

Dear Jim Rice,

I am writing to comment on the Four Thinning Projects in the Clackamas Ranger District. I am very concerned about all four of these projects, as I spend much time hiking in all four of the affected watersheds. While I support restoration projects, I am wary that these sales may, through their connection with the commercial timber sale program, become detrimental to the affected environment rather than a restorative. After visiting several units of the Collawash, the following are my initial concerns, questions, and recommendations.

1. What Type of Forest will be logged in this project? Specifically, I would like to know if the forests are native or if they are plantation. I am very concerned about commercially logging any forests that we did not plant, as there is so little native forest left.

2. What will the restrictions on logging these areas be? Will there be an upper diameter limit on which trees can be logged? Walking through the Collawash units I noticed several nice nurse logs on the north side of Unit 423. What kind of precautions will be taken to protect those nurse logs? How many nurse logs are there in the thinning units over all? How many snags? How does the amount of snags and nurse logs vary for each of the four sales? How will the prescriptions vary for different units based on these differences?

3. The scoping letter states that, "There are many second-growth stands that are experiencing a slowing of growth due to overcrowding." How do you define overcrowding? The PNW Science Update "Restoring Complexity: 2<sup>nd</sup> Growth Forests & Habitat Diversity" states that "crowded trees are tall but skinny; little vegetation grows on the forest floor" (4). The Collawash units seemed to have a rich diversity of life on the forest floor. There was much Oregon grape, vine maple, and rhododendrum. I saw trillium and other native flowers sprouting up. What will happen to this understory during logging?

4. Canopy Coverage: In the Collawash units I visited, a decent amount of light appeared to be reaching the forest floor. What is the current canopy coverage for all units? What will the canopy coverage be after logging? I am concerned that if the canopy coverage is significantly decreased the understory will receive too much sun and dry out. This is a pacific concern for the Pacific Yew trees I saw in unit 420. Pacific Yews, as you know, depend on the shade provided by the surrounding trees to shield them from the light.

5. Steep Slopes: What is the steepness of the slope in the units? How does that steepness vary for each of the four projects? How will thinning differ to account for difference in slope incline? Should we really be thinning on steep slopes in riparian areas? The units I visited in the Collawash were very wet, with ravines at almost regular intervals.

6. Blow-down potential: In the Collawash, much of the adjacent area was cut over. However, there were some stands of old growth adjacent to several of the units. The Eagle Sales dramatized the link between logging and blow-down of adjacent trees. How

will thinning these areas affect the blow-down potential of valuable habitat adjacent to the units? Also, I am concerned about the statement in the thinning letter that the trees are being thinned to reduce wind-damage susceptibility. What kind of science do you have that shows that thinning will reduce wind-damage susceptibility rather than increase it? If trees blowdown due to short-term increased wind-damage susceptibility they will be unable to garner the assumed long-term benefits.

7. Water Quality: All four of the thinning projects contain Riparian Reserve logging. How do you justify logging in the riparian reserves? Will thinning increase erosion? How long before any long term benefits are seen to the water supply? How long would the negative effects of logging and stream bank erosion affect the riparian areas? How long would it take the area to obtain structural diversity? What kinds of structural diversity are in particular missing? I saw nurse logs and a thriving understory in the Collawash units. What kind of negative effects do you see the current state of the forest as bringing to the water supply?

8. What is the landslide risk for all of these projects? I would like to see a map for each thinning area with the landslide risk layered over the units. How are different unit plans accounting for different landslide risks? What different methods of logging are being considered? How are different methods of logging accountable to different landslide risks?

9. Deer/Elk Forage: In the scoping letter there is a reference for a need to enhance deer and elk forage. Is this true?? According to the Watershed Analysis for the four affected watersheds, there is already quite a bit of early seral forage ranging from 24% in the Collawash to 35% in the South Fork. What percentage of each watershed would you proposed be in the early seral state? What percentage of each watershed would you proposed be used for deer and elk habitat? In Collawash unit 420 I saw deer and elk scat. If there are currently deer and elk using Collawash unit 420, will they still be able to after logging is complete? What plants do deer and elk need? If heavy machinery is used, won't that negatively affect the plants they need?

8. Road Density: I am very concerned about the potential for proposed road building. I am opposed to any additional roads (even temporary or reconstructed roads) in any of these areas. All four of the project areas are already heavily roaded. A true restoration project in these areas would be primarily focused on removing roads. There are already 3,000 acres of roads within the Mt. Hood National Forest. What are the current road densities for these areas, including the roads to be built for other proposed timber sales? If there are to be road reconstructions, what is the exact state of the roads to be reconstructed? If there are trees growing on these roads to be reconstructed, how tall and how old are the trees?

9. Stand Diversity: What species of trees are found in the units? Is the thinning going to be targeting a particular species of tree? Why?

10. Soil Compaction: I am very concerned about the effect of these thinning projects on the soils in the area. Walking through the Collawash area it was immediately apparent to me how much logging had already taken place. Walking up the hills from unit 423, down towards 420, I was offered an amazing overview full of clear-cuts and early seral vegetation. The little productive soil left in this watershed should remain unharmed. How will the thinning sales protect the productivity of the soils and prevent compaction? Will heavy machinery be used? I would have far fewer concerns with a timber sale that relied primarily on hand-thinning. I recently walked the test plots of the Pollalie-Cooper Timber Sale in the Barlow district where different methods of fuels burning were completed. One plot used heavy machinery to mechanically pile the fuels. In another plot, the fuels were hand-piled. The difference in the impact to the soils was striking and obvious. The ground cover of the hand-piled unit was still alive and still partially green. There were still young trees and native plants growing. However, the unit that had heavy machinery drive through it was barren and dry. Because of this observation, I urge you to keep all heavy machinery out of the thinning units.

11. Method of Logging: What method of logging do you intend to use? What method of yarding? Can you compare the different potential types of logging and yarding to be used and their various impacts on water quality, wildlife, and understory? I would hope that the method of logging and yarding least impactful to water, wildlife, and understory would be chosen.

12. Post-Harvest Plans: What species would be planted to provide for the deer and elk forage? Do you plan to re-enter these stands at some point? How often do you plan to re-enter these stands for additional harvest? Do you plan to re-enter any of the stands near the proposed harvest units? At what point do you plan to re-enter adjacent stands and how often? If you do plan to continually re-enter either the proposed thinning units or areas adjacent to the thinning units, how will that continual disturbance affect landslide risk, erosion, quality of wildlife habitat, and water quality?

13. Invasive Weeds: I am very concerned about invasive weeds entering or increasing in these four watersheds. There is scotchbroom visible from the roads of all four watersheds. In the Collawash watershed, I came across large patches of it on old roads and old cuts. Additional road building and logging seems as if it will increase the amount of invasive weeds present in the watersheds. What measures will be taken to mitigate the entrance of invasives into these watersheds if logging and road building are to commence? What are the invasive species you are most concerned with? What risk do those species pose for the watershed? Have you considered including removal of invasives already present as part of the proposed project?

14. Economics: I am concerned about the economics of this timber sale. According to the scoping letter, one of the goals of this project is to “provide wood fiber for local and regional economies.” Is the only way to contribute to the local and regional economies through thinning? I would like to see that goal of the project re-worded. It seems to me that restoration projects lacking commercial thinning such as road removal could become a vital part of local and regional economies. I would like the economic benefits for

local economies of a road removal project in these four watersheds considered in upcoming environmental assessments. Will the Forest Service actually make money on this sale? If the Forest Service won't actually make money on the sale, it seems as if we could contribute to the local economy with that same money that would be spent without return planning timber sales, by planning restoration projects without a commercial timber sale aspect.

16. Wildlife: What kind of wildlife currently uses these areas? On my hike through the Collawash thinning projects I noticed deer and elk scat, salamanders, and many birds including either a pheasant or a grouse. How will the animals that use this area be affected by the logging? Is there available habitat in adjacent areas? Much of the Collawash watershed seemed so logged over, and the Oak Grove is also a highly fragmented watershed. How long will negative impacts to wildlife from logging last? Will there be any seasonal restrictions for wildlife in place? What will they be?

17. Aerial Fertilization: I am very concerned about the aerial fertilization proposed in this sale, and especially for the aerial fertilization proposed in the riparian areas. What will the affect of the fertilizer be on the riparian areas and water quality? Why will the forest need fertilization? Where does the forest naturally get its nitrogen? I hope the environmental assessments particularly address whether those sources are an option here. If the felled trees are left on the soil instead of commercially sold, will fertilization still be necessary? I am very concerned about the cycle we are creating when we remove natural matter from the forest, only to find we need to replace it by aerially dumping fertilizer over large tracks of forest.

18. Collawash Specifics: As you hopefully know, the Collawash Watershed is a Tier 1 Watershed. My understanding of the Northwest Forest Plan is that ranger districts were not encouraged to commercially log in Tier 1 Watersheds. The Collawash Watershed is already highly impacted. How are you justifying logging in a Tier 1 Watershed? Furthermore, I am concerned about the high potential for landslides in the Collawash area, specifically in the areas where the units are located. Increasing the risk of landslides in a Tier 1 watershed seems against the spirit of the Northwest Forest Plan.

19. Cumulative Impacts: All four of the watersheds proposed for thinning projects have many timber sales in them, and have been highly cut over in the past. I hope that the discussion of cumulative impacts for these four environmental assessments will be far more extensive than the discussions of cumulative impacts I have seen for other sales in these watersheds. What are the recommended harvest levels in each of the four watershed analysis? What is the current harvest this decade, including all proposed sales?

20. Four Different EAs: I feel strongly that these four projects should be considered separately. In the Scoping Letter you make it clear you intend to complete four different environmental assessments for these projects. I strongly support there being four different assessments. These projects vary in specific issues related to their watershed, as well as appearing at different slopes and at different elevations. The issues relating to these four projects are disparate enough that they deserve separate consideration.

21. Restoration or commercial thin: Are these projects intended to be primarily restoration projects or primarily commercial timber sale projects? I would like to see this issue directly addressed in the environmental assessment for each project. When the two goals are competing, which will over-ride for these projects?

22. Restoration Only Alternative: There is much restoration work to be done in these watersheds. The road density in all of these watersheds deserves to be re-looked at and actively reduced. There are many occurrences of invasives in these areas as well. I would like to see several alternatives to this sale seriously considered, including an alternative with no commercial thinning – where the by products are not sold, but which does include restoration projects such as road removal.

While I am pleased to see this sale isn't targeting ancient forest for clear-cutting (as so many Clackamas sales are), I am concerned about the effects of further commercial logging in areas already so highly stressed. I am especially concerned about the logging of native forests. Thank you for the opportunity to comment on these projects.

Sincerely,

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&  
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