconsolidated granite being moved downslope. Construction would consist of removing vegetation and topsoil and disturbing soil cover, all of which could greatly increase erosion. The EIS, on Pages II-13, and Map III-3, shows that some construction areas in riparian zones in the Ashland Creek watershed have substrate classified as having high potential risk for both sediment delivery and landslides.

On Page III-19, the EIS states that the Forest Service used the Water Erosion Prediction Project (WEPP) model for predicting runoff, choosing "Disturbed WEPP" to characterize the possible effects of constructing the proposed ski area expansion. Disturbed WEPP is described by those who developed it as suitable for sites with little soil disturbance but a definable amount of soil residue cover. Disturbed WEPP is not intended for sites "where soil is severely disturbed or compacted, such as roads and trails (or) construction sites" such as the Ski Area (Draft Disturbed WEPP / WEPP Interface for Disturbed Forest and Range, Runoff, Erosion and Sediment Delivery, USDA Forest Service, 2/00). The types of disturbance model users can select are typified by a 5-year-old forest, a heavily logged site, a forest one to two years after a prescribed fire, or a forest two to three years after a wildfire, which do not appear to match up well to site conditions at the Ski Area during construction.

In addition, the EIS states that measured rates of soil erosion to granitic soils have been extrapolated from Idaho, and these rates have been compared to the results of sediment monitoring at Mount Ashland from the 1970s and 1980s. While we acknowledge that these estimates use the best existing information, we would have more confidence in them if 1) we could be certain that the WEPP model was appropriate for the site conditions and 2) if the results had been compared to measured recent erosion rates from the project site. Additionally, it may not be correct to compare roads to rills on the construction site (III-26). The results of the Montgomery report (1977) described in the EIS are an indication of how important assumptions about erosion rates for different land use types can influence the results of any model. The EIS should therefore use more recent soil erosion data from the project site to derive predicted erosion rates.

The EIS states that erosion will more than double in the Ashland Creek basin under all alternatives aside from alternatives 1 and 5. The EIS should better explain why alternative 3 is predicted to have equal erosion to Alternative 2 and greater erosion than alternative 6 when these latter alternatives would require more grading and construction over a larger area. The restoration projects only account for a decrease of 5 cubic yards of sediment erosion in Ashland Creek and .2 cubic yards in Cottonwood Creek. The EIS should also better explain how estimated annual sediment delivery to streams was derived, and include more complete descriptions of ongoing monitoring efforts designed to predict the amount of erosion that might be expected from construction. In addition, the EIS should include a more complete description of the size, location, and plans for operation

and maintenance of sediment ponds.

The historical data the EIS displays about the effects of the original ski area construction (Page III-33) shows a large "pulse" of erosion in the years following the original development. The estimates were based on aerial photo interpretation, not actual systemwide data collection. The analysis attributes most of this to the construction of new roads, which should not occur on as large a scale for the expansion. Chapter IV of the EIS should discuss whether some risk remains for such an erosion pulse to occur, given project site substrate and soils, the relative size of the new work, and the lack of ground-truthed data from the critical initial post-construction years. Some conclusions may be drawn from the historical experience with erosion control measures at the Ski Area as presented in Chapter III and Appendix E.

Parking

The Forest Service has stated in informal communications with this office that there are parking shortages on approximately 12-14 days per year, usually when there has been recent snow and the weather is clear. The EIS states that the existing lot is narrow and difficult to maneuver in when full. Vehicles are often parked on the County Road leading to the Mt. Ashland Ski Area during busy weekends and holidays, causing safety concerns.

In conversations with Forest Service staff in July 2002, we expressed concerns about the addition of impervious surface for expanded parking and requested that the Forest Service consider alternatives such as expanded shuttle service that focus on getting more users to the ski area, not necessarily more cars. The Forest Service should consider directing the Mount Ashland Association (MAA) to develop a bus shuttle service that would operate from the junction of the Ski Area access road with Interstate 5 to minimize creation of new impervious surfaces for parking. Such a shuttle service would transport skiers to and from the ski area on busy weekend days when the parking lot is full. Members of the local community have informed our office that there is State of Oregon land (Department of Transportation) and private land that may be available for vehicle parking. It may be possible for MAA to consider a pricing scheme that encourages ski area users to car pool by charging fees (or higher fees) to autos with less than 3 persons for parking at the ski area. This could provide additional income for MAA and incentive for ski area users to car pool or use the shuttle service from the base of the County Road. While we acknowledge that the EIS describes that MAA has incurred a cost for sponsoring a shuttle service from the City of Ashland, we would strongly encourage the Forest Service to fully consider such an option in the EIS. The use of pricing incentives at the ski area, along with providing free parking along the Interstate 5 turnoff could help minimize the costs to MAA and most importantly, to minimize the creation of impervious surface at the Ski Area.

If this option proves unworkable, we would recommend moving the new parking area to the Alternative 4 location at the Knoll, where the risk of stream sedimentation and contamination may be less than at the proposed site for all of the other Alternatives. The Knoll is characterized in the EIS as an area with more stable slopes, at much greater distance from areas mapped as Hazard Zones 1-2 (although the EIS does not predict a reduction of sediment delivery to Neil Creek compared to Alternative 2). The Knoll may also be a site where treatment of runoff may be easier to manage. This option would still require operation of a shuttle to take ski area users the short distance to the ski area on busy weekends. However, it would reduce or eliminate the present hazardous situation, where drivers searching for spaces share a highly confined paved area with pedestrians, it could minimize the release of contaminants to surface waters.

Wetlands

The EIS states that Upper Ashland Creek within the project study area contains about 28.4 acres of wetlands, or about 2.6% of the project survey area (based on National Wetland Inventory data). There are 187.13 acres of wetlands in the entire Upper Ashland Creek watershed, about 1.4% of that survey area. Based on this data, the study area contains about 6.5% of the wetlands within the Upper Ashland Creek basin. Wetlands in the project area are presently almost all undisturbed and functioning normally. Direct effects to wetlands are forecast to be small under all of the alternatives (as high as .54 and .83 acres for alternatives 2 and 6 respectively). However, the listed indirect effects of Alternatives 2 and 6 are greater (7.33 and 8.36 acres respectively). The predicted effects under Alternative 3 are less than for Alternatives 2 and 6. Affected wetlands include high value forested wetlands supporting alder, regionally rare Engelmann spruce and montane meadows.

The Specific Watershed Effects Section starting on Page IV-74 discusses the effects from the construction of ski runs and ski lifts, including land clearing, contouring, excavation, filling and addition of impervious surface on various aquatic functions in wetlands and riparian areas, but concludes that implementation of the proposed Best Management Practices (BMPs) would minimize effects. It is somewhat difficult for reviewers to evaluate whether the proposed BMPs are sufficient to bring effects to a minimal level until it can be seen how BMPs are applied and perform in a specific location. The EIS and the ROD should include a commitment to monitor affected wetlands to verify whether BMPs are proving successful, and if not, employ contingency measures to ensure that effects are kept to the predicted minimal level.

Mitigation, Restoration Measures, Best Management Practices (BMPs) and Monitoring

Proposed mitigation measures, proposed BMPs and monitoring appear in Chapter II and in the resource impact analysis Sections of Chapter IV. The list of watershed restoration projects listed in Chapter II is detailed. Proposed mitigation, BMPs and monitoring discussions are distributed throughout Chapter IV and sometimes described in general terms (see above Section). However, it is difficult to evaluate how much compensation for lost natural resource functions may be predicted from implementation of these projects, and difficult to tell what impacts the projects are intended to compensate for, if done as mitigation. The Forest Service should create a separate Section in Chapter IV, or a Section in the ROD summarizing mitigation, restoration, BMPs and monitoring projects, with a description of the intended compensation for specific impacts, as appropriate.

Implementation of the Northwest Forest Plan Aquatic Conservation Strategy

The Northwest Forest Plan's (NWFP) Aquatic Conservation Strategy (ACS) includes four primary components, riparian reserves, key watersheds, watershed analysis, and watershed restoration, and nine objectives. Since the proposed action takes place on lands within the NWFP area, the EIS must discuss whether the action is consistent with the primary components and NWFP Standards and Guidelines for the ACS. The EIS has broken out this analysis by watershed.

The Standards and Guidelines for Riparian Reserves state that intermittent streams, if in unconsolidated material or granite, should include buffers ranging from 75 to over 200' depending on the slope class (See graph entitled Ecological Protection Width Needs on Page B-15 of the NWFP ROD). The EIS should state whether these guidelines were used to

establish final riparian area boundaries.

The NWFP Standards and Guidelines for Recreation Management under Riparian Reserves specify that new recreational facilities within riparian reserves should be designed so as not to prevent meeting ACS objectives, and that existing developed recreation practices that retard or prevent attainment of ACS objectives should be adjusted or eliminated.

The EIS should describe how the proposed expansion and continued operation of the Ski Area will not preclude or retard meeting ACS objectives. The EIS shows that the Ski Area expansion will encroach on riparian reserves in the project area, particularly in Ashland Creek. The document also states that site scale effects to the ACS objectives of landscape features, watershed connectivity, physical integrity of aquatic systems, water quantity, floodplain inundation regime and plant community structure and function would be degraded. The analysis presumes the effectiveness of proposed BMPs and restoration measures to determine that the ACS objectives of water quality and sediment regime would be maintained. The EIS should explain in more detail how the proposed BMPs would accomplish this.

The EIS further concludes that the project would maintain ACS objectives at the watershed scale. The EIS presumes the effectiveness of proposed BMPs and restoration measures to determine that objectives are maintained at the watershed scale, and also relies upon the relative small size of the affected site in comparison to the watershed to arrive at this effect determination. The ACS Strategy Objectives of water quality, sediment and water quantity impacts on the Middle Fork of the East Branch of Ashland Creek may not be confined to the site but could extend a considerable distance downstream. However, the analysis states that effects would not be measurable at the watershed scale. The information presented in the EIS is not sufficient to support these conclusions. The EIS should describe in more detail how the Forest Service arrived at the watershed effect determinations of "maintain" for these three ACS objectives.

Cumulative Watershed Effects

The EIS states that the cumulative watershed effects, with the exception of the Upper Ashland Creek watershed, are minimal due to the small amount of affected area within the other watersheds. Table IV-22 uses a Forest Service model called the Equivalent Roadless Area (ERA) which considers the percentage of roaded area, develops a Threshold of Concern based on a number of hydrologic and substrate characteristics such as slope stability and channel sensitivity to
derive a Watershed Sensitivity Level risk ratio for project area watersheds in the analysis area, and finally a risk ratio. We recommend that the EIS explain the data in Table IV-22 a little more fully. Neither the past impacts on the affected watersheds, the present conditions nor the assumptions of future activity that the model used are discussed in any detail. Also, the final risk ratio numbers are somewhat difficult to interpret. Ratios for upper Neil Creek are at approximately 0.940, compared to much lower ratios for the other watersheds. The EIS should explain the sensitivity of these numbers to changing resource conditions in the ERA model. What and how much restoration activity or negative impact would cause the risk ratios to move significantly? How significant is the difference between a ratio of 0.268 and 0.939, or 0.939 and the stated yellow flag threshold of 1.0? Some of this information may be explained in Appendix E, but a summary discussion should appear in the main document to assist reviewers in interpreting the results.

Jonathan Freedman (206) 553-0266

USEPA, Region 10
Geographic Implementation Unit
1200 Sixth Avenue, ECO - 088
Seattle WA 98101
FAX: (206) 553-6984