

**BEAR SPRINGS RESPONSE TO COMMENTS  
APPENDIX B**

| <b>Letter 1</b>     |   |  |                  |
|---------------------|---|--|------------------|
| <b>Issue</b>        | <b>Comment</b>  | <b>Response</b>  | <b>Comment #</b> |
| <b>Silviculture</b> | “...the forest service rationale for the thin is very much overstated. For example, we saw a great diversity of trees, not a mono-culture – great structural variation in age, spacing and shape of forest trees” | Diversity has many elements and is not limited to species or structural composition. “There are many elements of diversity including but not limited to genetic, structural, horizontal, and vertical. At the landscape scale, a mix of forest types and ages can provide habitat for a wide range of plants and animals. At the stand scale other elements become more relevant such as species composition, snag abundance or the number of canopy layers.” Stand data including diversity elements were gathered by field visits, stand exams, walk throughs and remote sensing. Based on the data obtained through the above methods, it was determined that the stands proposed to treat as part of the Proposed Action do not meet the desired future condition as outlined in section 2.2.10 (Desired Future Condition). For more information on diversity, refer to section 4.1 (Vegetation Resources) and 4.1.2 (Landscape and Stand Diversity) specifically. | 1                |

| <b>Letter 2</b> |                |                 |                  |
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| <b>Issue</b>    | <b>Comment</b> | <b>Response</b> | <b>Comment #</b> |

| <b>Letter 2</b>     |   |   |                  |
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| <b>Issue</b>        | <b>Comment</b>  | <b>Response</b>   | <b>Comment #</b> |
| <b>NEPA Process</b> | “I was shocked that the stands I entered did not match the scoping letter description. I saw 8 different types of trees... There was a significant variation in the tree age” | Information provided during the scoping process was not intended to be stand specific, but rather give a representative description of the overall stand conditions. The Forest Service Handbook (1909.15 Chapter 10. Section 11) states that “Scoping includes refining the proposed action, determining the responsible official and lead and cooperating agencies, identifying preliminary issues, and identifying interested and affected persons... The results of scoping are used to clarify public involvement methods, refine issues, select an interdisciplinary team, establish analysis criteria, and explore possible alternatives and their probable environmental effects.”It is the responsibility of the Forest Service to provide a “coherent proposal,” but it is not a final proposed action until the results from internal and external scoping are incorporate and the project is further refined. For specific unit information, refer to section 3.2.7 (Unit Information). | 2                |
| <b>NEPA Process</b> | “I am also very concerned about the cumulative impacts of additional logging in this heavily fragmented forest.”  | Direct, indirect and cumulative effects throughout the planning area were analyzed and disclosed in section 4.0 (Environmental Consequences) of the EA for all resource areas, including Vegetation, Fire and Fuels Management, Air Quality and Smoke Management, Soil Productivity, Water Quality, Aquatic Species and Associated Habitat, Wildlife, Botany, Invasive Plant Species, Range, Recreation and Visual Quality, Heritage, and Transportation. Overall, there were no significant impacts to any resource as discussed in the Decision Notice and Finding of No Significant Impacts (DN/FONSI).  | 3                |

| <b>Letter 3</b>                |  |   |                  |
|--------------------------------|--|---|------------------|
| <b>Issue</b>                   | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
| <b>Aquatics &amp; Wildlife</b> | “This logging would have a severely negative impact on the ecosystem including fish & wildlife, and the entire White River Watershed.” | Direct, indirect and cumulative effects throughout the planning area were analyzed and disclosed for Aquatic, Water Quality, and Wildlife Resources in sections 4.6 and 4.7. Overall, there were no significant impacts to Aquatics, Water Quality, or Wildlife as discussed in the Decision Notice and Finding of No Significant Impacts (DN/FONSI). | 4                |

| <b>Letter 5</b>     |  |                                   |                  |
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| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>                   | <b>Comment #</b> |
| <b>Silviculture</b> | “...units along Road 43 yielded serious concerns about the need for this project - we noticed excellent examples of tree diversity, in species & size ...” | Refer to response to comment # 1. | 5                |

| <b>Letter 7</b> |  |  |                  |
|-----------------|--|--|------------------|
| <b>Issue</b>    | <b>Comment</b>   | <b>Response</b>  | <b>Comment #</b> |
| <b>Aquatics</b> | “...it’s crystal clear that the Bear Springs Timber Sale will detrimentally impact the White River Watershed, specifically sections of Frog Creek that we examined today.” | The impacts to the White River Watershed, including Frog Creek, were analyzed and disclosed in sections 4.4 (Soil Productivity), 4.5 (Water Quality), and 4.6 (Aquatic Species and Associated Habitat) of the EA. Refer to Aquatic Design Criteria / Mitigation Measures section 3.2.9.5 for specific design criteria / mitigation measures, which reduce or eliminate potential detrimental effects to the White River Watershed. | 6                |

| <b>Letter 8</b> |                |                 |                  |
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| <b>Issue</b>    | <b>Comment</b> | <b>Response</b> | <b>Comment #</b> |

| <b>Letter 8</b>     |  |   |                  |
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| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
| <b>NEPA Process</b> | “...I feel confident that the cumulative impacts of continued thins would be overwhelmingly negative... Overlay the proposed Categorical Exclusion Pre-commercial thin, the proposed Palomar Pipeline, and other projects, and the idea of cutting these areas is preposterous.” | A list of the projects included in the cumulative effects analysis are included in the project record located at the Barlow Ranger District in Dufur, Oregon. Both pre-commercial thinning and the Palomar Pipeline were included in the list of projects considered. Refer to response to comment # 3 for effects analysis and disclosure. | 7                |

| <b>Letter 10</b>    |   |  |                  |
|---------------------|---|--|------------------|
| <b>Issue</b>        | <b>Comment</b>  | <b>Response</b>  | <b>Comment #</b> |
| <b>NEPA Process</b> | “This project is too large for meaningful public involvement in the decision-making process, as required by NEPA (National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4370d (1994 & Supp. III 1997); 40 C.F.R. § 1500–1508.28 (1998).”   | While the project area covers approximately 41,000 acres, the plantations that would be treated as described in section 3.0 (Alternatives Including the Proposed Action) are limited to less than 1650 acres. The Council on Environmental Quality (CEQ) define the scope of a project (§1508.25) as “Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement.” The definition does not limit the size of the project. Refer to response to comment # 9 for information regarding public involvement in the project. | 8                |
| <b>NEPA Process</b> | “...it is clear that the sheer size of Bear Springs, together with the short time frame for field-checking and comment, and the fact that “final” environmental analysis will not emerge until the public has lost the ability to comment, has made it impossible for us to adequately review this proposal.” | A scoping process to request public input for this project was conducted though a letter mailing that was sent out on March 12, 2010 describing the proposed project. The Recommending Official also met with members of the Bark group and provided additional information on the project in the form of a hard copy map and unit specific information during the analysis period. A 30-day comment period ended on August 20, 2010. Refer to response to comment # 8 for information regarding project size.   | 9                |

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| <b>Issue</b>                                     | <b>Comment</b>  | <b>Response</b>   | <b>Comment #</b>         |
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| <p><b>Silviculture, Aquatics &amp; Roads</b></p> | <p>“In 12 of the visited units (28%), significant differences were observed, including areas of much older forest included inside unit boundaries, differences in age and stand conditions, wetlands not marked on the maps, the presence of a trout-bearing irrigation canal not marked on maps, and the absence of at least three “existing road” segments, as defined in the PA, which would be needed for unit access.”</p> | <p>Any stands outside the approximate average age of 30-60 years would not be entered. Only plantations are proposed to be thinned as part of the Proposed Action. Refer to section 3.2 (Alternative B - Proposed Action). Stand data were gathered by field visits, stand exams, walk throughs and remote sensing. Refer to section 3.2.7 (Unit Information).</p> <p>All perennial wetlands encountered during the implementation of the project (including those not currently mapped) would receive a 60 foot wide “no-touch” buffer and would be subject to all the same design criteria / mitigation measures identified in section 3.2.9 (Design Criteria / Mitigation Measures). For further information regarding riparian buffers refer to section 3.2.3 (Protection Buffers and Riparian Thinning Prescriptions).</p> <p>The Lost Boulder Ditch was not included in the Preliminary Assessment (PA) due to a mapping error and is now included in the Environmental Assessment (EA). Refer to response to comment # 32 for further information regarding the irrigation canal.</p> <p>Road 2610012, 4330016, and 4850018 are part of the National Forest System and as such are available for project use. Refer to section 3.2.5 (Roads). Road 4850018 would only be utilized until it intersects the Lost Boulder Ditch as now indicated on the Bear Springs Road System map in Appendix A.</p> | <p align="center">10</p> |

| <b>Letter 10</b>    |   |  |                  |
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| <b>Issue</b>        | <b>Comment</b>  | <b>Response</b>  | <b>Comment #</b> |
| <b>Silviculture</b> | “We request that this project be withdrawn until all logging units have been field checked by Forest Service personnel and documents redrafted with correct information.”   | Stand data were gathered by field visits, stand exams, walk throughs and remote sensing. Refer to section 3.2.7 (Unit Information). The information gathered during the field visits was used to develop the proposed action. The field notes mentioned above are available in the project record.   | 11               |
| <b>NEPA Process</b> | “We further request that this project be divided into several separate proposals with more manageable geographic or ecological boundaries.”   | All of the proposed treatments fall within the ecological boundary of the White River Tier 2 Key Watershed. Refer to section 4.5 (Water Quality) for more information. Refer to response to comment # 8 for information regarding project size.  | 12               |
| <b>NEPA Process</b> | “Bear Springs first appeared in the SOPA in January, 2010. A scoping process to request public input for this project was announced through a letter mailing on March 12, 2010. Both of these notifications were released when the area was completely under snow and impossible to field check. As well, proposed units were not field marked (and remain unmarked) and neither of these initial notifications were accompanied by useful maps.” | All scoping documentation can be found in the project record. Refer to response to comment # 9 for information regarding public involvement in the project.<br><br>NEPA does not require the proposed units be field marked during the planning process. The field marking occurs during the implementation phase of the project, which is planned for the 2011 and 2012 field seasons for this project. | 13               |
| <b>NEPA Process</b> | “When an EA is issued for the project(s), we request that the Forest Service open an additional 30 day comment period to allow the public to offer our comments on the agency's analysis of the environmental effects and possible mitigation for the proposed action.”   | In order to warrant a new 30 day comment period the Proposed Action would need to include significant changes. Section 36 CFR 215.6 (1)(iv) states: “The time period for the opportunity to comment on environmental assessments shall not be extended.” As no significant changes were made to the project since the first comment period ended no additional comment period would be initiated.        | 14               |

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| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
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| <b>NEPA Process</b> | “We believe Bear Springs PA leans too heavily on the concept of adaptive management, where “exact treatment details may be adjusted at the time of implementation.”  | This portion of the EA has been removed. The proposed action would be implemented as discussed in section 3.2 (Alternative B - Proposed Action) and the DN/FONSI. Any changes to the proposed action would be subject to additional analysis as required by NEPA. | 15               |
| <b>Silviculture</b> | “... in 12 of the 32 units we visited, we noted stand conditions that directly contradict the PA, including healthy conifer diversity, variable tree spacing and structure, and canopy closure that appears much lower than the “current canopy closure” listed in the PA (15).” | Refer to response to comment # 11.  | 16               |

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| <b>Issue</b>               | <b>Comment</b>  | <b>Response</b>   | <b>Comment #</b>         |
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| <p><b>NEPA Process</b></p> | <p>“Project does not comply with the stated Purpose and Need and will not meet Desired Future Conditions... In several of the units we visited, Desired Future Conditions have been met, or the forest is well-aligned with DFC goals already.”</p> | <p>This project meets the stated purpose and need though thinning of the riparian areas to create species diversity and to help maintain survival of late-seral trees by creating a stand that is moving toward a natural, pre-fire exclusion structure and composition with high large wood recruitment potential. Through thinning a greater variability of vertical and horizontal stand structure can be introduced. More sunlight would reach the forest floor to create greater diversity of ground vegetation and to increase the quantity and palatability of forage plants. The plantations were planted with the expectation that they would be thinned at a future date. By decreasing the density of trees, these second-growth plantations would experience an increase in growth and a reduction in disease. In addition to increasing forest health and productivity, this project would also help sustain local and regional economies by providing needed forest products. For more information and analysis regarding how this project meets the stated purpose and need, refer to sections 2.2 (Purpose and Need for Action) and 4.0 (Environmental Consequences).</p> <p>Stand data were gathered by field visits, stand exams, walk throughs and remote sensing. Based on the data obtained through the above methods, it was determined that the stands proposed to treat as part of the Proposed Action do not meet the desired future condition as outlined in section 2.2.10 (Desired Future Condition).</p> | <p align="center">17</p> |



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| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
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| <b>Silviculture</b> | “... because canopy cover is notoriously difficult to estimate without extensive field work, we are concerned that the agency may not have adequate or accurate data to base the project's purpose and need claims on. . . Please provide your methodology for measuring canopy cover in these units.” | Canopy cover was measured through aerial interpretation, and later verified by silviculturists walk through visits. The methodology is summarized in section 4.1 (Vegetation Resources).  | 18               |
| <b>Silviculture</b> | “Please define heavy thinning, and describe how much of this practice will be used on a unit-by-unit basis. We assume that average tree diameter in each unit would increase immediately as a result of this project; however, we could find nothing specific to this effect.”                         | <p>Heavy Thinning is defined as retaining 25 to 50 trees per acre; heavy thinning would be created in a variety of sizes 0.25 acre or greater. Heavy thinning is proposed to benefit species such as deer and elk as well as to enhance diversity. Skips would be created that would vary in size and would comprise up to 10% of each unit. Gaps would be created on up to 10% of each unit and heavy thins would be created on up to 10% of each unit. For more information, refer to section 3.2.1 (Variability in Thinning Treatments) and section 3.2.4. (Matrix).</p> <p>Section 3.2.7 (Unit Information) provides a table that details the thinning activities for each unit. The difference between current and target canopy cover illustrates where the heavy thinning would be occurring in this project area.</p> | 19               |

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| <b>Issue</b>        | <b>Comment</b>  | <b>Response</b>   | <b>Comment #</b> |
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| <b>Silviculture</b> | “Bark is concerned that a number of units appear to contain trees or stands outside the prescribed age class of 30-60 years. We request that any portions of stands outside the 30-60 year old age class be identified in the decisions and excluded from this sale.” | Treatments would only occur in identified plantations. These plantations have an average stand age of 51 years, as determined using the site-specific stand exam data for this project.   | 20               |
| <b>Roads</b>        | “...we are concerned that this project will create new roads and will make decommissioning of existing roads more difficult and costly... We request that any units which would require construction of new roads be dropped from the project.”                       | <p>No new National Forest System Roads are proposed in this project. Any temporary roads would be decommissioned and closed after use. Refer to section 4.0 (Environmental Consequences) where impacts related to temporary road construction were analyzed. For more information, refer to sections 2.3 (Proposed Action) and 3.2.5.1 (System Road Maintenance and Repairs).</p> <p>Road decommissioning is not included as part of this project. All proposed road decommissioning in or adjacent to this planning area will be analyzed in the Road Decommissioning for Habitat Restoration, Increment 3 (Hood River and Barlow Ranger Districts) project. More information on this project is available at <a href="http://www.fs.fed.us/r6/mthood/projects/nepa_project.shtml?project=34050">http://www.fs.fed.us/r6/mthood/projects/nepa_project.shtml?project=34050</a>.</p> | 21               |
| <b>Roads</b>        | “...our field visits indicated that several sections of these “passively or lightly decommissioned” road segments are either non-existent or fully out of service and reopening them equates to new road construction...”   | Approximately 2.75 miles of existing temporary roads would be reused with 0.08 miles of new temporary roads being constructed. All would be decommissioned and closed after use. They are not considered part of the Forest’s system of permanent roads. Refer to section 4.0 (Environmental Consequences) where impacts related to temporary road construction were analyzed. For more information, refer to section 3.2.5.2 (Temporary Roads).  | 22               |

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| <b>Issue</b> | <b>Comment</b>  | <b>Response</b>  | <b>Comment #</b> |
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| <b>Roads</b> | “...We request that any roads identified for decommissioning within the Increment 3 planning process be decommissioned without delay.”  | Determining when roads within the Increment 3 EA are decommissioned is outside the scope of this project. For more information on Road Decommissioning for Habitat Restoration, Increment 3 (Hood River and Barlow Ranger Districts) see <a href="http://www.fs.fed.us/r6/mthood/projects/nepa_project.shtml?project=34050">http://www.fs.fed.us/r6/mthood/projects/nepa_project.shtml?project=34050</a> .   | 23               |
| <b>Roads</b> | “A thorough analysis of the impacts of existing road rehabilitation and temporary road construction in this project should be included in the EA, including specifics about which roads are going to be closed, for how long, and which are likely to be reopened in the future.” | Effects of road maintenance and temporary road construction were analyzed by resource area in section 4.0 (Environmental Consequences). A table outlining temporary road use can be found in section 3.2.5.2 (Temporary Roads). Locations of proposed temporary roads can be found on Map A3 (Bear Spring Road System) in Appendix A. Section 3.2.9 (Design Criteria /Mitigation Measures) also contains specific road related design criteria / mitigation measures which reduce or eliminate the projects potential detrimental effects of the project.                                | 24               |
| <b>Soils</b> | “We are concerned that temporary closure will not adequately address erosion issues and possible sedimentation down slope, especially in units with steep slopes, and request that erosion control measures be installed in units immediately following logging,”                 | The erosion issues associated with temporary closures are addressed in the project design criteria. The project design criteria states: “All skid trails would be rehabilitated immediately after harvest activities. Landings and temporary roads normally would have erosion control measures installed following fuels or reforestation treatments. If those treatments are anticipated to be delayed beyond the current field season, then temporary effective closure of roads would occur to prevent unauthorized use.” For more information, refer to section 3.2.9.7 (Soils #1). | 25               |

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| <b>Issue</b>                | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
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| <b>Aquatics &amp; Soils</b> | “If logging during wet conditions would be allowed, we request more information about how this monitoring would be funded and a detailed monitoring and mitigation plan for the project.”              | Logging during moist conditions would only be considered following a request from the contractor. Many different factors would be considered before the Line Officer would approve such a request, including soil type, monitoring level needed by sale administrator and / or soil scientist, and equipment to be used. Refer to section 3.2.9 (Design Criteria/Mitigation Measures) for Design Criteria and Mitigations related to all operations including extended season logging. Refer to section 3.2.10 (Monitoring) for monitoring plan.  | 26               |
| <b>NEPA Process</b>         | “The cumulative impacts analysis of the Bear Springs Timber Sale is inadequate and fails to meet NEPA’s requirement for high quality scientific analysis that would satisfy the “hard look” standard.” | Each resource specialist determined the past, present, and reasonable foreseeable future actions that would cumulatively impact their resource. Some of these actions included, but are not limited to, Forest Service vegetation treatment activities (i.e. pre-commercial treatments, old harvest units, presently operating sales), private land activities, grazing, highway reconstruction and road maintenance, gas transmission line construction, OHV project, ditch maintenance activities, invasive plant treatments, and restoration projects. Refer to section 4.0 (Environmental Consequences) for an analysis of cumulative effects by resource area. | 27               |

**Letter 10**

| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b>         |
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| <b>Silviculture</b> | <p>“The Bear Springs timber sale, combined with other recent logging projects in the planning area, such as the adjacent Osprey, Diablo, Bear Knoll and Hilynx sales, will contribute to the degradation of at least 5,105 acres. Over 2800 additional acres in the western half of the Bear Springs planning area were “treated” in the last twenty years (Bear Knoll EA 47), and the PA reminds us of the legacy of logging in this watershed since 1950: approximately 20,000 acres have been logged, the majority of that through clearcutting (PA 29-30). With all these actions occurring in the same planning area, we believe the Forest Service is obligated to perform better analysis in the EA to assess the cumulative effects of all these proposals on the larger landscape.”</p> | <p>All of the relevant past vegetation treatments within the planning area were considered in the effects analysis of this project. “In order to understand the contribution of past actions to the cumulative effects of the proposed action this analysis relies on current environmental conditions as a proxy for the impacts of past actions. This is because existing conditions reflect the aggregate impact of all prior human actions and natural events that have affected the environment and might contribute to cumulative effects.” Refer to section 4.0 (Environmental Consequences).</p> <p>“The CEQ regulations, however, do not require agencies to catalogue or exhaustively list and analyze all individual past actions. Simply because information about past actions may be available or obtained with reasonable effort does not mean that it is relevant and necessary to inform decision making. (40 CFR 1508.7)”</p> | <p align="center">28</p> |

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| <b>Issue</b>        | <b>Comment</b>  | <b>Response</b>  | <b>Comment #</b>         |
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| <b>Silviculture</b> | <p>“This patchwork of different ecological values is typical throughout the planning area. Because of this, the agency needs to analyze, on a site-by-site basis, how the forest would change through different prescriptions.”</p> | <p>Stand and landscape level changes were analyzed in the EA. The stand level component is described by this except from the Vegetation Resource analysis (section 4.1): “Eventually trees would be larger, future snags and down wood would be larger, and there would be greater diversity compared to no treatment. Plantations would acquire late-successional characteristics in 30-40 years.” And landscape level component is described by this except from the Vegetation Resource analysis (section 4.1): “Thinning would move 1,288 acres from stem exclusion to understory reinitiation. A smaller proportion of mature stem exclusion stands and multi-story stands would also move to understory reinitiation.”Refer to section 4.0 (Environmental Consequences) for further analysis on how the changes to the forest at the stand level and landscape level would affect each resource.</p> | <p align="center">29</p> |

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| <b>Issue</b>    | <b>Comment</b>  | <b>Response</b>   | <b>Comment #</b> |
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| <b>Grazing</b>  | <p>“While the PA provides a cursory discussion of the cumulative impacts of the action on riparian resources, it does not mention the cumulative effect of livestock grazing on riparian habitats throughout the district, forest or watershed. . . . The combination of fire suppression, past high-grading, and livestock grazing combined to create the overstocked condition of some of the stands in the analysis area.”</p> | <p>Opening of the canopy through thinning would increase forage levels and thus may impact utilization of Rangeland. For Range Specific analysis refer to section 4.10 (Range Resources). This potential change in utilization was considered in the Water Quality and Aquatic species cumulative effects. See sections 4.54 and 4.6.6).</p> <p>Past vegetation management actions and livestock grazing were considered in the Water Quality as well as Aquatic Species and Associated Habitat analyses found in section 4.0 (Environmental Consequences). The cumulative impacts on riparian resources throughout the White River watershed have been disclosed and discussed within the Water Quality as well as Aquatic Species and Associated Habitat write up, in sections 4.5 and 4.6.</p> | 30               |
| <b>Aquatics</b> | <p>“There are numerous ongoing activities in the planning area, such as timber harvest, fishing, camping, road construction, OHV use, grazing, channel stabilization, and culvert repair. However, there is no actual analysis of how the effects of these activities combine to affect the aquatic and riparian environment. NEPA requires the agency to address the impacts”</p>  | <p>A cumulative effects analysis including consideration of pertinent past, present and reasonably foreseeable future projects is included in sections 4.0.1 through 4.0.4, 4.5.4 and 4.6.6 of the EA. This analysis includes data and information from a variety of sources including field data, GIS mapping, computer modeling, field inventories and other planning documents.</p>  | 31               |

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| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
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| <b>Aquatics</b>     | “The aquatic systems themselves are poorly documented. For example, Lost Boulder Ditch, an irrigation canal that runs from the junction of Lost Creek and Boulder Creek within the project area to Smock Prairie in Wasco County is not noted in the PA or the project maps. Trout were observed in the canal on both occasions that we visited the project area.” | The Lost Boulder Ditch was not included in Preliminary Analysis due to a mapping error and is now included in the EA. The Mt. Hood Forest Plan stipulates that “irrigation ditches should not be considered riparian zones...Riparian related values within water transmission corridors should be considered and emphasized; however, water transmission values stipulated in the special use permit should predominate” (FW 706 & 707). | 32               |
| <b>Monitoring</b>   | “The Bear Springs EA must include a comprehensive plan detailing how the project will be monitored for compliance.”  | During implementation Contract/Sale Administrators monitor compliance with the contract, which contains provisions for resource protection as detailed in section 3.2.9 (Design Criteria/Mitigation Measures). After implementation, post harvest reviews would be conducted in addition to monitoring that is conducted at the Forest level. Refer to section 3.2.10 (Monitoring) for full monitoring plan.                              | 33               |
| <b>Silviculture</b> | “Project does not Protect nor Enhance Legacy Features... We encourage the Forest Service not to eliminate trees based merely on the presence of disease but accept the ecological processes that create habitat, downed wood, and the recycling of nutrients back to the soil.”  | By maintaining the healthiest and largest trees, the Forest Service is mitigating the effects of the disease on a stand bases. The attempt is not to eliminate, but to mitigate the effects of disease at the stand level. Refer to section 4.1 (Vegetation Resources) for further information.   | 34               |
| <b>Silviculture</b> | “...snag retention and legacy features should be a significant factor in deciding where to place skips in the units; all decay features be protected by concentrating them in the layout of skips.”  | Several factors are considered when designating locations of skips and the presence of snags is one of those factors. Specific units have been designated for snag retention where snags would be considered during skip location designations. Refer to section 3.2.7 (Unit Information) for further information on skip usage.  | 35               |



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| <b>Issue</b>                       | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
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| <b>Wildlife &amp; Silviculture</b> | <p>“The PA states that “some snags and down logs would be created” (PA 11), but it does not describe the methodology to be used. Given the low success rates associated with certain types of snag creation, a description of the methodology is important information. We suggest that the agency inoculate trees with native fungi to create snags and downed wood instead of simply topping or girdling trees. The area is deficient in habitat and we would encourage the agency to work toward creating new habitat.”</p> | <p>The Proposed Action is not proposing snag or down log creation through topping or girdling, but rather recruiting these structures through the use of skips. “...skips and streamside protection buffers would provide short and mid-term recruitment of snags and down wood similar to the level described for no action... In the long term, trees would be larger compared to no action, and some would eventually die and become large snags. Some would eventually fall naturally to create large coarse woody debris.” For more information, refer to EA section 4.7 (Wildlife Resources).</p> | 36               |
| <b>Aquatics</b>                    | <p><i>Unit 102 and 104</i></p> <p>“Because of these inconsistencies, and the serious environmental impacts associated with new road building and logging along the fish-bearing canal, we request these units be dropped from the sale, in their entirety.”</p>  | <p>The Proposed Action proposes to treat only those sections that can be accessed from system roads. No temporary roads would be constructed in these units. Refer to Map A2, Appendix A maps.</p>  | 37               |
| <b>Silviculture</b>                | <p><i>Unit 70</i></p> <p>“We request that this unit be dropped from the project...our investigation of the portion of the proposed unit which corresponds to a plantation, cut after 1980, reveals field conditions clearly in contradiction to the purpose and need advanced for this project.”</p>   | <p>Stand data including diversity elements were gathered by field visits, stand exams, walk throughs and remote sensing. Refer to section 4.1 (Vegetation Resources) for more information. This unit received an additional field visit to verify unit data after comment was received. The field visit confirmed that the information provided in section 3.2.7 (Unit Information) was accurate. Treatment of the unit is necessary to help limit the potential for Mountain Pine Beetle infestation as Pine densities are too high.</p>   | 38               |

**Letter 10**

| <b>Issue</b>                | <b>Comment</b>   | <b>Response</b>  | <b>Comment #</b>         |
|-----------------------------|--|--|--------------------------|
| <b>Aquatics</b>             | <p><i>Unit 46</i></p> <p>“A previous temporary road exits the unit very nearby and upslope of the wetland, and we are concerned that new logging activity will lead to significant damage... The Decision should explicitly identify how this area will be avoided including any access routes to the unit.”</p>   | <p>This unit received an additional field visit to verify unit data after comment was received. A small perennial spring/wetland and stream is located just outside of the western/southwestern portion of unit 46. As described in the project design criteria (EA Section 3.2.9.5) and the Riparian Reserve Prescription (EA Sections 3.2.2, 3.2.3 and 3.2.3.1), these aquatic features would have a 60 foot wide “no-touch” area where all existing vegetation would be left. In addition, any vegetation treatment within the Riparian Reserve would follow the Riparian prescription and contain pertinent project design criteria. The effects analysis in Sections 4.5.3, 4.5.4 and 4.5.5 display effects to water quality of implementing the thinning project.</p>  | <p align="center">39</p> |
| <b>Aquatics &amp; Soils</b> | <p><i>Unit 51</i></p> <p>“Slopes in the area of the unit upslope from the canal are significant. The forest inside this unit is already healthy and diverse, and meets or exceeds the stated DFC goals... We request that this unit be dropped from the project. At minimum, we request that extra precautions be taken to protect the canal from the deleterious effects of logging and road activities.”</p> | <p>Stand data were gathered by field visits, stand exams, walk throughs and remote sensing. Refer to section 4.1 (Vegetation Resources) Based on the data obtained through the above methods it was determined that the stands proposed to treat as part of the Proposed Action do not meet the desired future condition as outlined in section 2.2.10 (Desired Future Condition). Refer to section 3.2.9 (Design Criteria/Mitigation Measures) for Project Design Criteria that reduce or eliminate potential detrimental effects to the environment. This unit received an additional field visit to verify unit data after comment was received. The field visit confirmed that the information provided in section 3.2.7 (Unit Information) was accurate. There was a high density of Doug fir with little to no understory present. Slopes were found to be within the required 30% for ground based logging.</p> | <p align="center">40</p> |

**Letter 10**

| <b>Issue</b>                | <b>Comment</b>   | <b>Response</b>   | <b>Comment #</b> |
|-----------------------------|--|---|------------------|
| <b>Roads</b>                | <p><i>Unit 50</i></p> <p>“Road 4850021 connects to Old Barlow Road, in contradiction to the mapped route. Abundant illegal OHV traffic regularly occurs on this stretch of Old Barlow Road... Road 4850-021 should not be used to access Unit 50.”</p> | <p>The EA does not propose to use Road 485021 to access any units. Refer to section 3.2.5 (Roads).</p>  | 41               |
| <b>Wildlife &amp; Roads</b> | <p><i>Units 1 and 2</i></p> <p>“We request that these units be dropped from the project. These units are inside spotted owl core areas, and are surrounded by LSR patches on two sides. Road 2610012 is currently decommissioned.”</p>                 | <p>Units 1 and 2 are within a spotted owl core area, but are not within spotted owl suitable or dispersal habitat. Refer to section 4.7.2.1 (Threatened, endangered and proposed species). The Bear Spring Plantation Thinning project was consulted on with the US Fish and Wildlife Service (FWS Reference Number 1-7-06-F-0179) and proposed activities were approved.</p> <p>Road 2610012 is part of the National Forest System and as such is available for project use. Refer to section 3.2.5 (Roads).</p> | 42               |
| <b>Roads</b>                | <p><i>Unit 19</i></p> <p>“The road that would have marked the southern portion of the unit (the road mapped as leading to unit 22) is nonexistent...”</p>  | <p>Road 4330016 is part of the National Forest System and as such is available for project use. Refer to section 3.2.5 (Roads). This road received an additional field visit to verify data after comment was received. The roadbed is still readily definable and there are no signs of active closure. Small trees and brush are growing in the roadbed and will need to be removed for project use as is consistent with section 3.2.5.1 (System Road Maintenance and Repairs).</p>                            | 43               |

| <b>Letter 10</b> |   |  |                  |
|------------------|---|--|------------------|
| <b>Issue</b>     | <b>Comment</b>  | <b>Response</b>  | <b>Comment #</b> |
| <b>Roads</b>     | <p><i>Unit 22</i></p> <p>“We do not feel that the logging of 21 acres warrants the creation of nearly a half mile of new road. We request that this unit be dropped from the proposal.”</p>   | <p>No new roads would be constructed to access unit 22. Road 4330016 would be used to access the unit. Refer to response to comment # 43.</p>  | 44               |
| <b>Soils</b>     | <p><i>Units 24 and 25</i></p> <p>“The southern portion of Units 24 and 25 are both approaching the 30% slope that would warrant sky-line logging... There has already been extensive logging to the southwest of the unit, and we are concerned about the cumulative effects to Clear Creeks should logging extend down this slope. Unit boundaries should be adjusted to eliminate this risk.”</p> | <p>These units received an additional field visit to verify unit data after comments were received. These two proposed units are accurately mapped on soil type 352 (slopes 1 – 30%). As such, these units are accurately analyzed with ground based logging systems.</p>  | 45               |
| <b>Soils</b>     | <p><i>Units 34, 35, and 36</i></p> <p>“These three units are also all on slopes in severe to moderate erosion potential areas, directly above Gate Creek.”</p>  | <p>These units received an additional field visit to verify unit data after comments were received. These three proposed units are accurately mapped on soil type 353 (slopes 0 – 30%) and erosion potential is slight. They do not lie within the riparian area or watershed of Gate Creek. They are all within the Boulder Creek watershed, even though they are geographically closer to a small headwater tributary of Gate Creek (Map A2, Appendix A maps). For more information, refer to section 4.4.2.</p> | 46               |

| <b>Letter 11</b> |                |                 |                  |
|------------------|----------------|-----------------|------------------|
| <b>Issue</b>     | <b>Comment</b> | <b>Response</b> | <b>Comment #</b> |

**Letter 11**

| <b>Issue</b>                   | <b>Comment</b>  | <b>Response</b>   | <b>Comment #</b>         |
|--------------------------------|---|---|--------------------------|
| <b>Wildlife &amp; Aquatics</b> | <p>“Because logging has different effects on understory species composition versus dead wood recruitment (among others) the analysis of the effects of riparian reserves could be enhanced if the FS would separate and the different "late successional characteristics" and analyze the effects of management on each of them. The PA lumps all the late successional characteristics together which masks the significant adverse effects of logging on recruitment of dead wood.”</p> | <p>The analysis recognizes that there would be a short-term loss of potential new small snags and downed wood (&lt;12” Diameter) as thinning would capture some of the short-term mortality. However, in the long term the treatments would help recruit larger snags and downed wood due to the increase in growth rates. These larger snags and downed wood provide the structural variability that is associated with late successional stands. In order to mitigate some of the short-term loss of potential snags / down wood, the Proposed Action would utilize skips where no treatments would take place and allow for more rapid snag / down wood recruitment. The effects of treatments on dead wood were analyzed separately. Refer to section 4.0 (Environmental Consequences) for further information on snags and downed wood and 3.2.1 (Variability in Thinning Treatments) for information on skip usage.</p> | <p align="center">47</p> |

**Letter 11**

| <b>Issue</b>        | <b>Comment</b>   | <b>Response</b>  | <b>Comment #</b> |
|---------------------|--|--|------------------|
| <b>Aquatic</b>      | <p>“In order to meet the intent of the ACS, the EA needs to carefully weight the alleged benefits of logging, such as understory species diversity, against the unavoidable adverse effects of commercial logging such as reduced recruitment of LWD. The analysis of dead wood in particular needs to focus not just on the <u>size</u> of LWD but also the <u>number</u> of pieces and the volume of large wood in treated versus untreated areas. While it may be true to future wood in treated area will be larger, it will also be far less abundant and meeting ACS objectives requires consideration of both size and quantity. Maybe thinning the youngest riparian stands (30-40 y/o) can be justified, but it's harder to justify thinning stands &gt;50 years old in riparian reserves unless the thinning is mitigated by extensive untreated "skips" and compelling off-setting benefits to aquatics.”</p> | <p>In order to maintain short-term recruitment of snags and downed wood, the project proposes no-touch buffers of 30’ for intermittent and 60’ for perennial streams. Riparian areas farther from the stream would provide more wood to the stream by enhancing tree growth rates. Skips would be utilized in both riparian and upland areas to maintain short-term recruitment as well. Refer to section 4.6.5 (Direct and Indirect Effects) of the EA for a complete discussion. A complete analysis of the Aquatic Conservation Strategy, including large woody debris, is included in section 4.5.5 of the EA.</p> | 48               |
| <b>Silviculture</b> | <p>“To mitigate for the effects of logging on dead wood shown above (which has significant implications in terms of snag associated species, riparian/ACS objectives, spotted owl prey, and carbon storage) we urge the FS to incorporate generous untreated skips into the design of this project.”</p>   | <p>Skips would be utilized on up to 10% of each unit based on stand type and condition. Sections 3.2.2 (Riparian Reserves) and 3.2.4 (Matrix) describe the intensity of skips that would be implemented and section 3.2.7 (Unit Information) identifies the specific units where skips would be employed.</p>  | 49               |