Comments on Bear Knoll Preliminary Environmental Analysis

CUMULATIVE EFFECTS

COMMENTS:
This proposal neglects to assess the cumulative effects of this proposal in light of the four additional projects being implemented in the immediate area.

The Bear Knoll timber Sale is directly adjacent to four other timber sales and in total would be a loss of 5,134 acres, but the Forest Service failed to consider the effects of these other sales when planning Bear Knoll. The EA does not assess cumulative effects.

RESPONSE:
The cumulative effects of surrounding proposed and implemented timber sales including Osprey, Hilynx, Diablo and Juncrock are discussed in the EA. The chart on pages 99-101, lists all of the other timber sales in the area and the cumulative effects associated with those projects were discussed including: sedimentation(page 106), stand density and health on a larger area (page 108), dispersal habitat and the species associated with dispersal habitat (pages 108 & 109), nesting, roosting and foraging habitat and the species associated with that habitat (page 109), late seral habitat and the species associated with that habitat (page 110), snags and down log levels and the species associated with that habitat (page 110), forage levels and the species associated with forage (page 110), open road density and the affected species (page 111),early seral habitat and the species associated with that habitat (page111), access to recreationists and special forest product gatherers (page 112), noxious weeds (pages 113 &114), air quality (page 114), financial resources (page 114), roadbed damage (page 115), and cattle grazing (pages 115 &116).

COMMENTS:
The Bear Knoll PEA fails to adequately consider the cumulative effects of the proposed project, and past, present and future forest service activities.
RESPONSE:
Cumulative effects are discussed in the EA (pages 101 - 116). The discussion includes a table on page 99 that describes past, present and future Forest Service activities.

COMMENTS:
What are the cumulative effects in favoring larch, Douglas-fir and ponderosa pine in grand/fir western hemlock forest? What are the cumulative ecosystem (i.e. flora/fauna interactions) effects of this management approach at various scales?
RESPONSE:
It is not expected that a plant association would change. These species are native species to this area and components of the ecosystem and are being maintained at historic conditions.

COMMENTS:
What are the cumulative effects of the removal of optimal deer/elk habitat?
RESPONSE:

The cumulative effects to deer and elk and Management Indicator Species are discussed on pages 110 & 111 of the EA, including optimal thermal cover and forage.

COMMENTS:
The EA did not adequately describe the cumulative effects on water quality and wildlife habitat as required by NEPA.
RESPONSE:
Water quality cumulative effects were discussed on page 102 -107 of the EA. The cumulative effects to wildlife were discussed on page 108 - 111 of the EA.

PREPARE AN EIS
COMMENTS:
The cumulative impact of the more than 2,000 acres already logged, and the more than 5,000 acres in the immediately adjacent areas is already more than should be done without a full environmental impact statement.
RESPONSE:
Cumulative impacts were considered in the effects analysis, including the cumulative impact of adjacent timber sales (EA pages 99 - 101).

THINNING/SILVICULTURAL PRESCRIPTION
COMMENTS:
Species within the project area include western red cedar (actually important species to the Tribe), but the preliminary analysis does not mention the intensity of harvest on western red cedar. When projects are planned within the ceded and usual and accustomed lands of the Confederated Tribes of the Warm Springs Reservation, we would like to see that negative effects to western red cedar at least considered if not minimized.
RESPONSE:
Neither of the alternatives proposes harvest of any Western red cedar. There is a very small number of Western red cedar in the planning area and the proposal is to retain minor species. In addition, none of the units proposed are within riparian reserves where western red cedar is normally a larger component of the stand.

COMMENTS:
In the EA, describe the conditions of plantation forests with merchantable trees and why these stands involved in the Bear Knoll project are higher priority than every other dense stand of plantations on the Hood River District.
RESPONSE:
Within the planning area, stands were identified based on density, age, etc. The Bear Knoll planning area was chosen based on its suitability for timber harvest as identified in the purpose and need.

COMMENTS:
Thinning stands younger than 50 years old should be a higher priority than thinning stands older than 50 years.

Has the Forest Service fully considered the possibility of thinning young dense stands elsewhere on the District that would produce volume and respond better to thinning?

RESPONSE:

In general, many of the stands that are younger than 50 years old on the eastside of the forest are either not of merchantable size or are not economically viable for commercial entry at this time. The Hood River Ranger District is currently looking for opportunities for thinning elsewhere on the district. However, only treating younger stands somewhere else on the District would not meet the purpose and need for treatment of stands in this planning area.

COMMENTS:

Any thinning should not remove stems larger than12 inches dbh.

RESPONSE:

The silviculture analysis was completed by a certified silviculturist based on the purpose and need of the stands proposed in the planning area. Overstory diameters average approximately 13 to 16 inches diameter breast height (DBH). Midstory diameters average from 7 to 12 inches DBH. Selection of which trees to be removed is based on meeting silvicultural objectives for the desired stand density thereby resulting in improved stand health of the trees left on site.

COMMENTS:

Forest health is better served by thinning from below. Removing the small diameter boles improves forest health without significantly reducing crown cover.

RESPONSE:

The proposal calls for a thinning from below, which would not significantly reduce crown cover. As discussed in the EA, dominants and co-dominants will be retained in the stands (EA page 16).

COMMENTS:

In the EA, USFS should provide stand history data for each unit.

RESPONSE:

The EA discloses that the age of the stands is 70-95 years old (EA pages 1, 22, and 51). Tables 2-1 and 2-4 lists the existing condition of each stand (EA pages 23 and 26).

COMMENTS:

Unit prescriptions perpetuate uniformity and homogeneity. The plan is to have a very uniform thin between and among stands (basal area and trees per acre). We suggest that you include in the EA in tabular form detailed information about the relative densities in each stand. Please provide some detail about the target relative densities post-treatment in each stand and how much relative density variability there will be post-treatment in each stand.

RESPONSE:

The objective is not to produce a homogenous, uniform proposal. The densities are in terms of basal area (see Tables 2-1 and2-4 on pages 23 and 26 of the EA). Based on existing and desired basal area and the variability in tree diameters existing in the stands, this proposal would result in what you describe as variable densities.

COMMENTS:
Variable density thinning (VDT) is consistent with matrix allocation. [It] is appropriate in the matrix because VDT expands future options for multiple-use/sustained yield in its fullest dimension and VDT does not foreclose any matrix objectives.

Variable density thinning is an essential part of recovery for Northern Spotted Owls. Variable Density prescriptions will also improve connectivity by enhancing foraging opportunities for dispersing predators such as spotted owls (and other raptors), marten, fisher, etc. VDT will help increase the complexity of the forest (structural complexity and plant species diversity) thereby increasing populations of owl prey species and enhancing owl foraging opportunities.

Follow best available science to design variable density thinning prescriptions. If this project is truly going to promote variable residual density between and among stands, USFS must develop a thinning protocol that fits with the current science. We would support the creation of a number of low residual retention gaps in upland forests (on the order of one gap for every 5 or 10 acres thinned). We do feel that these gaps should not be small patch cuts, but have scattered trees in them.

RESPONSE:
We have clarified the thinning prescription proposed in the EA to better reflect the result of variable density thinning (EA Pages 16 and 22). We do not disagree that early thinning is desirable. Natural second-growth stands will respond to thinning by maintaining the growth rates of the retained trees. If not thinned, there would be a gradual decline in growth rates. The intent of thinning is to produce healthier trees from a silvicultural perspective. Thinning is an appropriate treatment to achieve Forest Plan objectives in matrix lands. Harvest in the matrix is consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies now and in the future. The Forest Plan contains goals for these stands to maintain health and to provide wood fiber and forest products (#43 & 44, Forest Plan p. Four-55).

Thinning would add complexity and diversity. It was not our intent to imply that thinning would be uniform. The proposal includes retaining legacy trees, a range of basal area/densities, and maintaining species diversity by retaining minor species. Some small openings would occur because of the presence of disease (as discussed in the EA pages16 and 51-53). The results would be similar to your description of variable density thinning.

OLD GROWTH TREES / OLD GROWTH HABITAT

COMMENTS:
Preserve old growth forests. This project includes logging of late seral forests and gives little to no indication as to how measures will be taken to retain those qualities.

The Bear Knoll PEA does not adequately analyze effects on late successional old growth habitat. The stands in this project are approximately between 70 and 95 years. This approximation does not adequately reflect the numerous mature and old growth

characteristics present in many of these stands. A number of the stands have large old remnant trees and snags, large downed logs and multi-layer canopy.

Although the PA states that "[n]either action alternative proposes to harvest and old growth" and stands in Bearknoll are "approximately 70-95 years old and diameters average 13-16 inches in the overstory and range 7-12 inches in the midstory", unit maps do not reflect this.

RESPONSE:
The action alternatives were designed not to enter nesting, roosting foraging habitat and old growth areas. There are remnant trees within the boundaries of thinning units, but these trees would be retained for structure and wildlife. The alternatives retain mature trees, down logs and snags. This is discussed on page63 and 64 in the wildlife section and page 53 in the silviculture section. Several patches of older trees were found in a couple of proposed units. Those areas were either dropped from the proposed harvest units in the Decision for this project or the entire unit was dropped from further consideration.

SPOTTED OWLS/WILDLIFE CONCERNS

COMMENTS:
The USFS is required to use the best available science when disclosing the effects of implementing a project to the public. The USFS failed to include any of the recent Northern Spotted Owl research in the PA. The FWS contract has completed a 500 page report on the status of the spotted owl and the agency must review and consider all the new information about new threats contained in this report. Reliance on spotted owl habitat models is now quite suspect, because any acre of suitable spotted owl habitat could be occupied by barred owls and effectively unavailable to spotted owls.
RESPONSE:
The wildlife biologist incorporated the FWS draft report when analyzing the proposed action and alternatives in the preliminary environmental analysis and it is referenced on page 58. The final report, (September 2004) has been incorporated into the EA. There is no new evidence to support changing the effects on spotted owls from this proposed action.

COMMENTS:
Much of the area is slated to be logged is considered suitable and/or dispersal owl habitat.
RESPONSE:
"Suitable habitat" is defined as nesting, roosting, and foraging habitat. The final project design would not enter any nesting, roosting or foraging habitat. The effects to spotted owls and dispersal habitat (habitat needed to disperse owls between suitable habitat) is discussed in the EA, pages 56-59.

COMMENTS:
This project will threaten spotted owl and red tree vole habitat.
RESPONSE:

*The effects to spotted owl habitat are discussed on pages 56-59 of the EA. The conclusion from the US Fish & Wildlife Service is that this proposal would not threaten spotted owl and red tree vole habitat (*USFWS Reference Number 1-7-05-F-0228; March 29, 2005*).*

COMMENTS:
Punching any new road miles will only increase the risk to spotted owl habitat.
RESPONSE:
The action alternatives propose no new road construction so no new road miles would increase the risk to spotted owl habitat. Temporary roads would be placed on the location of pre-existing skid trails or road footprints. As discussed in the EA on pages14, 17, 22, 23,25, 30, and 90-94, the proposed action would close an additional 5.47 miles of road. Closing or decommissioning roads in the planning area would address concerns for disturbance not only to spotted owls, but also other species. Total dispersal habitat for the planning area would still be 2078 acres (59%).

COMMENTS:
Northern Spotted Owl--The proposed action will degrade 531 acres of dispersal habitat by reducing canopy cover to 40%.
RESPONSE:
The effects to spotted owls and dispersal habitat (habitat needed to disperse owls between suitable habitat) is discussed in the EA, page 56-59, 108 and 109. As discussed in the EA, thinning would reduce crown closure in these stands to approximately 40%, but the stands would still function as dispersal habitat post-harvest. The total dispersal habitat for the planning area would be 2,078 acres (59%).

COMMENTS:
It is unclear from the PEA whether the current proposal would result in owl takes.
RESPONSE:
It is up to the US Fish & Wildlife Service to determine "take" through the consultation process. This project is included in the Willamette Province 2005-2006 Programmatic Biological Opinion for Habitat Modification. The conclusion by USFWS is that these projects are not likely to jeopardize the continued existence of the spotted owl or result in the destruction or adverse modification of spotted owl critical habitat.

COMMENTS:
Logging these units, especially 146 and 211 which border the Late Successional Reserve will degrade their immediate capacity as dispersal habitat for Northern Spotted Owl and will eliminate all the optimal cover for deer and elk.
RESPONSE:
The effects to optimal cover, EA. page 65-67, and habitat for the Northern spotted owl, EA pages56-59, are discussed. Stands 146 and 211 would still offer dispersal habitat after implementation. The planning area would still be above the 30% Forest Plan standards and guidelines for thermal cover (EA page 67).

COMMENTS:

The Bear Knoll PEA fails to adequately analyze the impacts to a number of wildlife species (including threatened, endangered and sensitive species).

RESPONSE:

The effects to wildlife species, including threatened, endangered and sensitive species, are discussed in the EA on pages 54-67. The cumulative effects of threatened, endangered and sensitive species are disclosed on pages 108-111 of the EA.

COMMENTS:

The PEA seems to be dismissive of the blight of wolverines because of their need for such a large habitat.

RESPONSE:

The effects on wolverines are disclosed on page 110 of the EA.

HERITAGE

COMMENTS:

Cultural resources such as huckleberries should be identified and mapped within the planning area, and alternatives should consider their importance to tribal culture.

RESPONSE:

A discussion of this has been added to the cultural resources section of the EA (page 97).

SOILS

COMMENTS:

The Forest Service is only maintaining the minimal, easy to gauge 15% soils analysis and not completing the full analysis needed to analyze the true effects on soils.

RESPONSE:

In addition to the measurement of the 15% soil detrimental condition (which includes compaction, displacement, and severe burning), analysis for soil organic matter and coarse woody debris is found in the cumulative effects section on pages 111 and 112 of the EA.

COMMENTS:

"Problems with erosion are not expected if closure, scarification, and/or surface cover measures are used." (PEA 59) How can this be implemented in Units 146 and 211 with the summer restriction for harvesting activities?

RESPONSE:

The seasonal restriction on activities 0.25 miles from the LSR boundary would be in effect from March 1st until July 15th. Typically, closures, scarifications and/or surface cover applications would occur in the fall and should not pose a problem in these stands.

COMMENTS:

The Bear Knoll PEA did not recognize the importance of mycorrhizal fungi on forest growth and productivity. This resource's important function in forest ecology was completely overlooked.

RESPONSE:

Analysis for soil organic matter and coarse woody debris is found on page 68 of the EA. Favorable habitat conditions for soil microorganisms, including mycorrhiza, would be

maintained for short and long-term soil productivity. Estimated to be left on site are 26.7 tons of down woody debris per acre, which meets MHFP standards and guides for fuel loading (FW – 33).

COMMENTS:
Reduce soil impacts from yarding and treatment of fuels. Ground based yarding systems coupled with new road construction, previous yarding and hauling impacts, and machine fuels piling have a cumulative impact on soils that is not well discussed in the PA.
RESPONSE:
Effects of logging systems and machine fuels piling is discussed on pages 69 and 70 of the EA. A further discussion of the cumulative effects of logging systems and pile burning was added to the EA on page 112. There is no new road construction proposed in the Bear Knoll EA. Temporary roads would be placed on disturbed ground such as existing skid trails and are included in the 15% detrimental soil condition analysis.

COMMENTS:
The USFS provides the public with data from only two stands, and only one of these stands is an actual unit that is in the proposed project.
RESPONSE:
All of the stands proposed for harvest were visited and field surveyed by a soils scientist. The two units within the entire planning area with the most soil degradation were chosen for further testing. Based on these tests it was determined that the planning area had 2% soil degradation or less (EA page 69).

COMMENTS:
USFS must use scientifically credible techniques such as the use of a penetrometer and use survey data collected from all units that are proposed in this project.
RESPONSE:
Shovel probe transects (used in the EA) are a credible technique, and because they have been used for approximately 25 years on the Mt. Hood National Forest, they provide a consistent process for measurement and comparison.

COMMENTS:
While confining temporary roads and skid trails do reduce or eliminate impacts to previously undisturbed areas, the practice sets the course of natural recovery of soil structure back.
RESPONSE:
Although there are impacts associated with using existing disturbed ground, it is preferable to confine the impacts to existing disturbed ground than to impact undisturbed ground. The effects of temporary roads have been discussed in the EA (pages 69, 92, and 99).

COMMENTS:
USFS should provide quantitative monitoring in the project area or studies in similar soils to support assertions. Since USFS has proved little in the way of monitoring data or scientific citations that support the exceptionally low detrimental soil condition estimates

following logging, we believe USFS has underestimated the cumulative impacts of yarding and hauling associated with previous logging and Bear Knoll.

RESPONSE:

Monitoring has been completed in areas with similar soils. The difficulty with comparing older treated areas with the Bear Knoll EA is that logging systems have changed substantially and have been shown to be less impactful than previous practices. As explained on 68 in the EA, shovel probe transects revealed that the existing detrimental damage is about 2 percent. Soils are very resilient in this glaciated terrain because there are physical attributes such as texture and organic matter content that resist or reduce detrimental forces imposed upon them. The baseline evaluation data completed for the project has been added to the project file.

COMMENTS:

One very important cause of soil compaction that was not discussed in the PA was the effects of machine piling. Equipment used for machine piling frequently spends more time off designated skid trail than on them. This equipment will cause soil compaction and elevated risk or erosion, particularly on slopes resulting from stream carving activity through glacial silt and soil type 7 in which "surface and subsurface erosion potentials are estimated as moderate and moderate to high."

RESPONSE:

A discussion of cumulative effects of logging systems, machine piling and burning was added to the final EA on page 112.

PLANTS

COMMENTS:

Former R6 Sensitive Plant Species-As cattle are in the area what precautions are being taken to protect species loss and habitat due to cattle?

RESPONSE:

The effects to sensitive plant species is discussed in the EA on pages 73 and 74. Surveys have been done for the last 5 years and species have not been found. Effects to R6 sensitive plant species from cattle would be evaluated in the allotment planning process and any necessary mitigation would be applied at that time.

COMMENTS:

Survey and Manage Fungi-Surveys should be done in any of the proposed units. Surveys should be done in units 146 & 160 to ensure that B. nobilissimus is not present in any of the proposed units.

RESPONSE:

All proposed treatment stands within the planning area were surveyed, including stands 146 and 160. The EA discloses the effects to Survey and Manage species on page 73; the planning area does not have suitable habitat for Survey and Manage species (EA page 73).

NOXIOUS WEEDS

COMMENTS:

The PEA includes no discussion of whether the proposed mitigations have proven to be successful.

RESPONSE:

The Forest Service utilizes a variety of measures for the prevention of noxious weed spread as described in The USDA-Forest Service Guide to Noxious Weed Prevention Practices, which is a national standard. Other landowners and other land managers already commonly use prevention practices to reduce the introduction and spread of invasive plants. The USDA Forest Service Guide to Noxious Weed Prevention Practices is located in the project file.

COMMENTS:

Table 308 shows that only two roads in the planning area are not already infested with noxious weeds. As many of these roads are only going to be partially obliterated, much of the remaining road structure becomes sites of opportunity for noxious weeds. We should be preventing their introduction. BMPs instead address outbreaks during and post harvest. The Bear Knoll PEA needs to accept the very likely spread of noxious weeds as an outcome of the proposed action and include an analysis of impacts to wildlife from using the various control methods and taking "corrective" action the PEA vaguely alludes to.

RESPONSE:

The effects of logging on noxious weeds were disclosed in the EA on page 76. The discussion includes analysis of ground disturbing activity. The proposed prevention measures include pre-treatment. A discussion of the potential impacts of these measures is included in the EA (pages 76 and 77

FIRE

COMMENTS:

Address the current body of scientific literature that established the correlation between logging road and fire starts and the correlation between logging slash and extreme fire behavior.

RESPONSE:

The relationship between logging slash and fire intensity is discussed on pages 78 and 79 of the EA.

COMMENTS:

Thinning is known to increase fire risk. Thinning opens up the forest to hotter, drier conditions and leaves small diameter wood on the forest floor which increases the risk of fire. Most thinning operations take the largest flame retardant trees and leave the smaller more flammable trees behind. Timber harvesting is sited as the primary reason for the increase in fire. Opening the canopy cover to less than 50% will promote shrub growth and dry the site. This poses an unacceptable risk of fire.

RESPONSE:

The project proposes leaving dominant and co-dominant tree species and thinning from below as explained on page 16 in the EA. The effects of reducing the basal area are

discussed on pages 22, 53 and 96. With the retention of at least 40% canopy closure there is no expectation that the project would promote shrub growth and dry the site.

COMMENTS:
Logging units 220 and 217 are unnecessary. These units are described as in condition class III fire regime. However managing such small stands to reduce fire risk will have no positive effect on the role that fire plays in these stands.
RESPONSE:
The purpose and need of this project is not focused on reducing fire severity or changing condition class.

SNAGS / SNAGS DEPENDANT HABITAT

COMMENTS:
"Walk through surveys gave the impression that much of the area was not meeting current snag and log densities standards and guidelines, the pilot survey indicated that the planning area was meeting the standards and guidelines for snags." (PEA 53) It seems strange to rely on overhead flight sampling instead of the actual work on the ground.
RESPONSE:
Surveys were not done using overhead flight sampling. The "pilot survey" referred to was an on-the-ground data gathering and subsequent research paper. One of the research plots was located in the planning area. Because it was the first year of the research project and the results had not been published, it was referred to as a "pilot project". This language was cleared up in the final EA on page 62.

COMMENTS:
We do not believe that the 4 snags per acre will meet the requirements of species that inhabit the area.
RESPONSE:
Leaving 4 snags per acre exceeds our Forest Plan Standard and Guideline and is consistent with the best available science. The effects on snag-dependent species are disclosed on pages 63-65 of the EA.

COMMENTS:
The PEA stated that live trees will be left where snags are lacking. These trees are wholly inadequate without the necessary decay process that snags undergo.
RESPONSE:
As discussed in the EA, if there is not an adequate number of current snags in a proposed treatment stand, live trees with defects, disease or greatest potential for mortality would be chosen. Clarification on this was added to the Environmental Assessment (page 64).

COMMENTS:
In order to protect snags, USFS must make adjustments to yarding and falling operations to simultaneously protect workers and snags. The USFS must do away with the caveat that they will protect snags except where they create a safety hazard. If the USFS cannot design logging systems without felling most of the snags in the area in a landscape without enough late-successional habitat in reserves, then USFS should drop the portion

of the project that requires felling a large old snag. The agency must consider this as an alternative to their proposed "management by caveat."

RESPONSE:

Logging systems have been designed so that most snags are not felled.

COMMENTS:

Maintaining clusters of snags not only makes it easier operationally to save multiple snags with a single buffered area, but it maintains pockets of snags that one would expect to find in a natural forest. The PA does not describe any snag retention measures that would ensure that where these clusters exist, they would be retained.

RESPONSE:

Logging systems have been designed so that most snags are not felled. It is common practice to mark trees as wildlife or leave trees when their stems or limbs are touching snags.

COMMENTS:

In the PA, USFS quantifies snags arbitrarily as a dead tree of a "minimum 16 inches in diameter breast height and 40 feet tall." Where does this standard come from and what science is it based upon? Snags less than 40 in height but larger than 24 inches in diameter are located throughout Bear Knoll units and must be protected.

RESPONSE:

Forest Plan Standard and Guideline FW-234 states that "wildlife trees retained should be at least 40 feet in height and 22 inches in diameter at breast height" (Forest Plan, Four-74). This was modified for the planning area to be consistent with the largest trees that are present in the stands. Although the Forest Plan lists a desired size, mitigation measures apply to all snags.

COMMENTS:

In addition to retention of all large diameter snags regardless of height and decay class, we suggest intentionally leaving green trees with elements of decay as described in DecAID, The Clackamas District recently did this with the Cloak project. "18.6 live trees per acre greater than 10 inches diameter with "elements of wood decay" would be retained."

RESPONSE:

The prescription for the Cloak project was for riparian reserves; the Bear Knoll EA does not propose any harvest in any riparian reserves.

COMMENTS:

While you have used the DecAID tool as a supplemental standard to the NWFP and RMP standards, you failed to recognize that the authors of DecAID are in fact very critical of basis of these other standards. Much of the current science is very critical of the use of biological potential model to calculate the bare minimum snags retention. USFS must justify the continued use of this outdated tool that allows for felling of snags for operational concerns.

RESPONSE:

The Forest Plan requires that biological potential (40-60%) be addressed in project analysis (Standard & Guideline FW-215, 216 and 217, FP, Four-74). This analysis is documented on page 64in the EA. In the analysis, more recent available science including the DecAID tool was also considered. The DecAID tool was not used as a supplemental Forest Plan standard. As discussed in the EA, DecAID is not a wildlife population simulator nor is it an analysis of wildlife population viability. It is not intended to predict occurrence of wildlife at the scale of individual forest stands or specific locations. It is intended to be a broader planning aid not a species or stand specific prediction tool (EA pages 62 and 63).

SENSITIVE SPECIES AND SURVEY AND MANAGE ANIMALS

COMMENTS:

Sensitive species such as the Columbia Duskysnail, Redband trout, Wolverine, Columbia oregonium and lynx will likely be affected by this proposal.

RESPONSE:

Both sensitive species and survey and manage species were discussed in the EA pages 46 and 47 and page 60, (Columbia duskysnail page 47; Redband trout page 46; wolverine pages 60 qne 61, Columbia oregonium page 61; and lynx page 60). These species were also evaluated in a more detailed biological evaluation (See wildlife BE, Appendix B and fisheries BE, Appendix Cto the EA).

COMMENTS:

We urge you to use the NFMA regulations that have been in effect for more than 20 years and not to switch to the new NFMA regulations.

RESPONSE:

The Mt. Hood National Forest is operating under the 1982 planning rule.

DEER AND ELK

COMMENTS:

The EA admits that it will destroy all optimal cover for deer and elk though, “Optimal cover is very limited across the landscape and difficult to produce.”

The EA states that the proposal will eliminate ALL the optimal cover for Deer and Elk. Optimal cover is important because it provides winter protection, offers forage and is very limited in the area.

RESPONSE:

Optimal and thermal cover is discussed in the EA on pages 65-67. Clarification has been added to the EA. The Forest Plan Standard & Guideline states, “East side Cascade deer and elk summer range 15% should be optimal cover and 15% should be thermal cover (FW-206, Four-72). The planning area would still be above the 30% Forest Plan standards and guideline for thermal cover.

COMMENTS:

The area is listed only as summer range for deer and elk. On a hike into the area on January 8, 2005, we discovered deer tracts at the juncture of Forest service Roads 43 and 264 heading south out of the Bear Knoll planning area.

RESPONSE:

Winter range is a designated area (land allocation) according to the Mt. Hood Forest Plan. Winter range areas are generally at lower elevational bands, have no snow, or the snow level is shallow and therefore food for big game is available during winter months. In warm winters, deer and elk have more areas available to them at higher elevation bands and are not restricted to winter range areas.

DISEASE

COMMENTS:

The notion that the forest is in need of harvest because of the presence of a native disease is wrong. The Bear Knoll project has been designed to eliminate the natural disease process from stands. Current scientific evidence does not support the idea that logging will reduce future disease outbreak. USFS should develop strategies to work with, rather than against, these disturbance vectors in order to promote spatial heterogeneity. USFS should recognize that forest diseases are impossible to control through logging.

RESPONSE:

The need for this proposal is discussed on pages 7 and 14 in the EA. This project is not proposed to reduce future disease outbreak. It is recognized that diseases are present in the planning area and these are discussed on page 52 in the EA.

WATER QUALITY

COMMENTS:

The analysis mentions that the number of pools per reach is well below MHFP standards for these channel types, but does not mention the significance or consequences of this low habitat diversity.

RESPONSE:

The effects of sedimentation was discussed on pages 40, 41, and 48 of the EA. Clarification was added to the EA. The proposed alternatives do not propose any ground disturbing activities in riparian reserves and the number of pools would not be affected by the implementation of this project.

COMMENTS:

The proposal does not adequately assess the rain-on-snow potential this project may induce.

RESPONSE:

The rain-on-snow discussion begins on page102 of the EA.

COMMENTS:

Cumulative, Direct and Indirect Impacts on Watershed Integrity & Aquatic Systems-The Agency needs to acknowledge current science on global warming.

RESPONSE:

The impacts on watersheds and aquatic systems are discussed beginning on page36, the cumulative effects discussion begins on page 102. The impacts of global warming are highly speculative and outside the scope of this analysis.

COMMENTS:
The PEA does not adequately address sediment issues relating to road construction and logging.
RESPONSE:
Sedimentation and road construction is address on page 91and 107 of the EA. The proposal does not include entry into riparian reserves, or new road construction.

COMMENTS:
Frog Creek Irrigation Ditch shows existing signs of heavy sediment erosion. As this stream feeds into Clear Creek, which is used by the communities of Warm Springs, more should be done to ensure this supply of quality water.
RESPONSE:
Neither the streams nor irrigation ditches in the planning area supply water to the communities of Warm Springs. None of them flow onto the Warm Springs reservation. The alternatives do not propose any ground-disturbing activity in the riparian reserves. The effects to Frog and Clear Creek are discussed, beginning on page 37 of the EA.

COMMENTS:
This is a Tier II Watershed and any action taken should ensure that water quality is not worsened.
RESPONSE:
According to the NWFP, there will be no new net increase in the amount of roads in key watersheds (ROD, B-19). As disclosed in the EA, the alternatives do not propose a net increase in road mileage, nor do the alternatives propose any ground-disturbing activity in the riparian reserves (EA pages 10, 11, 16, 43 and map on page 45). The effects of the proposed action on water quality are discussed on pages 36-50 and the cumulative effects discussion begins on page 102 of the EA.

COMMENTS:
Some units are on 10 to 30% slopes directly above Frog Creek, which already has sedimentation that exceeds forest directives and inhibits spawning habitat for fish.
RESPONSE:
The effects of sedimentation on Frog Creek ditch are discussed on page 40.

COMMENTS:
The PA does not provide a current scientific benchmark describing the condition of aquatic systems, measured in terms of temperature, turbidity, ph and fecal coliform, and without it such impacts cannot be determined.
RESPONSE:
The condition of aquatic systems is disclosed in the EA on pages 36 to 38. Impacts to water quality are discussed and begin on page 42 of the EA.

COMMENTS:
The most recent data for Frog Creek is cited from 2000, and at four years old is not current enough to assess the current conditions. Due to the fact that there is no environmental baseline, it is impossible to determine whether sedimentation has increased as a result of past logging project.
RESPONSE:
On the average, stream data is done about every 10 years. More recent field verification within the stream channel of the planning area was completed during the analysis of the Environmental Assessment. Effects of sedimentation are discussed on page 40,41 and 48, and cumulative effects discussed on page 102of the EA.

COMMENTS:
Frog Creek already has sedimentation that exceeds forest directives and inhibits spawning habitat for fish. Frog Creek already has water quality issues and this sale will only ruin the water even more.
RESPONSE:
The effects to Frog Creek are discussed on pages 37-47 of the EA. Sedimentation is discussed on pages 40, 41 and 48 of the EA.

COMMENTS:
Effectiveness of BMPs is overstated. It is misleading and disingenuous to suggest that BMPs eliminate risk to water quality There is no credible evidence to support the assertion that "As long as the design layout and best management practices (BMPs) are followed, there would be no short or long-term direct or indirect effects to fish or their spawning and rearing habitat, or aquatic mollusks or their habitat form fine sediment.
RESPONSE:
BMPs and their effectiveness are addressed on pages 30 and 31 of the EA. Monitoring reports can be found on the Mt. Hood National Forest website at http://www.fs.fed.us/r6/mthood under Forest Publications.

COMMENTS:
Granted, no riparian reserves will be entered with the project, but ground disturbance through yarding and road construction still elevates the risk of sedimentation events, as discussed in previous section.
RESPONSE:
Sedimentation from road use and harvest activity is discussed on pages 91 and 107 of the EA. No new roads would be constructed.

AQUATIC
COMMENTS:
The area is at the perfect elevation for rain on snow events. Logging is known to increase this risk.
RESPONSE:
Rain-on-snow is discussed in the EA on pages 36 and 102-105.

COMMENTS:
The EA does not stress the importance of stream discharge; in particular bankfull discharges; associated with the annual hydrograph which are responsible for the formation and maintenance of stream channel habitats

RESPONSE:
The importance of stream discharge in relation to Frog Creek is discussed beginning on page 38 of the EA.

RESTORATION

COMMENTS:
The tribe would like to see the EA include, or at least mention potential restoration activities that could occur in the future to bring wildlife and aquatic habitats up the MHFP standards.

RESPONSE:
A larger roads analysis was done for the entire project area contains recommendations for future road closures to protect wildlife habitat and lower road densities. This analysis is listed in Appendix E. Also, there are periodic forest-wide restoration EAs that focus specifically on wildlife and aquatic habitat restoration.

ROADS

COMMENTS:
Bear Knoll has a high road density. We do not feel that simply effecting a gate will prevent all the problems associated with roads. Gated roads will still have the negative impacts associated with roads such as erosion, sedimentation, increased run-off, and landscape fragmentation.

RESPONSE:
Open road density is a problem in the planning area. It has been identified as a key issue in the design of the action alternatives. The 2640230 road system would remain as a system road with seasonal closures to allow for winter recreation and fire suppression access. The intent of gating this road system was not to fix all problems, but to provide for wildlife security during the calving and fawning months. The standard from the forest plan states that, "roads open to motorized vehicle traffic should be reduced to not exceed 2.5 miles per square mile within inventoried deer and elk summer range. Localized exceptions to these road density Standards and Guidelines may occur based on environmental analysis" (FW-208, Forest Plan, Four-72). The intention is to provide for wildlife security (EA page 65). Other roads in the planning area have been recommended for closure and are included in the planning area roads analysis (chart located in the analysis file).

COMMENTS:
Roads are affecting water quality and habitat--The road density calculations in the PEA need to reflect the seasonal nature of the closure. To allow winter access into this area will only seasonally keep the road below the desired 2.5 miles per square mile.

Snowfall is becoming increasingly unpredictable. The lack of snow will allow access to the snowmobile trail for motorbikes and possibly other OHVs in addition to snowmobiles.

RESPONSE:
Without the seasonal road closures, road density would remain the same as described in the EA on pages 2 and 22. Effects to water quality are discussed beginning on page 36 of the EA. Effects to wildlife from roads are discussed on pages 14, 66 and 67. The gate included in the proposed action does not have a direct correlation to OHV use; use during low snowfall months would not change based on this proposal. As far as wildlife concerns, motorized use would still be constrained during calving and fawning months. A design feature has been added to the EA stating that the gate would not be open until the snow on the ground measures 12 inches, or is otherwise approved by the recreation staff for the Forest Service (EA, page 29).

COMMENTS:
We are concerned about the subterfuge of the PEA in relation to new road construction versus road reconstruction. New road construction applies to any road that was not previously built. While we agree that it is sometimes beneficial to place roads or skid trails on already impacted areas, it is not appropriate to dub all construction done in those sites as "reconstruction." If an actual road did not exist on the landscape previously, then by no means can road reconstruction be a term applied to roads built there. Please fix that error in the PEA.
RESPONSE:
As discussed in the EA (pages 27, 18 and 92), no new, permanent road construction would occur. Instead, the project would use existing closed or decommissioned roads for all haul routes. Some of these roads would require maintenance or reconstruction before hauling operations could occur. Temporary roads are not system roads, are not open to the public, and will be partially obliterated following logging. Most temporary roads are on existing roadbeds from previous timber harvest operations. Those temporary roads that do not follow existing roadbeds would be placed on existing skid trails, which show evidence of past use and may need reconstruction before hauling operations could occur.

COMMENTS:
It is financially unsound to further subject the roads to the effects of log haul, and it's more expensive to keep the road open and maintained than to close.
RESPONSE:
A planning area roads analysis, detailing recommendations for road closures, decommissioning, access, etc. was completed along with this process. This analysis includes an examination of financial, as well as other factors. The short-term costs of road use for timber harvest-related activities would be paid for by the contractor. The roads analysis can be found in the project file.

COMMENTS:
While some of the system roads listed in this table may only be used for hauling and not yarding, USFS fails to make that distinction.

RESPONSE:
All of the systems and temporary roads would be used for hauling. Tables 2-2, 2-3, 2-5, and 2-6 in Chapter 2 of the EA lists the roads that would be used for harvest (EA, pages 24 and 26).

COMMENTS:
Fully analyze impacts of road construction/reconstruction.
Agencies must properly identify the costs and benefits of the road construction. USFS did a poor job of accounting the costs and benefits of the roads. USFS fails to provide the public with the information necessary to calculate how many acres each road will enable the purchaser to access that could not otherwise be accessed with the existing road system.

In the EA, USFS must provide the public with maps and numbers that demonstrate the opportunity costs of not constructing the temporary roads described in the PA. Which portions of units 139, 146, 164, 167, 174, 177, and 186 cannot be accessed via existing system road and skid trails that are both operationally feasible and less damaging to soils than temporary roads?

Many of the research information regarding the impacts of roads have been published subsequent to the development of the Mt. Hood RMP, the Northwest Forest Plan, and Best Management Practices. In light of these results, USFS must re-evaluate whether standards to which the Bear Knoll analysis is tiered are adequate to avoid impacts to the ecology the USFS is entrusted to protect.
RESPONSE:
No specific research was included in the comment letter. The interdisciplinary team uses the current science in their determination of effects in relation to roads. Alternatives II and III were initially analyzed for helicopter logging (EA, page 27). This alternative focused on using helicopters to log the area, rather than a ground-based system. Due to the cost of the helicopter logging, neither alternative was determined to be economically feasible with a helicopter logging system. There is already a road system in place, yet no suitable helicopter landing.

COMMENTS:
USFS is wrong to state "Alternative II does not propose new road construction", when in fact alternative II calls for temporary road construction.
RESPONSE:
All temporary roads will be placed on ground disturbed by previous skid trails or existing road foot prints. These are not system roads, are not open to the public, and will be partially obliterated following logging.

COMMENTS:
It is possible and even likely that a new gate and partial obliteration will not be effective at keeping roads closed.

RESPONSE:
The EA calls for a heavy duty gate similar to the heavy duty gate at the junction of 4300 and 4320. Monitoring of this road has shown that it has been effective.

COMMENTS:
USFS fails to disclose the problem with illegal OHV trail system construction in Mill Creek.
RESPONSE:
The Mill Creek is not in the planning area. OHV use is discussed on page 101 of the EA.

COMMENTS:
Temporary roads may act directly or indirectly on wildlife population viability and/or ecosystem process
RESPONSE:
The effects of temporary roads on wildlife populations are discussed in the EA (pages 64, 66 and 67).

COMMENTS:
The November 2000 national Forest Roadless Area Conservation FEIS p 3-30 says that temporary roads are not designed and constructed to the same standard as classified roads and therefore result in a "higher risk of environmental impacts." The NEPA analysis must account for this increased risk of temporary roads compared to permanent roads
RESPONSE:
Temporary roads were analyzed by resource specialists and are documented through the EA, including pages 16, 25, 30, 48, 69, 91, 92, and 99.

COMMENTS:
Gates are not effective as road closures. They should be returned to nature.
RESPONSE:
It is true that the District has experienced ineffective road closures in the past, including berms and guard rails. Even some lighter gates used in the past have been ineffective. The gate we are proposing is a heavy duty gate that has had a high rate of success and has been more effective than any other method of road closures. A roads analysis has determined that this system is needed for management purposes including: recreation, timber management and access for fire suppression.

COMMENTS:
We also encourage you to consult the following resources in making your determination to build new road miles.

1. Robert Coats, et al., Assessing Cumulative Effects of Silvicultural Activities, (1979) (significant increases in peak flow post-harvest).
2. Robert Harr, et al., Changes in Storm Hydrographs after Road Building and Clear-Cutting in the Oregon Coast Range, 11 Water Resour. Res. 436-44 (1975) (same; timber harvest leads to soil compactions and increased floods).

3. Robert Harr, et al., Pacific Northwest Research Station, U.S. Dep't of Agriculture, Changes in Stream-Flow Following Timber Harvest in Southwestern Oregon, PNW-249 (1979).
4. Robert Harr, et al., Pacific Northwest Research Station, U.S. Dep't of Agriculture, Effects of Timber Harvest on Rain-on-Snow Runoff in the Transient Snow Zone of the Washington Cascades, PNW 88-593 (1989).
5. J. Jones & G. Grant, Peak Flow Responses to Clear-Cutting and Roads in Small and Large Basins, Western Cascades, Oregon, 32 Water Resour. Res. 959-74 (1996).
6. K. Lyons & L. Beschta, Land Use, Floods, and Channel Changes: Upper Middle Fork Willamette River, Oregon (1936-1980), 19 Water Resour. Res. 463-71 (1983).
7. M. Reid & T. Dunne, Sediment Production from Forest Road Surfaces, 20 Water Resource. Res. 1753-61 (1984).

RESPONSE:

These documents were not submitted with the comment letter. The reports do not contain significant new information; in fact some are quite old. Qualified resource specialists analyzed effects of temporary road construction and the effects are disclosed on pages 16, 25, 30, 48, 69, 91, 92, and 99. The Bear Knoll project does not include any clearcutting, which is the subject of some of these reports. The EA does consider the impacts of the project on hydrology, peak flows, soils, and sediment

RECREATION

COMMENTS:

I strongly encourage the Forest Service to restrict snowmobiles in the Late Successional Reserve.

RESPONSE:

The current snowmobile routes run adjacent to the two 100-acre LSRs. Typically snowmobile use is restricted to these routes due to physical landscape characteristics.

COMMENTS:

The pressure for new trails in the vicinity is intense and ought to have been acknowledged in this PEA.

RESPONSE:

The Forest is currently working on a forest-wide OHV plan that will designate approved OHV areas and/or routes. This discussion was added to the cumulative effects section of the EA, pages 101.

OTHER

COMMENTS:

There are significant amounts of special forest products, that when properly harvested, are a sustainable and significant income for the citizens of Oregon.

RESPONSE:

The proposed alternatives in the EA do not preclude the harvest of special forest products. Special forest products harvestings is discussed on pages64, 101, 113, and 118 of the EA. The gathering of special forest products was discussed in the cumulative effects section on page 101 of the EA.

COMMENTS:
The project area should be considered for a Research Natural Area.
RESPONSE:
Research Natural Areas are areas of "land in as near a natural condition as possible that exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for non-manipulative scientific and education purposes" (Forest Plan, Glossary, 26). Areas were identified during the forest planning process. This area was not considered for a research natural area because it has been modified in the past by roading, timber harvest, recreation, grazing as well as other uses.

COMMENTS:
The PEA fails to mention desired future conditions and priorities in the Northwest Forest Plan (NWFP) and MHLRMP that call for preserving plant and animal diversity, highlighting only those Desire Future Conditions that support managing the land for wood products production. This omission lends to a bias toward timber emphasis at the expense of biodiversity that is evident throughout the document.
RESPONSE:
The desired future condition discussion for the planning area is discussed on page 14 of the EA.

CLEAR CUTS

COMMENTS:
Please stop this clear cut.
I have seen the shelterwood area and it is high quality wildlife habitat. Bear Knoll timber sale in White River Watershed need protection from Clear Cutting
RESPONSE:
All of the action alternatives propose thinning; clearcut, regeneration or shelterwood harvests are not proposed.

MANAGEMENT INDICATOR SPECIES

COMMENTS:
Failure to manage for Management Indicator Species (MIS).
The proposed changes to NFMA have not specifically amended the Mt. Hood RMP and USFS is still obligated to conduct surveys for MIS. The Mt. Hood National Forest has failed to conduct population studies of management indicator species in the planning area, and has not studied the relationship between habitat change and viability of the MIS as required by NFMA and the MHMP.
RESPONSE:
The analysis of effects to management indicator species is found in the wildlife section (EA, page 64 and 65) and the fisheries section (EA, pages 47). This proposal is consistent with the management direction for MIS species through the Mt. Hood Forest Plan. As discussed in the EA, the Forest contains sufficient habitat to provide for the needs of these species.

ECONOMICS

COMMENTS:
Poor, incomplete economic analysis used.
NEPA requires that the public have an opportunity to review the effects of alternatives before a decision is made. USFS has failed to supply the public with any meaningful economic analysis or any quantitative information about costs and benefits of the different alternatives.
RESPONSE:
A complete financial analysis, including benefits/cost ratios, is in the EA on pages 88 and 89.

COMMENTS:
The Forest Service fails to supports its contention that the project is necessary for local economies. The PEA lacks analysis that shows that this specific sale meets social and economic needs of the local *and* regional economy.
RESPONSE:
One of the objectives of the project is to provide wood fiber for local and regional economies. Benefit/cost ratios have been added to the financial analyses.

COMMENTS:
The timber sale does not capture the highest value of the timber resource. The Forest Service failed to incorporate information about the value of unlogged forests.
RESPONSE:
The Forest is not directed to analyze the highest value. The objective in matrix lands (as designated by the Northwest Forest Plan) is to provide wood fiber for local and regional economies.