

Response to Substantive Comments

The proposed action for the Imp Timber Sale was made available for public comment, (36 CFR 215, 5/13/03). Seven letters and e-mails were received during the 30-day comment period, which ended on December 10, 2003.

The responsible official has considered comments received and has developed the Imp Environmental Assessment in response to those comments.

This appendix responds to the substantive comments. Many of the letters, and e-mails contained similar comments, which will be combined for the purpose of response. Substantive comments are comments that are within the scope of the proposed action, are specific to the proposed action, have a direct relationship to the proposed action and include supporting reasons for the Responsible Official to consider (36 CFR 215.2).

The full text of letters and e-mails are in the analysis file; the following is a summary. The agency responses are in italics and highlighted. In the italicized responses, page numbers refer to the Imp Environmental Assessment unless otherwise specified.

A letter containing the following comments was received from Oregon Natural Resources Council (ONRC).

1. What authority allows for the preliminary assessment? *The comment and appeal rule is available on the following web site - <http://www.fs.fed.us/emc/applit/includes/finalappregs03.pdf>. The pertinent section contains the following: **§215.5 Legal notice of proposed actions.** (a) Responsible Official. The Responsible Official shall: (1) Provide notice of the opportunity to comment on a proposed action implementing the land and resource management plan. (2) Determine the most effective timing for publishing the legal notice of the proposed action and opportunity to comment.*

2. Older Forest Fragments

While USFS is correct in stating that old growth forest near the edge of openings does not function as interior forest habitat, which should not provide the justification to clearcut old growth stands in the matrix. As you analyze in the PA, only 11% of the watershed is functioning as interior older forest (PA, page 31). This demonstrates to us that riparian and late-successional reserves are not functioning to provide habitat for interior forest dependent species. Until sufficient interior forest habitat develops in the reserves, we should retain all old forests that provide any opportunities for refugia for late-successional forests species. There is only 11% interior older forest not the required minimum of 15%. *In the EA, the effects to fragmentation and older forest are discussed (p. 31). The condition of the landscape is not a major justification for harvest but is one means to prioritize harvest opportunities (p. 7). The 15% standard from the Northwest Forest Plan relates to late-successional forest and not interior habitat. The analysis on page 33 indicates the watershed would contain 36.9% late-successional forest after implementation of Imp and all other foreseeable projects.*

3. Logging does not mimic disturbance

It appears that large patch size is at the heart of the ecological justification for this project. It is true that in the past, there were much larger patches of forest that were the same age. But USFS

cannot use the same tool that created the problem (clearcutting small patches of forest) to solve the problem. Enlarging patch size of early successional forests without replicating other landscape features that mimic disturbance ecology is too simplistic. It will not restore landscape character that is similar to that which existed in the historic range of variability. Clearcutting the last few stands of old forest do not approximate stand replacing fire disturbances responsible in the past for creating large patches of forest with the same birthday. *The purpose and need for the project is on page 4. The increasing of patch size is one result or outcome of the proposed action, but is not a justification or part of the purpose and need.*

Dwarf mistletoe and Phellinus are listed as agents of declining health in these stands. Yet these are agents of disturbance that introduce horizontal diversity to the landscape. In addition, these agents are nearly impossible to control. *The health of stands is one means to prioritize harvest opportunities (p. 4). The EA does not make a claim that diseases would be controlled or eliminated.*

- Mistletoe is not a problem for a forest. Mistletoe does not typically kill trees. That would not be a good strategy for an obligate parasite like mistletoe. Mistletoe does reduce the growth rate of the host trees, but that is not a serious problem. *Dwarf mistletoe spreads to additional host trees and intensifies within the hosts over time. As the proportion of infected branches increases, main tree growth steadily declines. When growth ceases death follows. Heavy infections of dwarf mistletoe can indeed cause mortality of the host tree directly and also indirectly by increasing the host's susceptibility to secondary agents such as bark beetles (Chapter 9, "Host-Parasite Physiology" in the book, *Dwarf Mistletoes: Biology, Pathology, and Systematics* by F. G. Hawksworth and D. Weins. 1996. Agricultural Handbook 709, USDA Forest Service, Washington, D.C. 410 pp). For an obligate parasite to kill its host is not unusual, particularly for long-lived hosts such as trees. With regard to biological strategy, an obligate parasite only needs its host to survive long enough for the parasite to have infected another host.*
- We suggest that eradication efforts be reconsidered. There is an urgent need for the Forest Service to reevaluate its current strategy of waging a war against dwarf mistletoe. Dwarf mistletoe has ecosystem value. *The Forest Service recognizes that dwarf mistletoe has beneficial attributes. The project does not propose to eradicate dwarf mistletoe. It will use appropriate silvicultural techniques to reduce the incidence and severity of dwarf mistletoe in the stand. The regeneration harvest by shelterwood includes removal of the most heavily infected trees. Where leave trees are infected, non-host species may be planted in their vicinity.*
- The damaging effects of mistletoe can best be minimized by recreating forest stands similar to the original, presettlement forests. *This concept may apply to southwestern pine forests, but not to western hemlock west of the Cascade crest. Presettlement stands of western hemlock were often heavily infected with dwarf mistletoe. E.T. Allen (1902. *The Western Hemlock*. USDA Bureau of Forestry Bulletin 33, 55 pages), reported that dwarf mistletoe on western hemlock was "widespread throughout the hemlock region," and "rendered the hemlock practically worthless" in some coastal districts and cool mountain valleys.*
- Laminated root rot has value in the ecosystem and is difficult to eradicate. *The Forest Service recognizes the beneficial attributes of laminated root rot. The project does not propose to eradicate the disease. Appropriate silviculture, including host removal and*

species manipulation, will decrease the impact of laminated root rot on timber production.

While USFS suggests that replanted stands will be “subsequently thinned to a spacing wide enough to maintain healthy and vigorous growth”, (PA, page 34) it is unlikely that USFS will be adequately funded to keep up with its PCT needs (in the EA, we suggest USFS does a full accounting of all the young managed stands in the Upper Clackamas to demonstrate that every young stand across all land allocations is adequately thinned to meet management objectives). Besides, in the matrix, stands are usually managed to occupy sites fully. While this may maximize fiber production, it does not replicate natural forest succession. *The purpose and need for the project is on page 4. Replicating natural forest succession is not part of the purpose and need. Precommercial thinning when the stand is between 10 and 20 years old is one method that could be used to meet management objectives in the future. Commercial thinning at an early age (between 25 and 35 years) could also be used as an alternative to precommercial thinning.*

In conclusion, USFS should not pretend this project is about restoring the landscape to the historic range of variability or mimicking natural disturbance in any way unless USFS is fully committed to use the best available science to restore the landscape. Using some portions of disturbance ecology to justify logging and ignoring the rest serves only to get logs off public lands, not restore diversity and complexity to a landscape simplified and degraded by industrial logging. *The purpose and need for the project is on page 4. Restoring the landscape to the historic range of variability or mimicking natural disturbance is not part of the purpose and need.*

4. Road construction

While the USFS is quick to point out that majority of the “temporary” road will be constructed over a skid trail, the PA also notes that this skid trail was recently scarified. Why did USFS spend any resources to scarify this skid trail if you knew that it would be used for the Imp project? *Scarification and revegetation is one means of storing a road or skid trail until it is needed again. The skid trail was scarified before the Imp Timber Sale was conceived. Using an existing skid trail alignment for a road makes sense in some cases and results in less overall disturbance compared to building a road elsewhere.*

USFS downplays the controversy about temporary roads by saying that it is a question of semantics (PA, page 65). This is hardly the case. USFS can call these roads whatever you want as long as you analyze the effects adequately. *The term “temporary road” is commonly used by the Forest Service to describe roads that are built by a timber purchaser, used only for logging operations and are decommissioned when the sale is complete. This is to distinguish them from permanent system roads that are intended to be retained as a long-term part of the Forest’s transportation network. The EA does not claim that the effects of the road go away immediately, in fact temporary roads are likely to be re-used again in the future (p. 68). The EA describes the effects of constructing these roads.*

Research results, published in *Restoration Ecology*, shows there is nothing temporary about temporary roads, and that ripping out a road is NOT equal to never building a road to begin with. *The EA does not claim that the effects of the road go away immediately or that ripping would be equal to never building the road, in fact temporary roads are likely to be re-used again in the future (p. 53,68). The quoted research deals with soil types that are considerably different from the soil types in the Imp area.*

5. Snags and CWD

USFS must conduct detailed legacy inventories of snags and coarse woody debris on a stand level. All large valuable snags and CWD must be retained and additional legacy features created until sufficient numbers and distributions of these essential components of the forest ecosystem are on the landscape. Managing snags by biological potential indexes should not be used as it does not promote viable population levels as required by NFMA. *The EA contains a discussion of effects to snags and snag dependent species (p. 42-47). Landscape wide surveys for snags and coarse wood have been conducted and are summarized by stand type and plant association zone in the Upper Clackamas Watershed Analysis (p. 113-114). Some scientists have questioned the concept of biological potential. The EA discloses how the project measures up against new science and how it measures up against the traditional methods of biological potential contained in Forest Plan Standards. In addition to assessing the value of snags, the new science (DecAid) describes the importance of live hollow and dead topped trees as well as the concept of managing for species at the landscape scale.*

While the USFS should be commended for attempting to incorporate current science into this planning process, it is clear that you are not familiar with the DecAid recommendations and background science. The DecAid paper is highly critical of biological potential thresholds and considers many of the previously developed guidelines insufficient to provide all the values of forest legacy features. Yet USFS justifies the tremendous loss of snags due to operational concerns because there will be retained and created snags sufficient to provide for biological potential of cavity nesters. Even though the Northwest Forest Plan ROD clearly states that its snag guidelines should be used until standards are developed to better accomplish the listed objectives (C-40), and clearly the DecAid recommendations are these standards, the USFS uses the NFP recommendations in their desired future condition section (PA, pg.5). *Although it is true that the Northwest Forest Plan Record of Decision states that its snag guidelines should be used until standards are developed to better accomplish the listed objectives on page C-40, DecAid in itself is clearly not meant to be the new standard. It states within the DecAid Advisor website that DecAid is meant to be a "...planning tool intended to help advise and guide managers as they conserve and manage snags, partially dead trees, and down wood for biodiversity." DecAid is not a standard and guideline and does not contain direction to manage for snags and down wood at a particular level. Rather it is a planning tool to help managers make informed choices.*

The agency must avoid any reduction of existing or future large snags and logs (including as part of the Imp project) until the applicable management plans are rewritten to update the snag retention standards. Similarly, the agency here should save the snags by avoiding the activity in the hazard zone around the snags. *The EA contains a discussion of the consideration of this alternative (p. 12). There is no way of knowing how many snags may have to be felled for safety reasons. Avoiding an area around each snag would be similar to the no-action alternative. Green tree retention patches (10% of acreage) would provide a safe place to retain snags as well as live hollow and dead topped trees.*

6. Spotted Owls

ONRC disagrees that the proposed action "will not likely jeopardize the continued existence of the spotted owl or result in the destruction or adverse modification of spotted owl critical habitat" (PA, page 15). After all, every unit is NRF habitat in an area with a high potential for

species occurrence (PA, page 34) and the proposed action will destroy much of the value these stands have for owls, including degrading habitat in CHU OR-11. The PA clearly states that “risk to individuals would be high under all action alternatives and low for the no-action alternative” (PA, page 36). While USFS is quick to state that there would be no risk to populations, USFS does not and cannot make the case that this project will assist in the recovery of spotted owls or prevent the extirpation of owls. This is the purpose of critical habitat. The evaluation of impacts to Critical Habitat Unit OR 11 has not been conducted. No analysis of the condition, amount, and location of functional spotted owl habitat in the Late-Successional Reserve or Riparian Reserves adjacent to the planning area was provided in the Imp PA or supporting documentation. There is no discussion of impacts from additional fragmentation of matrix lands on the ability of the CHU to function as critical habitat. In addition, there is no discussion of whether CHU OR 11 is meeting its specific role within the network of CHUs. *In the EA, the effects to northern spotted owl critical habitat are discussed (p. 37-39). This action is consistent with the Northwest Forest Plan; the agency’s contribution toward northern spotted owl recovery. It is consistent with the endangered species act and consultation with the U.S. Fish and Wildlife Service has been completed and they concur that the project would not jeopardize the continued existence of the spotted owl or result in the destruction or adverse modification of spotted owl critical habitat.*

7. Cumulative effects

In the Hydrology section’s cumulative effects analysis, USFS overstates possible benefits of some developing projects while minimizing or ignoring the impacts of existing problems. The USFS fails to discuss that fish passage is a current problem between the Lower and Upper Clackamas due to dams, or disclose how many miles of stream are inaccessible to fish due to culverts, or delineate deficiencies in stream structure. Instead, USFS states that beneficial effects of dam relicensing on the Upper Clackamas “could be: improved fish passage at the project dams for both upstream migrating adults and downstream migrating salmonids, culvert improvements for fish passage, an in stream habitat improvement projects.” While these benefits are speculative, the impacts of the current hydroelectric and flood control infrastructure on the Clackamas is real. *The presence of dams is disclosed many times in the discussion of fish stocks (EA p. 19-21). The Imp project would not affect fish passage and therefore would not contribute cumulatively to downstream fish passage problems.*

The projections of the Northwest Forest Plan PSQ as codified in the Upper Clackamas Watershed Analysis were based on wild speculation. Land managers had no idea how the mitigation measures to logging old growth, (Survey and Manage and Aquatic Conservation Strategy) would affect the logging of old forests. Both the 1.1 billion board feet per year figure for the Northwest Forest Plan area and the 200 acres of old forest a year figure for the Upper Clackamas were developed when the Forest Service and BLM were refusing to implement the Survey and Manage and ACS components of the plan. The back-of-the-envelope estimates produced before DecAid standards were developed, before additional fish were listed, and before current scientific knowledge was available. The Watershed Analysis isn’t outdated because “harvesting has occurred or been planned since then” (PA page 23). The WA is outdated because it makes recommendations that do not rely on our current understandings of not only science and law, but changing economic and social values. *Management direction is not derived from the watershed analysis but from the Mt. Hood Forest plan as amended. The statement on page 26 of the EA is intended to answer a concern expressed by certain individuals, apparently ONRC does not share that concern. At this time, Survey and Manage, Aquatic Conservation Strategy, and DecAid do not represent significant new information that would affect the agencies*

ability to achieve the 200 acres per year of regeneration harvest in the Upper Clackamas. While a Watershed Analysis is intended to be a living document that is updated as the need arises, at this time there is no need for a reevaluation of the base data or the recommendations contained in the Upper Clackamas Watershed Analysis.

USFS should look at what the authors of the Northwest Forest Plan are saying about the 1.1 billion PSQ figure. Norm Johnson, Jack Ward Thomas, Jerry Franklin and Bruce Marcot have spoken out about logging old forests. *Some scientists do advocate for the elimination of old-growth harvest. The Northwest Forest Plan recognized the nature of the compromise that was made between preservation and meeting social needs (USDA, USDI 1994b, p. 2).*

Another measure of the relative risk of cumulative watershed impacts is the **Aggregate Recovery Percentage (ARP)**. This method estimates the effects of forest cutting on peak flows in the Cascades. There are many problems with ARP modeling. The use of Aggregated Recovery Percentage only measures the potential for damage from a rain-on-snow event, even though many factors contribute to watershed impacts, not just rain-on-snow events. The Forest Service must come to terms with the obvious conclusions that follow from the facts about hydrological health in the Imp planning area. The Imp area contains many significantly compromised subwatersheds. Cutting timber, reconstructing roads, building landings, driving thousands of log trucks over the road system and other logging-related activities will not help matters, they will exacerbate the already poor condition of the watershed. An EIS is needed to adequately gauge the potential for significant impacts. *The ARP analysis (p. 24) is not the only analysis of cumulative effects. In the EA, cumulative effects are discussed for many resources that relate to watersheds such as fisheries (p. 21-26), wildlife (p. 37-50), soils (p. 51-54) and fragmentation (p. 33). The ARP analysis has been tailored to site-specific conditions including the stability of local geological landforms, sensitivity of local fish habitats, local growth rates of trees, presence of permanent openings, actual age of stands and existing and foreseeable future projects (p. 24-26). An EIS would not identify any additional impacts that are not already discussed in the Imp EA.*

8. Sustainable Rural Economy

One of the stated Purpose and Need objectives for this project is “to provide forest products consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies now and in the future” (page 4). First of all, the timber industry is in a very different position ten years later. Many fewer mills rely on old trees for their supply. Besides, there are many other ways to provide wood fiber other than from clearcutting old forest. In fact, plantation thinning has much more promise of providing a certain supply of jobs and board feet than old growth logging because nearly everyone agrees that it needs to be done. USFS should not justify a controversial logging program with pointing to the jobs that it seeks to create because there are opportunity costs to not investing resources in a needed and non-controversial active management program. The Imp project has a chance of breaking even for the agency, but it is highly unlikely that the actual costs of planning and implementing this project will be more than the bid value. If the agency is willing to lose money on their timber sale program, they should implement projects through contracting that focus on the biggest needs of the forests—controlling invasive weeds, upgrading culverts, thinning young managed stands, and enhancing fish habitat. USFS must share the blame with rural communities experiencing economic downturn (PA, page 66) by not implementing an active management program that complies with

the law or is in the best interest of land owned by all Americans. *Thinning of second-growth stands is a high priority and is being pursued in a separate analysis. The EA identifies two planned thinning sales in this area (p. 25). The Northwest Forest Plan anticipated that some older forest stands would need to be harvested to meet the Probable Sale Quantity (PSQ). The trees removed by the Imp Timber Sale would average approximately 20 inches in diameter, which can be processed by most sawmills. In general, regeneration timber sales have greater value and result in a greater return compared to thinning sales. The concept of shifting timber sale preparation funds to restoration projects is both illegal and outside the scope of this EA.*

9. Mitigation does not make up for degradation

Already, invasive weeds are found in the project area and in some cases, on the edge of units. With increased light infiltration into the stands and soil disturbance, it is certain that these populations will rise and spread throughout the clearcuts. Despite disclosing the problems with invasive weeds and describing Executive Order 13112, USFS believes the design criteria will effectively prevent an outbreak. Instead of planning projects that increase the spread of invasive weeds, USFS should get serious about controlling populations of noxious invaders. On top of increasing the spread of existing populations of weeds, USFS is considering use of non-natives for erosion control (PA, 13). USFS must not use non-natives for erosion control. *Design criteria would avoid the spread or introduction of noxious weeds. Native plant species (primarily grasses) would be used where available. Where native seed is not available, non-invasive species would be used where needed to reduce erosion.*

USFS states that “if implementation monitoring reveals damage in excess of 15 percent, compaction can be mitigated through subsoiling of skidtrails and landings. Restoration by subsoiling and revegetation would initiate recovery of productivity, but **is unlikely to return the soil to its original condition and productivity**” (PA, page 50, emphasis added). The 15% standard is not to be exceeded. USFS can not implement a project that exceeds the standard and then mitigate for the damage. As USFS notes, soil damage is not easily undone, and therefore the standard must not be exceeded. This should include not only the logging and yarding equipment, but the grapple pile equipment as well. *The Forest Plan (p. Four-50) specifically provides for rehabilitation where projects exceed 15%. For this project, soil compaction (page 53) is predicted to be below the 15% level.*

10. Visual Quality Objectives

Unit 7 can be seen from Hwy. 46. Already, USFS suggests that the viewshed from Hwy. 46 is already out of compliance with VQOs (PA, page 52). USFS makes no justification why logging can continue to degrade VQOs. Then USFS states that Imp units will be similar to previous cuts, which “do not look like clearcuts but more like open park like stands” (PA, page 53). While park like stands may be the desired forest type in other areas like central Oregon, park like stands are not naturally occurring in most of western Oregon. *The EA on page 56 indicates that the current viewshed from road 46 meets the cumulative VQO of middle-ground partial retention. Unit 7 will meet the VQO of partial retention because of vegetative screening, the number of green trees retained, the distance and the viewer angle. The units were described as looking ‘park like’ to give the reader an idea of how they would appear.*

11. Fish

To state that there are no threatened or candidate fish species present within the project area is disingenuous. The maps on pages 11 and 12 clearly have the Clackamas River labeled on them.

It would have been difficult to produce a map of the “project area” that included the units and haul routes without including the Clackamas River. All units are within a couple of upstream miles of a river that contains stocks of listed fish. As you note in the PA, the Big Bottom segment of river contains some of the most structurally functional and most productive spawning and rearing habitat for Upper Willamette River Spring Chinook and Lower Columbia Coho anywhere in the Upper Clackamas. This project has a “May affect, Not likely to adversely affect” standard for both of these fish. Given the poor quality of riparian reserves in the Imp project area, we suggest that you review the Rothstein decision and modify this project to comply with that decision, which demonstrated that USFS has an obligation to implement projects that pose no risk to runs of ESA listed fish. *The analysis fully discloses the impacts to downstream fish (p. 21-24). There are no fish in the streams adjacent to the harvest units. No modifications are necessary to comply with the Endangered Species Act.*

12. Management indicator species

The PA is highly deficient in its analysis of impacts to pileated woodpeckers and pine marten. It is untrue that NFP removed land allocations for these species and because NFP reserves would meet the habitat needs for these species as stated on page 46 of the PA. USFS seems to have no problem including the C1 Timber Emphasis allocation in the desired future condition table at the beginning of the PA, even though the NFP land allocations were developed after the Mt. Hood Forest Plan. USFS has the obligation to use whichever policy or law is more restrictive when looking at overlapping authorities. Look at our discussion about snags for some of our concerns with impacts this project will have to woodpeckers. We see absolutely no mention of pine marten until the USFS states that cumulative effects to pine marten “have already been evaluated in the Older Forest analysis in the Fragmentation section. There is no mention of pine marten in this section. *The NFP on page C-45 specifies that Mt. Hood Forest Plan allocations for pine marten and pileated woodpeckers were eliminated unless shown in the watershed analysis to be needed. The Upper Clackamas Watershed analysis found that they were not needed (p. 77).*

A letter containing the following comments was received from BARK.

I. The Imp Timber Sale Will Not Meet The Stated Purpose And Need Of The Project

A. The Forest Service fails to support its contention that the proposed project is necessary for local economies, or will contribute to the health of the **local economy**. The PA is incomplete because it does not provide an adequate economic analysis of the proposed project. The PA also lacks analysis that shows that the sale meets social and economic needs of the local and regional economy. *One of the objectives of the Northwest Forest Plan is to “...maintain a sustainable supply of timber and other forest products that will help maintain the stability of local and regional economies on a predictable and long- term basis.” (USDA, USDI 1994b, p. A-1) The Imp project contributes timber and forest products consistent with that goal.* Notably, the price for timber has dropped dramatically. In spite of the increased demand due to home building, there is a **glut of timber** on the market; timber sales that are currently being auctioned by the Mt. Hood National Forest are selling below estimated valuation. *The EA contains a discussion of timber markets (p. 66). The bidding results of the timber sales sold since September of 2001 indicates substantial competition for forest products in the region as well as a high demand for forest products from the Mt. Hood National Forest.*

B. The timber sale does not capture the highest present net value of the timber resource. In making the site-specific decision to implement the Imp Timber Sale, the Forest Service failed to incorporate information about the **economic value of unlogged forests**. These include the economic benefits associated with recreation and other values. *The EA tiers to the Mt. Hood Forest Plan and Northwest Forest Plan Final Environmental Impact Statements, which have analyses of recreation and other values (USDA 1990a, p. IV-122)(USDA, USDI 1994a, p.3&4-278-317). These documents also represent a synthesis of the agency's public involvement and collaborative processes, which are the primary tools for Forest-wide maximization of net public benefits.*

C. The Imp timber sale will not achieve desired future conditions. The Imp timber sale PA fails to mention desired future conditions and priorities in the Northwest Forest Plan (NWFP) and Mt. Hood Land and Resources Management Plan (MHLRMP) that call for preserving plant and animal **diversity** as opposed to creating plantation forests. *The EA discusses desired future conditions for diversity (p.6-8). Diversity standards for matrix areas relate to snags, down woody debris and green tree retention and providing a mix of habitats across the landscape.*

The PA refers to the area as classified as C1 timber emphasis, with the “primary goal” being timber harvest. The NWFP takes precedence over any less restrictive management directives, and since the NWFP’s **Matrix** designation is more restrictive than the MHLRMP’s C1 designation, C1 is no longer an appropriate management designation. The NWFP’s Matrix designation does allow commercial timber harvest, but another goal of Matrix is to “perform an important role in maintaining biodiversity.” *In the EA, the objectives of matrix and timber emphasis allocations are discussed (p. 4-8). The Northwest Forest Plan standards and guidelines apply where they are more restrictive than the Mt. Hood Forest Plan. Matrix does not supplant the C1 Timber Emphasis allocation; it adds certain standards and guidelines. The C1 Timber Emphasis contains some standards and guidelines that are more restrictive than Matrix standards and guidelines such as those for snag retention. The project is consistent with the standards and guidelines for lands in the matrix.*

The PA’s bias against old growth is shown clearly in the Purpose and Need Statement. **Slow growth and tree mortality** are natural in trees that are two hundred years old, and both traits are main characteristics of old growth forests. The implication in the description is this diseased, dead and dying forest is a condition that needs to be remedied. *The health of stands is one means to prioritize harvest opportunities (p. 7). See response to ONRC #3 above.*

II. The Imp PA Does Not Adequately Consider The Impacts Of This Project

A. The PA fails to adequately consider the **cumulative** environmental impacts of the proposed project, and past, present, and future Forest Service and private activities, including timber sales, livestock grazing, herbicide use, mining projects, off-road vehicle use, and other management activities. *In the EA, cumulative effects are addressed for each resource and the analysis does consider all of the applicable impact activities (p. 18-72).* The PA does not give a comprehensive list of other projects; only Tarzan and Upper Clackamas Thinning are cited. *Each analysis uses a land base that is relevant to that resource. The sales mentioned are the only ones in the Pot and Big Bottom subwatersheds. However all of the past present and foreseeable future projects in the entire Upper Clackamas watershed are included in the analysis of hydrology on page 24. While listing timber sales by name is not necessary to conduct a*

cumulative effects analysis, in this case they are listed by name on page 25. Timber sales are also listed in the fragmentation section on page 33 and in the Wildlife section on page 38.

1. Cumulative Direct and Indirect Impacts on Watershed Integrity.

The PA does nothing to indicate how logging the Imp planning area – in addition to logging other timber projects in the area – will not degrade water quality. *Pages 15-29 discuss this topic.*

The PA does not provide a scientific current **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. What information that was provided in the Biological Assessment is from 1997, and therefore is not a reflection of current conditions. *The EA does not project any effects to these stream conditions (p. 18-29), therefore project level monitoring of these benchmarks has not been proposed.*

2. Cumulative, direct and indirect impacts on forest **fragmentation**, and dispersal of late successional species. The PA omits the known benefits of old growth forest fragments, and thereby omits adequate analysis of environmental impact of eliminating these valuable forest fragments on late Successional species. Old growth forests play a vital role in our region's biodiversity—including but not limited to carbon sequestration, clean drinking water, healthy fish runs and recreation. The NWFP acknowledges old forests' value as a legacy of biodiversity, and calls for their protection; particularly isolated patches of old growth in the Matrix like those in the proposed Imp Timber Sale. *See response to ONRC comment #2.*

I have previously submitted a copy of a **letter** drafted by Dave Perry and other scientists to the Regional Interagency Executive Committee, backing the protection of all late-seral and old growth forests. Along with their letter is a bibliography of citations supporting their position. I urge you to review this document and include its finding in the PA of Imp. The Preliminary Imp EA needs to address the new scientific evidence. Not only do the scientists support this position, but recent polls have shown that 75% of the public back an end to old-growth logging. *The letter contains no new information and the EA contains a discussion of the opinions of scientists (p. 73-75).*

Where is it a requirement that the USFS must log old growth? The USFS could easily focus its management on existing even age **plantations** instead. *See response to ONRC comment #8.*

3. The EA does not have adequate **survey data** to support its findings. The Mt. Hood National Forest has failed to adequately survey for sensitive and listed species and therefore lacks the necessary information to support the proposed action alternatives in the Imp Timber Sale. Before making a final decision, surveys for sensitive, listed, proposed for listing/rare, and management indicator species that have been reported or are likely to utilize the project area should be conducted if reliable population estimates are not available. *All required surveys have been conducted (p. 42 & 58). Surveys for the purpose of determining species ranges and making population estimates are conducted by other agencies including U.S Fish and Wildlife Service, Oregon Department of Fish and Wildlife, and Regional Ecosystem Office.*

B. The Forest Service improperly relies on **mitigation** measures to conclude that there will be no significant impacts of the Imp sale. The foundation of this overly optimistic assessment of impacts is Best Management Practices (BMPs), which are automatically assumed to negate

negative impacts. BMPs should not automatically facilitate approval of projects that degrade habitat. The aim of BMPs is that they can “control or prevent,” adverse impacts. However, the only sure method of preventing adverse impacts is by not conducting activities that cause harm and destruction. *The project has been designed to minimize environmental effects. The EA does not presume that BMPs will negate all negative impacts (p. 27-29, 53). The EA discloses the impacts throughout.*

1. The EA does not contain an adequate discussion of mitigation measures. While the mitigation measures discussed in the Imp PA are more substantial than we have observed in previous EAs on the Forest, we caution the Forest Service that it must fully implement the measures, and that **funding** must be made available to fully implement the proposed measures.
2. Mitigation measures do not obviate the need to prepare an EIS. Where an environmental assessment **relies on mitigation measures** to reach a finding of no significant impact, that mitigation must be assured to occur and must completely compensate for any possible adverse environmental impacts. *The action alternatives incorporate design criteria and BMPs as part of the proposal (p. 15-17). The proposed action was designed with BMPs and Standards and Guidelines from the Forest Plan, as amended, which are designed to reduce or minimize effects to resources. The analysis does not indicate any significant impacts that would require further mitigation. The Imp proposal does not rely on mitigation measures to reach a finding of no significant impact.*
3. The EA must include a detailed **monitoring** and mitigation plan. *The EA addresses monitoring on page 17.*

III. The PA inadequately analyzes the impacts to **aquatic systems**. The PA completely disassociates incremental impacts with the collective or long-term effects, and states that the action alternatives are “not likely to cause a trend to federal listing or loss of viability.” PA, 17. Repeated destruction of habitat over time has caused listings the first place. The analysis of existing conditions of the creeks and rivers in the planning area is not based on high quality science, fails to adequately describe the current conditions of these aquatic systems, and does not accurately represent the impacts on these systems from the proposed action. The Clean Water Act does not permit “short term” degradations of water quality, and that any project that proposes such degradations is unlawful. We note that the USFS also has an obligation to physically survey the reaches of the creeks, streams, and tributaries in the planning area in order to determine the number of pools, riffles, down woody debris, and other features that are present in the waterbodies in the planning area. *The EA includes an analysis of the effects to aquatic resources (p. 18-29). No significant effects have been identified either individually or cumulatively.*

A. Sedimentation Will Increase As A Result Of The Imp Timber Sale

1. Direct impacts from **sediment** on the planning area - The PA and supporting documents indicate that the planning area is experiencing significant sedimentation from anthropogenic sources. The fact that the area is already degraded as a result of sediment input and that the Imp Timber Sale will exacerbate that condition precludes additional management in the Imp planning area. *The chance that measurable amounts of fine sediment would enter any stream within the project area as a direct result of road construction or logging activity is negligible (p. 25).*
2. **Cumulative impacts** from sediment on the planning area - There are numerous ongoing activities in the planning area, such as timber harvest, fishing, camping, road construction,

channel stabilization, and culvert repair. The Forest Service should have included in its cumulative impacts analysis a discussion of how ongoing and past logging projects, hydropower development, and the proposed project all combine to affect the planning area. *The EA does include all past, present and reasonably foreseeable actions (p. 24-26).*

3. The Imp EA is inadequate because it does not include a **monitoring** requirement or a mechanism to deal with water quality violations. The PA does not state whether water quality impacts will be monitored to ensure that water quality standards are met, when this evaluation will occur, or what the USFS intends to do if the effects on aquatic systems are greater than anticipated. *The EA addresses monitoring on page 17.*

4. The Imp PA is flawed because it does not include adequate **mitigation** measures for aquatic systems. Although the PA includes a number of mitigation measures for the Imp Timber Sale, it does not indicate whether these measures are required in the timber project contract, how it intends to ensure compliance with the measures if they are in fact required, or whether these measures will be effective. *See response to BARK comment II B1 above.*

5. The reliance on **BMPs** as sufficient mitigation for sediment impacts to aquatic systems is flawed. While the use of BMPs is to be encouraged in a timber project, we note that the use of these measures is not sufficient to ensure compliance with the Clean Water Act (CWA). *See response to BARK comment II B2 above.*

6. The PA is flawed because it requires the construction of unnecessary roads that will degrade water quality. The PA calls for building 3,900 miles of “**temporary**” roads. The fact that the road has been recently scarified underscores the waste of public funds. The impacts of roads include increased sediment input, fragmentation of habitat, stream crossings, introduction of exotics, increased peak flow, extension of drainage density, increased interaction between humans and wildlife, and soil productivity loss, to name a few effects. While the action alternatives would also close roads after use, the Mt. Hood National Forest has a poor record of successfully closing roads and restoring them to a hydrologically stable condition. The USFS relies on closing the road as mitigation for impairment that the Imp project will cause. Road closure in the past has often been ineffective. Despite the use of the term, “Temporary” to describe the roads proposed for the Proposed Action, these roads are not “temporary.” These roads contribute to cumulative impacts, as impacting the area from the time they are built until they are decommissioned, assuming it would be done successfully. It takes 20 years to successfully revegetate a road. The PA does not analyze the cumulative effect of this road on the surrounding area. The EA also does not offer specific road density information for the entire Imp planning area. *See response to ONRC comment #4. Open road density information is in the wildlife section on pages 47-48. The approximate lengths of temporary road would be: 1400 feet of reconstruction of an old temporary road, 1500 feet of reconstruction on the alignment of an existing skid trail and 500 feet of new temporary road construction.*

B. HYDROLOGY & AQUATIC CONSERVATION STRATEGY

The **ARP** Model is Faulty. Aggregated Recovery Percentage only measures the potential for damage from a rain-on-snow event, even though many factors contribute to watershed impacts. The ARP model is also inadequate because it does not consider the design of the transportation system. The greatest impact from peak flows and rain-on-snow events comes when water interfaces with a poorly designed road system. But even though ARP calculations are likely to understate the potential for adverse effects, ARP indices for the Imp planning area present a bleak picture. The Upper Clackamas Watershed Analysis shows that the streams in the project area are currently not performing properly due to past management activity. Why are other sales not included? *See response to ONRC comment #7.*

IV. The Imp PA Inadequately Analyzes The Impact To Species

A. Threatened, Endangered, and Sensitive Species. It appears the Forest did not **survey** for all Threatened, Endangered, or Sensitive Species. *See response to BARK comment II A 3.*

1. **Fish** – The area does not appear to be experiencing rapid hydrological recovery. The Clackamas River watershed is one of the few refuges left for wild endangered stocks of fish. *The EA indicates that there would be no effect to listed species (p 21-23). Professional observations and data indicate that the area is experiencing rapid hydrological recovery. Young plantations that were open and allowing snow to accumulate on the ground just a few years ago, now have closed canopies that intercept snow. In this area, plantations between the ages of 15 and 30 experience the most rapid hydrologic recovery. The abundance of stands in this age group is the reason behind the dramatic cumulative hydrologic recovery shown on the graph on EA page 24.*

2. **Northern Spotted Owls** - The Forest Service has neither assessed nor adjusted the spotted owl environmental baseline for the Imp planning area. It has not completed population surveys for the species as required by the ESA, and has no idea how many owls and owl pairs are located in the Imp planning area. Using a habitat model as a surrogate for population surveys may be acceptable in the context of assessing the impacts of timber sales on management indicator species, but threatened and endangered species demand greater protection pursuant to the ESA.

We strongly urge the USFS to reconsider implementing the Imp timber sale because of its adverse effects on the northern spotted owl. Rather than offering a timber sale that both the USFS and FWS acknowledge will adversely affect owls and may be forestalled by litigation, we suggest that the USFS reconsider the Imp sale to remove any possibility of adverse impact to this species. This may be accomplished by changing harvest prescriptions to thinning, removing any old growth component, and dropping all units that will degrade owl habitat. *The EA analyses impacts to spotted owls (p. 37-39). The analysis conforms to protocol established by U.S. Fish and Wildlife Service. See response to ONRC comment #6. The option of altering the sale to eliminate all impacts to spotted owls would be similar to the no-action alternative.*

b. Lack of assessment of impacts to and protection of **Critical Habitat Unit** OR 11 precludes implementation of the Imp timber sale. *See response to ONRC comment #6.*

All of the units occur within the Roaring River/Upper Clackamas **Area of Concern** that is noted within the North Willamette LSR Assessment. By definition, these units are critical to the survival and recovery of the owl. *In the EA, interim connectivity is discussed (p. 39). The interim connectivity design cells are not within late-successional reserves but are matrix lands that are providing for connectivity while the reserves are restored. The LSR Assessment,*

General Areas of Concern (USDA 1998b, p. 3-80) states “Areas in the Oak Grove Watershed were identified as important connectivity areas to provide some habitat redundancy... There is enough area in the interim connectivity design cells that connectivity objectives should be met.” Imp units are located outside of the interim connectivity design cells.

d. The USFS failed to design Imp – or any other of the proximate sales – to reverse the downward spotted **owl population trend**. *The EA indicates that the project will not likely jeopardize the continued existence of spotted owls (p. 39).*

e. We are also concerned that the Forest Service has failed to assess the effects of **interspecies competition** on spotted owl viability. *Interspecies competition is one of the reasons for the evaluation of habitat fragmentation, addressed in the EA on page 38.*

B. MANAGEMENT INDICATOR SPECIES

1. Deer and Elk – Current **road densities** are approximately 1.8 miles per square mile, slightly exceeding the recommended level of 1.5. Disturbance does indeed affect animals’ health, as their health can deteriorate due to loss of body weight in traveling farther distances, and by being agitated. The PA also fails to disclose the effectiveness – or lack thereof – of road closures in the area. Finally, the USFS continues to fail to address the cumulative impacts to deer and elk as a result of several timber project adjacent to the Imp planning area. *The EA includes a discussion of the effects to deer and elk and the effectiveness of road closures (p. 47-48). Adjacent projects are included in the cumulative effects analysis. Unit #7 is the only part of the project in winter range where the open road density objective is 1.5 miles per square mile. The roads in the vicinity of Unit #7 are currently closed and will be reclosed upon project completion.*

2. Snag-Dependent Species - The USFS approach is flawed. Logging will remove **snags** and down woody debris from a planning area that is already deficient in these features. Moreover, recent scientific findings for snag retention are insufficient to provide adequate habitat for species that depend on snags. Creating new snags does not replace the loss of habitat. Snags should be inventoried. *See response to ONRC comment #5.*

C. Fish Species – The agency is contributing to an ongoing violation of the Clean Water Act. *The project would not violate the Clean Water Act (EA p. 27).*

D. **Migratory Birds** - According to the PA, the Imp timber sale would reduce habitat for migratory birds. *The EA includes a discussion of effects to migratory birds (p. 49-50). There is abundant habitat available for migratory birds in protected lands such as wilderness areas, riparian reserves and late-successional reserves.*

E1&2. Similar to the lack of discussion regarding direct and indirect impacts to **marten**, the Forest Service failed to assess how the Imp project will affect **Pacific fisher Wild Cats & Bears**. *Pine marten effects are discussed in the EA (p. 49). Pacific fisher, wild cats and bears are not management indicator species in this area (Forest Plan pages Four-21 and 22).*

F. **Mycorrhizae** - The Imp PA did not recognize the importance of mycorrhizal fungi on forest growth and productivity, and failed to discuss how mycorrhizae will be impacted by the proposed timber project. In fact, this resource’s important function in forest ecology was

completely overlooked. *The EA describes effects to soils and mycorrhizal fungi (p. 52). The EA is tiered to the Northwest Forest Plan FSEIS, which contains a discussion of soils (p 3&4-108). Standards for soil protection, woody debris retention and green tree retention are designed to provide for the needs of mycorrhizal fungi and other soil organisms.*

E. **Noxious Weeds** - The Imp PA has acknowledged that noxious weeds are a problem, and proposes mitigation measures such as washing all heavy equipment before it comes into the planning area. Is there any evidence that the proposed mitigation have proved to be successful? If so, what is the success rate of each of the mitigation measures? Do you have any data? What are the risks of these measures failing? How would you monitor success of these measures during implementation of the project? How building more roads and bringing in heavy machinery and other vehicles that carry noxious weed seeds assisting with prevention? *The EA includes a discussion of noxious weeds (p. 62-64). The requirement to wash equipment is one of several nation-wide requirements developed after years of investigation to find ways to contain the spread of certain weeds. Heavy machinery and other vehicles that can carry noxious weed seeds would be washed to remove seeds.*

V. The Imp PA inadequately analyzes the impact to **soil** resources. We are concerned that the Forest Service has not analyzed this factor sufficiently in relation to soil's ecological importance nor in relation to the standards proscribed by law. You have not analyzed macropore space (MHLRMP, Four-49), and cumulative effects are not analyzed to determine the true effect of this logging, particularly in light of the number of sales nearby (BE, unpaginated). There is also no reference in the chart to the effect of burning the slash piles. Finally, there is no analysis of rut depth or effective ground cover (MHLRMP, Four-49). We are concerned that the Forest Service is only maintaining the minimal, easy-to-gauge 15% analysis and not completing the full analysis needed to analyze the true effects on soils. There are specific problems with the PA's total lack of information on organic soil components. These organisms perform critical processes and functions. Soil decomposers (bacteria, fungi and possibly certain arthropods) are responsible for nutrient retention in soil. If nutrients are not retained within an ecosystem, future productivity of the ecosystem will be reduced. Broadcast burning will cause a loss of the ground cover nutrient layer and surface soils. *The EA describes effects to soils (p. 51-54). The EA is tiered to the Northwest Forest Plan FSEIS, which contains a discussion of soils (p 3&4-108). Standards for soil protection, woody debris retention and green tree retention are designed to protect soils.* The Forest Monitoring Plan indicates that soils are a concern, projects are not meeting standards, and Best Management Practices are ineffective. *The statements about monitoring results are taken out of context. Past monitoring of similar projects types has been shown to result in soil degradation at 6% or less (2001 Monitoring Report page 21). Monitoring has shown the effectiveness of best management practices and of the ability of projects designed using current standards to protect soils and water quality.* The Forest Monitoring Plan found an area where grass failed to grow due to hot dry conditions. It will also fail to grow at Imp. *The temporary roads and skid trails in Imp that may need seeding for erosion control are not in hot dry locations but are partially shaded by 10-15 trees per acre.*

VI. Benefits to the public - There is no analysis of the socioeconomic benefits of **unlogged forests** in areas where logging is contemplated, but also an analysis of the rate of return that could be achieved if timber sale monies were spent on other projects such as recreation, wildlife, or watershed restoration. *See response to I B above.*

VII. The Imp PA fails to use appropriate vegetation manipulation methods. *The proposed harvest method and logging systems have been designed to minimize effects to soil, water and other resources.*

VIII. The Imp PA inappropriately bases the logging techniques and choice of alternative primarily on economics. There is no justification other than economic considerations for using ground based logging systems. The local county no longer bases its economic livelihood solely on timber production. *The EA indicates that skyline or helicopter logging systems are being proposed on slopes greater than 20% (p. 16). Ground based logging is proposed on flat ground, which comprises 64% of the unit acres (p. 53).*

OTHER SUBSTANTIVE COMMENTS - other letters and e-mails contained comments that are similar to or are duplicates of the ones summarized above.