UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

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Ref: 8EPR-N

Mary Farnsworth, Forest Supervisor
Idaho Panhandle National Forests
3815 Schreiber Way
Coeur d'Alene, Idaho 83815

Tim Garcia, Forest Supervisor
Lolo National Forest
24 Fort Missoula Road
Missoula, Montana 59804

Re: Draft Environmental Impact Statement for the Lookout Pass Ski Area Expansion; CEQ# 20160055

Dear Ms. Farnsworth and Mr. Garcia:

The U.S. Environmental Protection Agency Regions 8 and 10 have reviewed the U.S. Department of Agriculture Forest Service's (Forest Service) Draft Environmental Impact Statement (EIS) for the Lookout Pass Ski Area Expansion. In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA), the EPA has reviewed and rated this Draft EIS.

Project Background

The Proposed Action would expand the Lookout Pass Ski and Recreation Area's existing special-use permit boundary from 538 acres to approximately 1,193 acres and would add approximately 91 acres of new ski terrain. The proposal includes the following components: 1) removal of trees within the ski trail corridor and gladed area; 2) two new fixed-grip lifts; 3) an approximately 12,000-foot buried power line; 4) approximately 130 new parking spaces; 5) a 7,000-square-foot maintenance shop, 864-square-foot concrete pad with fuel storage tanks, 24 × 20-foot ski patrol service building and 13 × 10-foot restroom; 6) 4.2 miles of new and temporary roads; and 7) 2.3 miles of road decommissioning. The Draft EIS analyzes the No Action Alternative (Alternative 1) and two Action Alternatives (Alternatives 2 and 3). Alternative 2 is the Forest Service's Proposed Action.

Comments and Recommendations

Aquatic Resources

The EPA considers aquatic resources to be among the most important issues to be addressed in the NEPA analysis for these types of project activities. The Draft EIS discloses that there will be long-term impacts to wetlands, riparian areas and streams associated with the Action Alternatives. Since the St. Regis River and the South Fork Coeur d'Alene River have been impaired by sediment and temperature

increases, it will be important to coordinate with the Montana and Idaho Departments of Environmental Quality in order to ensure that project activities are consistent with the Total Maximum Daily Loads for these rivers.

Streams and Rivers: Page 180 of the Draft EIS states that the WEPP-modeled increase of 0.04 ton of sedimentation into tributary CA2 is the result of a ski trail crossing, a culverted road crossing and a buried power line, while Appendix J only states that the disturbance from a ski trail crossing of tributary CA2 was analyzed. Please clarify or reconcile these apparent inconsistencies, and if the road and power line crossings were not modeled, we recommend that they be. Also, Tables WR8 and WR10 display the data as 0.04 tons/acre and 0.004 tons/acre, while in the text of the document, the data is stated as 0.04 ton and 0.004 ton. It is therefore unclear how to interpret the data, and we recommend that the Final EIS disclose if the area to be disturbed is less than or equal to one acre or make corrections to the text, as well as clarify the time period to which these data are normalized.

While the Draft EIS considers the effects of ski trail and culvert installation and crossing of the buried power line on sediment loading into tributary CA2, it is not clear if the construction and use of the ski trail could affect the morphology of tributary CA2. We recommend that any potential impacts be disclosed in the Final EIS. We also recommend that the permitting requirements related to the crossings of CA2 be included in the Final EIS.

In section 3.10.4.2.1 (page 178), the Draft EIS qualitatively analyzed potential impacts from peak flows in tributaries in the analysis area, but not to the St. Regis or South Fork Coeur d'Alene River. This is of interest since transport of bedload sediment due to increases in peak flows would be more likely for rivers than high gradient streams. Therefore, we recommend that the Final EIS include qualitative analysis of impacts from increased peak flow for these two rivers in the analysis area.

In development of the Action Alternatives, streamside buffers were used to protect water quality and aquatic biota as prescribed by the Inland Native Fish Strategy (INFISH). The only proposed exception to this is the improvements to NFS Road 18591 within the St. Regis River 300-foot Riparian Habitat Conservation Area (RHCA) buffer designated by INFISH. The Draft EIS concludes that because the improvements are at least 100 feet away from the St. Regis River and therefore would not affect Interim Riparian Management Objectives (RMOs), this site-specific exception would be allowable. However, INFISH also requires that a watershed or site-specific analysis be done in order to establish a site-specific RMO, unless watershed or stream reach specific data support making the change by amendment. The EIS does not specify whether there is a site-specific analysis supporting the use of a 100 feet of buffer to protect against adverse effects. INFISH also states a finding that 200-300 foot riparian filter strips are generally effective at protecting streams from sediment from non-channelized flow. Therefore, we recommend that a watershed analysis be done or other site-specific data be included to demonstrate what width of buffer would be protective.

Finally, we recommend that, if possible, the Final EIS contain additional information on how the planned culverts will be designed to mimic natural channel structure and function and ensure efficient and safe fish passage. For example, it would be useful to know whether stream simulation techniques will be used, if open bottom or closed bottom culverts would be constructed and the rationale for the choice(s), and whether the design includes planning for failure of stream crossings in order to reduce the amount of sediment that would enter the stream channel should a crossing fail. These stream crossings could also be evaluated as potential wildlife corridors/movement locations, wherein the culverts could be expanded to provide enough width to accommodate upland wildlife passage and allow stream

meander.

Wetlands: The document adequately describes the wetland communities and tributary waters that are affected by the ski area expansion/upgrades. Although maps were included in the Draft EIS, the scale does not provide sufficient detail to understand the impacts to various types of wetland plant communities from proposed ski area features. Larger scale maps would more fully disclose impacts from specific ski area features and to assist with future avoidance and minimization efforts with final design. We recommend the Final EIS include 1 inch equals 100 feet scale mapping for wetland plant communities impacted by ski area features, including direct, indirect, temporary, and vegetation removal types of impacts. The location(s) of the rich fen wetland(s) mentioned in the EIS should also be included.

Both Action Alternatives would adversely impact one acre of palustrine scrub-shrub/palustrine emergent wetland (Wetland B) and less than one acre each of palustrine scrub-shrub and palustrine emergent wetlands (Wetlands A, C and D) due to terrain disturbance actions that result in the discharge of material into streams and wetlands and removal of trees and large shrubs. On page 188 of the Draft EIS, it is stated that avoidance of effects to wetlands was considered; however, no detail about this consideration is included and no mitigation is offered for these impacts to wetlands. Consistent with EO 11990 and the objectives of NEPA, we recommend that the Final EIS provide rationale as to why the proposed ski run impacting Wetland B is necessary, or could not be moved away from the wetland and still provide for a functional ski run. In addition, for any unavoidable impacts to wetlands, we recommend that the Forest Service offset such impacts through in-kind compensatory mitigation. We recommend the Final EIS identify potential mitigation sites as close to the impacted area as possible, preferably within the effected sub-watershed.

Due to the slow rate of accumulation of peat in fens, these ecosystems are considered to be "difficult-to-replace" under the EPA's and the Corps' Final Rule for Mitigation for Losses of Aquatic Resources [33 CFR Parts 325 and 332; 40 CFR Part 230 (73 FR 19594, April 10, 2008)]. Because of the irreplaceable nature and rarity of montane fen wetland ecosystems, compensation for these wetland impacts is extremely difficult. The EPA therefore strongly recommends avoidance of these highly valued resources, and that the Forest Service consider the Mitigation Rule to protect aquatic resources even when a CWA Section 404 permit is not required.

The Draft EIS concludes that alteration of Wetland B would not substantially affect the functions and services provided by the wetland because the hydrologic connection (surface and subsurface water flow) would remain unchanged. Also, impacts to 9% of Wetland B is considered in the Draft EIS to be insignificant, but information is not provided to indicate that the number of acres that will be left is sufficient to avoid significant effects, including effects on rare plant and sensitive aquatic species. Therefore, we recommend further explanation of this conclusion, and if the road decommissioning across Wetland B would serve as compensatory mitigation for impacts from ski trail construction, please clarify this.

Timber Harvest and Road Construction

Timber Harvest: On page 90, the Draft EIS states that acres and volume removed are the indicators for impacts to stand composition and volume. However, only data on volume are presented. Please add data on acres removed, as area and percent of area harvested are important metrics for understanding impacts. In general, we recommend including a percentage metric throughout the document, as percentages provide context for the amounts presented.

The Draft EIS includes some planning regarding mechanisms of timber harvest, and we recommend that these plans be refined in the Final EIS. For example, the Draft EIS states that during ski trail construction, harvest would be conducted via ground-based yarding using wheeled and tracked equipment (including forwarders). Some wheeled equipment is more damaging to soils; therefore, we recommend that the relative use of each be disclosed and at the same time encourage the Forest Service to use low impact equipment where possible and particularly in areas sensitive to soil disturbance. Similarly, Appendix E states that log-length skidding and yarding would be required unless otherwise approved, and skidding has a higher likelihood of causing soil disturbance and erosion. We therefore recommend that the Final EIS include more detail on where each method will be used.

Finally, Table FV11 on page 93 compares snags/acre and downed woody debris/acre by alternative. We recommend comparing these metrics to forest plan or regional guidelines.

Road Construction: We appreciate the Forest Service's plans to construct approximately 60% (0.8 mile) of proposed temporary roads on existing trails, tracks and unmanaged Forest Service roads to minimize vegetation and soil disturbance. The process for decommissioning of temporary (and permanent) roads is not completely clear, however, as different sections of the Draft EIS are not consistent regarding what actions are planned. We therefore recommend that these apparent inconsistencies be reconciled in the Final EIS. Additionally, if fertilization of reclaimed roads would occur, we recommend fertilization be done during dry seasonal conditions in order to reduce nutrient-laden stormwater runoff.

Where forest roads are cut into a slope, they can potentially intersect shallow groundwater, and a seepage face then forms along the road cut. This causes the groundwater flow to be redirected, occurring as surface water in ditches rather than as shallow subsurface flow. Such an alteration can influence the timing and magnitude of peak flows because the surface water moving through ditches typically reaches a stream more rapidly than subsurface water does. The interception of shallow groundwater may also reduce groundwater flow to downslope environments (e.g., vegetation, springs and seepage areas). If practical, we recommend mapping groundwater flow and estimating the groundwater portions of a hydrologic budget to assess the potential of road construction to impact groundwater. This information can be used to determine proper road placement to avoid adverse effects on groundwater flow and/or causing locally saturated conditions.

Soil Resources

The basis for the Draft EIS' conclusion that there would be minimal long-term effects on soil productivity due to the Proposed Action depends on the resource protection measure in Appendix E that large woody debris would be retained on the ground, as practical. Page 93 of the Draft EIS also states that forest vegetation and soil resource design features would be implemented to maintain downed wood and snags as feasible. It appears, however, that the vast majority, if not all, of proposed activities would require that coarse woody debris and snags be removed from the forest floor; therefore, it is unclear how application of this resource protection measure would result in minimal long-term effects on soil resources. As stated in the Draft EIS, there is little downed woody debris currently present within the analysis area, which suggests that cumulative effects on soil resources may occur; however, such effects have not been considered.

It is also unclear how much compaction would be expected from activities on trails, including mechanized grooming; therefore, we recommend that the Final EIS include fuller analysis and disclosure of these effects. As stated in the Draft EIS, summer biking is currently allowed in Lookout

Pass Ski and Recreation Area, and would continue to be allowed in the expansion area. Mountain biking can have a significant impact on soils; therefore, the Final EIS should include analysis of sedimentation caused by mountain biking, which could be based on modeling or available data on effects from biking in the current ski area.

Climate Change and Sustainability

The Draft EIS states that between 1938 and 2015, the ski area received an average of 264 inches of snow per year. Since averages over an extended period of time have limited usefulness, we recommend looking at trends in snowpack in the ski area over a similar period of time. Furthermore, when we accessed the Western Regional Climate Center's website, which is the reference provided in the Draft EIS for the stated average of 264 inches of snow per year, data were only available for years 1940 – 1958, and additional constraints based on maximum allowable numbers of days for which data are missing would reduce that to years 1943-1946 and 1948-1957. Using data from the U.S. Department of Agriculture's Natural Resources Conservation Service Water, it can be determined that between 1955 and 2015, snowpack measured on or near April 1 decreased in the Lookout Pass Ski Area by 36% (data downloaded from https://www3.epa.gov/climatechange/science/indicators/snow-ice/snowpack.html on April 7, 2016).

The Draft EIS also states that snowmaking is not required in the Lookout Pass Ski Area; however, with continuing climate change, the decreases in snowpack cited above may to continue. While Appendix A of the Draft EIS points to the Council on Environmental Quality's (CEQ) 2010 draft guidance that guides agencies to "recognize the scientific limits … to accurately predict climate change effects, especially of a short-term nature, and not devote effort to analyzing wholly speculative effects" as reason for why climate change effects were not considered in the Draft EIS, we note that this draft guidance was revised in 2014 and no longer includes this language. We also consider currently available data on trends and predictions related to temperature increases and snowpack decreases to be robust and not of a short-term nature. Therefore, we recommend that the Forest Service analyze predicted effects of future climate change on area resources and the project itself, including its effects on snowpack in the ski area and the potential for snowmaking to be needed in order to provide skiable terrain. The Climate Impacts Group at the University of Washington (https://cig.uw.edu/) may be able to help direct the Forest Service in determining what information is available for the analysis area. Including future climate scenarios in the Final EIS would help decision makers and the public consider whether the environmental impacts of the alternatives would be exacerbated by climate change and if additional management considerations and/or mitigation measures may be warranted. If it is determined that there may be a reasonably foreseeable need for additional snow, we recommend the general effects of snowmaking be analyzed and disclosed in the Final EIS.

We also recommend that the Final EIS quantify and disclose greenhouse gas (GHG) emissions that would result from both project activities and expected increases in vehicle traffic. The EPA does not recommend comparing GHG emissions from the proposed action to global emissions. As noted by the CEQ revised draft guidance (https://ceq.doe.gov/current_developments/docs/nepa_revised_draft_ghg_guidance_searchable.pdf), "this approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make relatively small additions to global atmospheric GHG concentrations that collectively have huge impact." The EPA also recommends that the lead agencies do not compare GHG emissions to total U.S. emissions, as this approach does not provide meaningful information for a project-level analysis. Consider providing a frame of reference, such as an applicable federal, state, tribal or local goal for GHG emissions reductions, and discuss whether the

emissions levels are consistent with such goals. We recommend the Final EIS also include mitigation measures, such as building efficiency upgrades and use of clean energy sources and/or variable-frequency drive motors, to reduce emissions. As part of this, we recommend that the Final EIS disclose how the project will align with Executive Order (EO) 13693, Planning for Federal Sustainability in the Next Decade, which replaced EOs 13514 and 13423. We suggest that the Final EIS highlight some of the main sustainability components that would be incorporated into the proposed facilities, with consideration of whether some components of the project could be designed to be certified as LEED Gold or LEED Platinum.

Wildlife and Habitat

The Draft EIS frequently cites the availability of adjacent or other habitat or linkage areas as a basis for limited effects on wildlife from the Proposed Action. We recommend that this be further analyzed, with consideration of preferred areas or challenges of changing location, for example, for nesting birds or animals denning in snags at the time of timber harvest. The Draft EIS contains no analysis of the effect of reduced snags on wildlife habitat and sustainability (e.g., for fisher, pileated and black-backed woodpeckers, and rodents and their predators). In addition, the adverse effects of the planned parking lots on the lynx linkage within the project area was disclosed in the Draft EIS, and page 7 of Appendix E states that new permanent roads should not be built in areas identified as important for lynx habitat connectivity. It is not clear if the planned parking lots were considered in making the determination that the Proposed Action may effect, but is not likely to adversely affect, Canada lynx. In the determination of effects on Canada lynx in the Final EIS, we recommend including and discussing the effect of the parking lots on the lynx's linkage area, as well as consider mitigation for this effect.

The Draft EIS predicts that traffic will increase by approximately 5% during the ski season as a result of either Action Alternative, and concludes that this increase will result in minimal direct effects due to it being a relatively small increase over existing conditions. We recommend that cumulative transportation effects be specifically considered, including project effects and other reasonably foreseeable growth in traffic. If cumulative effects are anticipated, we recommend that the Forest Service consider mitigation for effects of increased traffic, e.g., through identification of wildlife movement corridors and construction of wildlife crossing structures to restore ecological connectivity and prevent wildlife-vehicular collisions.

The Draft EIS discloses that approximately 126 to 129 acres of vegetation removal would occur in the Lookout grizzly bear linkage zone. The Draft EIS indicates this removal accounts for less than 1% of existing habitat in the grizzly bear "action area", which is larger than the Lookout linkage zone. For determining significance of effects to the project area, it may be appropriate to disclose the percent of the Lookout grizzly bear linkage zone being altered by vegetation removal.

Finally, since herbicide use will be restricted within 100 feet of tributary CA2 to protect aquatic species, it would be useful to know if mechanical methods of weed removal would be used instead. If not, we recommend that effects of this restriction on noxious weeds be disclosed.

Purpose and Need

Regarding the need to maintain high-quality skier experiences on high-visitation days, past growth in visitation to the ski area is attributed to population growth in nearby counties. However, the growth in skiing far outweighs the growth in population (13% growth in population over 13 years vs. 40% growth in visits over 10 years). This may suggest that the expansion itself may have led to much of the growth in skiing. We recommend looking more closely at year-to-year changes in population vs. ski visits,

especially in the years immediately after the past expansion. If increase in visitation was more correlated with the expansion than with population growth, we recommend considering the potential for induced growth from this project, as well as the indirect environmental impacts from that growth, as part of the cumulative effects analyses.

The second need for the proposed action identified in the Draft EIS is to maintain ski terrain alignment with local market demand. However, the Draft EIS does not evaluate whether the Proposed Action meets this need. The Draft EIS indicates that during the 2014-2015 ski season, beginners made up the largest population of visitors and currently have only one trail, but no new beginner trails would be included, nor can be based on available terrain in the expansion area. The next largest population was made up of low intermediate users, and only 3 more acres of trails in this terrain category would be included in the Proposed Action. Intermediate and advanced intermediate users were the smallest populations of visitors, and the majority of new proposed trails are in those terrain categories. There are currently only 16 acres of advanced intermediate terrain (the second smallest acreage after beginner terrain); however, the Proposed Action only increases this to 30 acres, while intermediate terrain would be enlarged from 54 acres to 108 acres. Therefore, we recommend clarifying how this expansion fulfills the need for the project. Establishing objectives, i.e. metrics, for success in meeting the need can be helpful.

Development of Alternatives

On page 11, the Draft EIS lists analysis issues that were not essential in developing action alternatives but which were analyzed for potential effects. These included fish and wildlife, soils and special-status plants. It is not clear to us why these issues were not considered key in developing alternatives. We did not find the rationale for these decisions in the Draft EIS. Given that Alternative 3 was developed to respond to concerns over unacceptable impacts to watershed health and wildlife, it seems that wildlife and watershed health were considered and that soils may have been considered. It is not clear why the fish issues were not considered key in developing alternatives. We recommend that the Final EIS discuss the reasons why fish and special status plants were not considered essential to developing alternatives, or consider developing an Alternative that addresses these issues.

In Alternative 3, we support protecting watershed health by eliminating all temporary road construction by using skid trails. We recommend that the Final EIS provide further explanation for why the following changes from the Proposed Action would result in less impact to watershed health and wildlife:

- eliminating three ski trails (one of which would be replaced with additional gladed terrain) to expand the size of some inter-trail leave islands, and
- increasing the size of the gladed area to remove more insect-damaged trees.

Specifically, we recommend that the Final EIS describe expected benefits from increasing the size of the inter-trail islands. We also recommend describing the watershed and wildlife benefits and impacts associated with removing insect damaged trees. For instance, the Final EIS could assess whether and to what extent the sensitive black-backed and pileated woodpeckers that are present in the analysis area could be negatively affected by the loss of dead trees.

Indirect and Cumulative Effects Analyses

The EPA recommends that the Final EIS assess whether the project would have indirect effects associated with induced growth around the Lookout Pass Ski and Recreation Area. Growth can affect land use, habitat and resources. If approved, this would be the second expansion to have occurred in 13 years, and the Draft EIS indicates an expectation for increased visitation and economic growth.

Analyzing what growth likely occurred as a result of the first expansion would be informative for such an analysis.

CEQ's guidance, Considering Cumulative Effects under the National Environmental Policy Act, stresses importance of defining accurate baselines for the affected environment and thresholds beyond which cumulative effects significantly degrade or enhance a natural resource or ecosystem. The Draft EIS does not define baselines or thresholds for cumulative impacts; therefore, we recommend that, to the extent possible, the cumulative effects analysis be expanded in the Final EIS to incorporate such benchmarks.

In various places the Draft EIS states that subjecting construction and vegetation removal to design features and practical mitigation measures indicates that significant cumulative effects to resources would not occur. Design features and practical mitigation measures do not necessarily mean that actions will have no cumulative effects; therefore, we recommend that these conclusions be removed in the Final EIS and be replaced by consideration of estimated cumulative effects in relation to the thresholds for significant effects.

Also, we assume that the "2003 ROD" refers to the determination for the previous ski area expansion at Lookout Pass, but it is not included in the list of references. Please clarify and include the appropriate reference in the Final EIS.

Other Considerations

We recommend considering the following suggestions in order to assist readers in understanding the impacts of the ski area expansion, and placing the impacts in the context of the landscape, proposed development and relevant guidance and rules:

- Clarify in the "Management Framework" sections which provisions are desired conditions vs standards vs guidelines.
- Map labeled streams and proposed development and rivers on Figures A6 and WR1, respectively.
- Map both proposed development and labeled streams and rivers on Figures CR1 and F1.
- Map ski trails on Figure SO1.
- Map proposed development on Figure WR2.
- Disclose what activities may be subject to permitting requirements on Table WR5, as was done for the crossing of tributary CA2 and the Idaho Stream Channel Protection Act.
- Change "EO 11990 – Management of Wetlands" to "EO 11990 – Protection of Wetlands" in Table WR5.

Conclusion and Rating

Pursuant to EPA policy and guidance, the EPA rates the environmental impact of federal agency actions and adequacy of the NEPA analysis. While we support the fewer changes of Management Areas from riparian area to ski area, the smaller effect on downed woody debris and the construction of skid trails instead of temporary roads offered by Alternative 3, the EPA rates the Forest Service's Proposed Action (Alternative 2) and Alternative 3 as "EC-2" (Environmental Concerns-Insufficient Information). The "EC" rating means that the EPA's review has identified potential impacts that can be avoided in order to fully protect the environment. The "2" rating means that the Draft EIS does not contain sufficient information to fully assess environmental impacts. We recommend that the identified additional information, data, analyses, or discussion be included in the Final SEIS. A full description of the EPA's rating system can be found at: http://www2.epa.gov/nepa/environmental-impact-statement-rating-

system-criteria.

We appreciate the opportunity to review this project and hope our recommendations help the Forest Service when finalizing the EIS. If you have any questions, please contact me at 303-312-6704, or Dr. Melissa McCoy, Lead Reviewer for this project, at 303-312-6155 or mccoy.melissa@epa.gov.

Sincerely,

Philip S. Strobel
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation