BARK
PO Box 12065
Portland, OR 97212
www.bark-out.org
503-331-0374

11/13/2015

John Huston
Field Manager
BLM – Salem District
1717 Fabry Road SE
Salem, OR 97306
RE: Hole in the Road scoping comments

Dear John,

Bark's mission is to bring about a transformation of public lands on and around Mt. Hood into a place where natural processes prevail, where wildlife thrives and where local communities have a social, cultural, and economic investment in its restoration and preservation. Bark has over 25,000 supporters[1] who use the public land lands surrounding Mt. Hood, including the areas proposed for logging in this project, for a wide range of uses including, but not limited to: clean drinking water, hiking, nature study, non-timber forest product collection, spiritual renewal, and recreation. We submit these comments on behalf of our supporters.

The Hole in the Road project would log forests from 40 to 135 years old on 440 acres within the project area. This includes 60 acres of forest within the eligible Wild and Scenic Molalla River boundary, and approximately 25 acres of Riparian Reserves in which active management can only occur if required to "[m]aintain and restore" nine indicators of watershed health, such as the physical integrity of the aquatic system, water quality, in-stream flows, and habitat for riparian-dependent species. *NFP at B-10.* Other land use allocations within in this project include Matrix and Late Successional Reserves. Bark volunteers have walked several stands within the Hole in the Road project area, and many of the following comments reflect these on-the-ground observations.

[1] Supporters in this case is defined as significant donors and petition-signees which Bark has identified as being active users of Mount Hood National Forest.

PUBLIC PARTICIPATION

The Hole in the Road scoping letter, which provides substantial spatial detail regarding specific areas being proposed for commercial logging, increases the likelihood of resolving concerns by interested stakeholders in an efficient and timely fashion. We hope that this will also increase the likelihood of the BLM being willing to engage with us on the issues we present.

In recent NEPA comments to federal land management agencies, Bark has provided much factual information, as well as raising several concerns regarding commercial logging and road building, that have been oftentimes disregarded. A greater level of pre-decisional engagement is especially valuable for all parties and will result in better, more informed decisions. Bark requests detailed, direct responses to public input, including changing the project further to address input and concerns, as this is the only way to maintain meaningful involvement in the decision making process for our public lands.

PROPOSED ACTIVE MANAGEMENT IN RIPARIAN RESERVES

In the large un-labeled unit surrounding Rd. 7-3E-16, in the southern portion of Sec. 16, there is an area of designated Riparian Reserve (Fig. 1), fed by a 16 inch culvert at the road (Fig. 2). Bark volunteers found this area to be exceedingly sensitive to any ground-based disturbances, as the water table is high and the channel itself weaves above and below ground at unpredictable intervals.

Figure 1: Riparian area in large un-labeled unit surrounding Rd. 7-3E-16

Dede Olson, a research ecologist with the U.S. Forest Service Pacific

Northwest Research Station recently stated in a 2015 PNW Research Station issue of Science Findings: "Managing for healthy riparian areas in head-waters provides many downstream benefits…(d)ownstream productivity, water temperature, and instream habitat are tied to the health of the headwater stream-riparian system."[2] Of the 15 vertebrates recorded by Olson in her recent study of headwater streams, most have strong associations to features specific to small headwater streams. "Torrent salamanders, which are species of concern in Oregon and Washington, are associated with the upper-most intermittent streams, for example. You don't see them in big water." In nearby past projects, Bark volunteers found an assortment of amphibian diversity in the watershed, including Oregon slender salamanders in units of the Annie's Cabin project. With this in mind, Bark recommends removing the Riparian Reserve portions from the aforementioned unit, as well as because of its inconsistency with the Aquatic Conservation Strategy (ACS).

Figure 2: Culvert feeding riparian area in large un-labeled unit surrounding Rd. 7-3E-16

As you know, the Northwest Forest Plan established the ACS to "restore and maintain the ecological health of watersheds and aquatic ecosystems" and established land use designations, such as Riparian Reserves, to ensure heighted protection of ecologically sensitive lands. *NFP at B-9.* The Aquatic Conservation Strategy Objectives require that BLM-administered lands be managed to "[m]aintain and restore" nine indicators of watershed health, such as the physical integrity of the aquatic system, water quality, in-stream flows, and habitat for riparian-dependent species. *NFP at B-10.* The Northwest Forest Plan provides that "[c]omplying with the Aquatic Conservation Strategy objectives means that an agency must manage the riparian dependent resources to maintain the existing condition or implement actions to restore conditions." *NFP at B-10.* By contrast, "[m]anagement actions that do not maintain the existing condition and lead to improved conditions in

[2] USDA Pacific Northwest Research Station. 2015. Heed the Head: Buffer Benefits Along Headwater Streams. Science Findings #178. http://www.fs.fed.us/pnw/sciencef/scifi178.pdf

the long-term do not 'meet' the intent of the Aquatic Conservation Strategy and should not be implemented."

The Northwest Forest Plan's TM-1 Standard for timber management specifies that the agency must "[p]rohibit timber harvest including fuelwood cutting in Riparian Reserves" except in three circumstances. *NFP at C-33*. The third is invoked for logging the Riparian Reserves here, which permits "silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics **needed** to attain Aquatic Conservation Strategy objectives."

Thus, the starting place is that commercial logging in Riparian Reserves is prohibited, unless the BLM makes an affirmative finding that it is needed to attain the ACS Objectives. As detailed below, the best available science shows that the logging in Riparian Reserves is *not* needed to achieve the ACS objectives, in fact, that these actions will retard such compliance.

The Hole in the Road project would log 25 acres of forest in Riparian Reserves. In a new report titled *Conservation of Aquatic and Fishery Resources in the Pacific Northwest: Implications of New Science for the Aquatic Conservation Strategy of the Northwest Forest Plan*, authors recommend that "(t)hinning and fuels reduction by means of mechanized equipment or for commercial log removal purposes should be generally prohibited in Riparian Reserves and Key Watersheds." The report's authors and science panel members not only represent the best available science, but have developed much of the relevant science over the course of their professional careers. The report is the most complete synthesis of aquatic science related to the NFP since the development of the Plan in 1993. This proposed action as written so far is in conflict with the key findings of the Coast Range Association's ACS report.

Several sources are now pointing to passive management as the best approach to achieve ACSOs in Riparian Reserves. Pollock and Beechie[3] reviewed the sizes of deadwood and live trees used by different vertebrate species to understand which species are likely to benefit from different thinning treatments. They then examined how riparian thinning affects the long-term development of both large diameter live trees and dead wood. Ultimately, they used a forest growth model to examine how different forest thinning intensities might affect the long-term

[3] Pollock, Michael M. and Timothy J. Beechie, 2014. Does Riparian Forest Restoration Thinning Enhance Biodiversity? The Ecological Importance of Large Wood. Journal of the American Water Resources Association (JAWRA) 50(3): 543-559. DOI: 10.1111/jawr.12206

production and abundance of live trees and dead wood. In Pollock and Beechie's study, passive management created dense forests that produced large volumes of large diameter deadwood over extended time periods as overstory tree densities slowly declined.

Pollock and Beechie's results showed that the few species that utilize large diameter live trees exclusively may benefit from heavy thinning, whereas species that utilize large diameter dead wood benefit most from light or no thinning: "because far more vertebrate species utilize large deadwood rather than large live trees, allowing riparian forests to naturally develop may result in the most rapid and sustained development of structural features important to most terrestrial and aquatic vertebrates."

Similarly, Spies et al.[4] concluded that thinning produces unusually low-stem-density forests and causes long–term depletion of snag and wood recruitment that is likely detrimental in most Riparian Reserves. According to this work, thinning with removal of trees will generally produce fewer large dead trees across a range of sizes over the several decades following thinning and the life-time of the stand relative to equivalent stands that are not thinned. Generally, recruitment of dead wood to streams would likewise be reduced in conventionally thinned stands relative to un-thinned stands.

Considering the developing science around riparian thinning, the solution to this problem may NOT be to take more trees out of the ecosystem before they reach the age/size to fall on their own. Removing the trees that are most likely to die naturally necessarily decreases the amount of trees in the Riparian Reserves that would become in-stream coarse woody debris. This seems especially important as the Molalla River Watershed is frequented by anadromous winter steelhead trout (*Oncorhynchus mykiss*) and spring Chinook salmon (*O. tshawytscha*), both in decline, which depend on healthy riparian conditions upstream.

The BLM has not affirmatively demonstrated the need for commercial thinning to attain ACS objectives in this project. **Bark requests that the BLM remove all commercial logging from Riparian Reserves (25 acres).**

[4] Spies, T., M. Pollock, G. Reeves, and T. Beechie. 2013. Effects of riparian thinning on wood recruitment: A scientific synthesis. Science Review Team, Wood Recruitment Subgroup, Forestry Sciences Laboratory, Corvallis, OR, and Northwest Fisheries Science Center, Seattle, WA. 28 January 2013. 46pp. http://www.mediate.com/DSConsulting/docs/FINAL%20wood%20recruitment%20document.pdf

AVOIDANCE OF FURTHER OHV RELATED IMPACTS

Figure 3: Bermed area restricting access to rehabilitated trails off Rd. 7-3E-16

In the large un-labeled unit surrounding Rd. 7-3E-16, in the southern portion of Sec. 16, Bark volunteers found evidence of rehabilitation efforts on user-created trails (Fig. 3) that intersected a wet area just south of the road, and Riparian Reserves still included in the 10/28/15 reposted map of this unit. The area was bermed at the road, and trees were pulled down across three trails running radially from this point. We have seen these types of circumstances in other projects proposed by the Forest Service in the nearby Clackamas River Ranger District. Bark is concerned that accessing this unit at this spot for logging could result in an increase of OHV access to this wet area and would undo the restoration work done to remedy the damage done by the original entries. **We believe the BLM could avoid this by 1) limiting construction of temporary roads accessed by Rd. 7-3E-16; 2) ensuring controlled access during the project (blocking access in between operating seasons); and 3) timely & secure access closure upon the project's completion.**

ACTIVITIES WITHIN THE ELIGIBLE WILD & SCENIC CORRIDOR

Congress first enacted the Wild and Scenic Rivers Act to preserve "in free-flowing condition" rivers of the United States that "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values." *Id.* It is national policy to protect such rivers' "immediate environments… for the benefit and enjoyment of present and future generations." The BLM must give "[p]articular attention . . . to scheduled timber harvesting, road construction and similar activities which might be contrary to the purposes" of the Wild and Scenic Rivers Act. Bark believes that logging, and

especially road construction, in the eligible Wild and Scenic Molalla River corridor is contradictory to protecting the values listed above.

Within designated Wild, Scenic and Recreational River corridors, management activities must "protect and/or enhance the identified outstandingly remarkable values" for which the segments were designated, as well as the "[r]iver characteristics necessary to support the existing classification" of those segments. In wild river segments, timber harvest and salvage are prohibited except for limited insect, fire and safety exception; within scenic and recreational river segments, regulated timber harvest should occur so long as "recreation opportunity spectrum" classes and "visual quality objectives" are met. New roads are prohibited in wild river corridors, but existing roads are allowed to be "phased out and rehabilitated." How does the agency see logging and roadbuilding within this corridor as consistent with the remarkable values identified for this area? How does logging and roadbuilding maintain and restore this corridor, and the Molalla River Watershed as a whole? It is clear that new roads should be prohibited in this area. **We therefore do not anticipate that the agency will propose any new roadbuilding in this eligible Wild and Scenic corridor as part of future Hole in the Road planning documents.**

ROAD-RELATED WORK TO BE COMPLETED WITH THE HOLE IN THE ROAD PROJECT

The scoping letter does not include any specifics regarding proposed road work, other than stating that "(r)elated activities being considered are…renovating existing roads and/or constructing new roads to provide access for logging, decommissioning or closing and stabilizing roads after logging, maintaining roads, improving or replacing culverts"

As regards road impacts, the Molalla River Watershed Analysis (MRWA) sates: "From a water quality perspective, high water temperatures and event-related turbidity are significant problems throughout the watershed. Road densities and open areas that create increased runoff and potential for erosion and sediments are at moderate to high levels in all areas of the watershed." *MRWA at p. 4*

Road construction is by far the greatest contributor of sediment to aquatic habitats of any management activity in the forest.[5] [6] Even temporary road construction can cause resource damage including erosion and sedimentation. [7] In the Coast Range Association's aforementioned ACS report, the issue of road building is addressed, and recommendations from the report include:

- "Prohibit the construction of new permanent and "temporary" roads, except in limited instances were construction of a short segment of new road is coupled with and necessary for the decommissioning of longer and more damaging segments of existing road."
- "Allow no net increase in road density in any watershed."
- "Require each proposed forestry and other development project to meet a target of incremental reduction of the road system in all watersheds affected by the project."
- "(R)oads for which there are not adequate funds for maintenance and upkeep should be decommissioned."

Bark echoes these recommendations for most projects on federal lands we monitor. **We ask the BLM to consider these recommendations as they develop alternatives for the Hole in the Road project.**

In addition to construction and reconstruction impacts, elevated road use for log-haul also greatly elevates erosion and sediment delivery on unpaved roads. Unpaved roads and stream crossings are the major source of erosion from forest lands contributing up to 90% of the total sediment production from forestry operations. Research on logging roads has consistently documented that roads used by more than four logging trucks per day generated more than seven times the sediment generated from roads with less use and more than 100 times the sediment from abandoned roads[8]. A Forest Service summary of scientific information on roads[9] concluded that "rates of sediment delivery from unpaved

[5] Meehan, W.R. (ed.), 1991. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. Am. Fish. Soc. Special Publication 19

[6] Robichaud, P.R.; Ashmun, L.E.; Sims, B.D. 2010. Post-fire treatment effectiveness for hillslope stabilization. General Technical Report RMRS-GTR-240. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. p. 62

[7] Trombulak, S.C., and C.A. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. Conservation Biology 14: 18-30.

[8] Reid, L.M., Dunne, T., and C.J. Cederholm, 1981. Application of sediment budget studies to the evaluation of logging road impact. J. Hydrol (NZ), 29: 49-62.

[9] Gucinski, H., M.J. Furniss, R.R. Ziemer, and M.H. Brookes. 2001. Forest roads: a synthesis of scientific information. General Technical Report PNW-GTR-509. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 103 p. Available online at: http://www.fs.fed.us/eng/road_mgt/science.pdf

roads are . . . closely correlated to traffic volume." Even with a road surface of crushed rock aggregate[10], documented that elevated truck traffic increased sediment production by 2 to 25 times that on unused roads in western Oregon.

Primary mechanisms for increased erosion and sediment production from road use are the production of highly mobile fine sediment on road surfaces, road prism damage, disruption of gravel or aggregate surfaces, and rutting. On constructed and reconstructed roads, the highly elevated sediment production from roads used for haul is delivered to streams at stream crossings and other points of connectivity between streams and roads, such as gullies and relief drainage features that dump elevated road runoff laden with sediment to areas in relatively close proximity (e.g., less than 300 feet) to streams. This impact of log hauling at stream crossings, alone, will greatly elevate sediment delivery to the stream system. **The Hole in the Road PA should include data regarding the projected increase of sediment from any proposed road building AND log haul on all roads used.**

PRESENCE OF RED TREE VOLES

Towards the south-central section of the larger unit in Sec. 27, Barkers found flagging high up in a tree with the letters "RTV" (Fig. 4) included on the flagging below. It was unclear to us whether or not this was a red tree vole survey, and if it had resulted in a positive ID. Red tree voles are a Survey & Manage species, and according to the IUCN Red List are "near-threatened". Threats to this species include loss of forest habitat and forest fragmentation[11]. This species appears to have limited dispersal capabilities, and early seral stage forests may be a barrier to dispersal. **Have surveys been done for this species in this sale, and if so, have the boundaries of units been adjusted to protect this species?**

[10] Foltz, R.B. and Burroughs, E.R., Jr. 1990. Sediment production from forest roads with wheel ruts. In: Proceedings from Watershed Planning and Analysis in Action. Symposium Proceedings of IR Conference, Watershed Mgt, IR Div, American Society of Civil Engineers, Durango, CO, July 9-11, 1990. pp. 266-275.

[11] Linzey, A.V. & NatureServe (Scheuering, E. & Hammerson, G.). 2008. Arborimus longicaudus. The IUCN Red List of Threatened Species 2008: e.T42615A10729936.
http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T42615A10729936.en . Downloaded on 11 November 2015.

Figure 4: Survey flagging indicating possible presence of red tree vole habitat

PROPOSED ACTIVITIES IN DIVERSE & NATIVE FOREST

The northeast corner of the larger unit in Sec. 27 (adjacent to the clearcut in Sec. 26) is structurally diverse and appears to have not been logged before. Vertical and horizontal structure is diverse and intact (Fig. 5), with small and large trees, down wood of various sizes and decay classes, and several large snags. In this part of the unit, western hemlock is thriving, with mature trees which Bark volunteers measured up to 36 in. DBH.(Fig. 6), and even larger scattered Douglas firs

The stand is suitable for species associated with late-successional habitat, such as the multiple species of *Ramaria* we found in the area (Fig. 7). Although this part of the forest is in Matrix, we do not see any ecological benefit to logging native forest at this time, and **request that the BLM drop this section of this unit, along with any other previously-unmanaged stands included in this proposal.**

Figure 5: Diverse large wood structure in northeastern portion of un-named unit in Sec. 27

Figure 6: 36 inch diameter western hemlock in northeastern portion of un-named unit in Sec. 27

THINNING FROM BELOW

In some units we have visited, even previously managed stands contained large diameter trees between 30 and 50 inches in diameter (Fig. 8). Trees of this size are of utmost importance to maintaining habitat for the majority of organisms associated with late successional forests.[12] Because of this, **Bark requests that this project start with a "thinning from below" prescription to protect the legacy structures currently in these units.**

[12] Marcot, B.G., J.L. Ohmann, K.L. Mellen-McLean, and K.L. Waddell, 2010. Synthesis of Regional Wildlife and Vegetation Field Studies of Guide Management of Standing and Down Trees. Forest Science 56:391-404.

Figure 8: Large diameter Douglas fir in un-named unit in Sec. 22

CUMULATIVE IMPACTS FROM SURROUNDING PRIVATE FOREST LAND

Bark has concerns about the proposed logging in Sec. 27 within the larger, southern unit bordering private land in Sec. 26. The northeastern unit boundary is directly adjacent to a clearcut (Fig. 9) and is already impacted by some blowdown. How does the BLM predict the proposed thinning will affect future blowdown? Will decreasing tree density along this edge lead to the remaining trees becoming less wind-firm? **The cumulative impacts of neighboring clearcuts with the proposed sale must be addressed in the PA.**

Figure 9: Private clearcut adjacent to northeastern portion of un-named unit in Sec. 27

RELIABILITY OF BLM'S PROJECT DESIGN FEATURES

Figure 10: Skid trail on steep slope in Missouri Ridge Unit 1

Bark's recent experience of visiting the nearby logged and yarded Missouri Ridge Timber Sale raises questions about the ability of the BLM to ensure that Project Design Features (PDFs) will be followed for the Hole in the Road project.

The Project Design Features section of the Missouri Ridge Decision Rationale limited "ground based operations to relatively dry soil conditions". Based on what we saw on the ground at Unit 1, it did not appear that the soil was dry while operations were taking place. Deep ruts and compacted mud are good indicators of this. The degree of soil damage on the roads, skid trails and landings is as well. A Molalla resident told us that logging was occurring during rainy conditions when they visited the unit in fall 2013.

The PDFs also limited new skid trails to less than a 35% slope - see photo of a skid trail that we measured to be right at this limit (Fig. 10). The ruts on this skid trail are very deep. We found several steep skid trails on which there was water running downhill, carrying soil along with it.

According to the Missouri Ridge planning document, there were supposed to be erosion control measures placed on the roads over the winter. We found that the only such measures included shallow earthen waterbars, which were causing channelization along the roads and carrying sediment off the roadbed. In one case, the ditch next to the waterbar was eroded to mineral soil, and directing water downhill toward the buffered riparian area. In general there was a lot of

water movement and soil movement too on the roadbeds – they did NOT appear to be fully stabilized (Fig. 11).

Figure 11: Erosion run-off from newly built portion of road into Missouri Ridge Unit 1

We also brought up concerns that the two debris barricades (which were required to be placed on the new road construction) were very minimal, and put the area at risk for entry by motorized vehicles. We then noticed that there were several species of invasive plants in and around the unit. While we recognize that this had nothing to do with the recent timber harvest, it is disconcerting because we recently learned from the Forest Service via FOIA that the equipment used to log Missouri Ridge was then quickly moved to a timber sale unit within MHNF, without being inspected and certified weed-free. This does not inspire confidence that this equipment was weed-free when used on BLM land either.

We request that the agency provide a specific explanation of how the measures planned for the Hole in the Road project (e.g. enhanced PDF's based on lessons from recent sales; more stringent sale administration, etc.) will be more effective than those used during past timber sales.

CONCLUSION

Bark has several suggestions for moving forward with the Hole in the Road project, and requests that the agency incorporate these suggestions in the record which the agency can then assess for their economic feasibility and value.

1. Remove all commercial logging from Riparian Reserves (25 acres);
2. Limit construction of temporary roads accessed by Rd. 7-3E-16 while ensuring controlled access during the project (blocking access in between operating seasons) and install a timely & secure access closure upon the project's completion;
3. Do not propose any new roadbuilding within the eligible Wild and Scenic corridor;
4. Consider the road-related recommendations of the Coast Range Association's ACS report as the agency develops alternatives for the Hole in the Road project;
5. Include data regarding the projected increase of sediment from any proposed road building or log haul on all roads used for this project;
6. Complete field work required to adjust proposed treatment boundaries to protect any red tree voles;
7. Remove other previously-unmanaged stands included in this proposal;
8. Apply a "thinning from below" prescription to protect legacy structures in proposed treatment units;
9. Address the effect of neighboring clearcuts as a cumulative impact in the PA; and
10. Provide a specific explanation of how the measures planned for the Hole in the Road project (e.g. enhanced PDF's based on lessons from recent sales; more stringent sale administration, etc.) will be more effective than those used during past timber sales.

As the BLM is considering the optimal method of accomplishing the objectives of the Hole in the Road project, please consider that active management is not always the best avenue to achieve forest health. In the comments above, Bark has provided ample suggestions to improve this project – based on our field surveys of the project area and relevant knowledge pertaining to thinning, roads, and forest health. We anticipate a thorough review of these comments and look forward to the necessary changes made to both the forthcoming PA and the project itself.

Thank you,

Michael Krochta

Forest Watch Coordinator, Bark