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20 April, 2011

Re: The Dalles Watershed Phase II Scoping

Dear Ms. O'Connor Card,
Thank you for the opportunity to comment on the proposed Dalles Watershed Phase II project in the Barlow District. The Forest Service asserts that this project is needed to protect the drinking watershed of The Dalles from a catastrophic wildfire that may impact future water quality. To that end, the project logs 1,352 acres of natural forest and 107 acres of plantation, and applies mechanical fuels reduction and/or prescribed burning to 2,300 additional acres.

Bark has nearly 5,000 supporters, including several in and around the City of The Dalles, who rely on Mt. Hood National Forest 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 and include by reference all comments received by our supporters.

Bark participated in the collaborative process that preceded Phase I of this project; however we did not always agree with the outcomes of that process and many of our concerns remain. As we are not able to visit the site on our own, these scoping comments will not be as site-specific as Bark's comments often are. I request that the Forest Service host another site visit before the Environmental Assessment is complete to increase the public's ability to provide more site-specific input during the project planning process.

Please consider the following comments and questions as you design the project and prepare the Environmental Assessment:

Historic Fire Regime

Bark agrees that the Forest Service's past policy of fire exclusion did not recognize the important role that fire has an ecosystem regulator. However, decades of fire mismanagement should not give rise to hasty conclusions that large-scale thinning is the best way to restore a fire resilient ecosystem. Before taking action to restore fire in western forest ecosystems, the Forest Service must have a sound understanding of the historic fire regime and the potential effects of EuroAmericans on the fire regime and forest conditions. This requires area-specific research for the ecosystem of interest. (Veblen, 2003). Most importantly, the historical context should be as complete as possible to identify temporal trends that may be related to climatic variation for one or two centuries just prior to and during intensive EuroAmerican settlement. (Veblen, 2003). The Mill Creek Watershed Analysis ("WA") notes that not much is known about the historic fire regime in the watershed, and that "more detailed fire history studies. . . would better help establish an appropriate burn interval." (Watershed Analysis, p 30, 118).

In addition, different locations of the same forest ecosystem type have had different historic fire regimes for a variety of reasons: subtle differences in climatic seasonality, lightning patterns, understory characteristics, site productivity (related to geology, soils, and/or climate), and potentially use by Native Americans. (Veblen, 2003). The Forest Service should conduct unique fire regime research for each particular area in order to evaluate the general applicability of the fire exclusion/fuel buildup viewpoint. To that end, Bark requests that the Forest Service carefully document all of the above variables, and answer the questions below, to ensure its fuel reduction plan is specifically tailored to restoring the project area's historic fire regime.

Questions that the Forest Service should answer about the site before preparing a fuels management plan:

- Do modern fire regimes differ greatly from historic fire regimes?
- What was the temporal variability of the fire regime over multi-century reference periods?
- Is there clear evidence of disruption of frequent fires that occurred before EuroAmerican settlement?
- Did large, crown fire events occur prior to any effects of fire exclusion?
- What was the historic range of tree densities prior to effects of fire exclusion?

- What other explanations might account for dense stands today, such as stand responses to logging or abundant burning in the late 19th century or the effects of changes in grazing pressure?
- Has recent climatic variation contributed to any recent increases in fire, primarily to the effects of frequency or severity?
- Has climatic variation in the past resulted in fires of similar extent and severity to recent fires?
- What was the historical variability of pathogen and insect outbreaks prior to fire exclusion?
- What was the spatial variability of the fire regime within a particular ecosystem type?

Mixed Ecosystem and Coarse data prevents site-specific prescriptions

The Mill Creek Buttes area is a very mixed ecosystem with several different forest types and fire regimes – from Ponderosa Pine dominated forests to mixed conifer stands. As there are five different fire ecology groups in the watershed, and each group contains various sub-ecologies, it is necessary that Forest Service maps adequately distinguish between these fire groups with enough detail to ensure the correct prescription in different zones.

Moreover, fire scientists have noted that generally even the most detailed fuel maps are typically resolved to about 30 m, but this scale is still too coarse to reflect variability within the area, such as heavy fuel concentrations or thickets of trees. Such fine-scale variability is important and may have consequences to fire growth over landscapes, but it is unknowable for fire modeling. Fuel data tends to smooth out variation in order to represent the "average" condition. However, the average fuel condition does not produce the average fire behavior response because fire behavior responds nonlinearly to changes in fuels and weather. (Graham, et. al, 2004).

The lack of on-the-ground data may prevent effective fuels-treatment prescriptions. To restore ecological integrity, including the role of fire, treatments need to be tailored to site specific conditions with an adaptive approach. The Forest Service should not simply rely on the classic fire behavior triangle of fuels, topography, and climate, but should expand its analysis to include the spatial, temporal, and geographic variability of fire as well as components reflecting the interaction of fire with other ecological processes. (DellaSala, et. al. 2006, internal citations omitted).

Questions:

- Does the Forest Service have maps and planning documents that enable sufficient precision in planning treatments? If so, please make these available in the EA.
- If not, how does the Forest Service plan to ensure appropriate prescriptions over such a large and variable planning area?

Fire Risk & Hazard Analysis

The explicit purpose of this project is to reduce the risk of an "uncharacteristically severe wildfire." While this is an understandable goal, it is unclear that the project would achieve the desired results as fire is a force of nature that humans can neither predict nor control.

Available studies have failed to demonstrate that fuel treatments significantly altered the behavior, spread, or severity of wildfire. It remains the case that the only support for the unsubstantiated speculation that fuel treatments might reduce crown fire hazard is relegated solely to "... informal observations, nonsystematic inquiry, and simulation modeling..." (Graham et al., 2004).

Fire scientists acknowledge that no matter how well-planned a fuels reduction project may be, there still exists an unknowable fire environment at the time wildfires encounter treatments. Even if models were nearly perfect, scientists could never predict the exact conditions of a wildfire when it encounters a fuel treatment to measure the performance of the treatment. For example, the weather and wind conditions at a particular time, the attendant ignition location and direction of fire movement through the treatment, the degree of variability in the treatment conditions at the time of the fire – all these determine the performance of a fuel treatment in terms of the changes to fire behavior and effects. (Graham, et.al, 2004). As the Watershed Analysis conceded, research shows that stand structure and fuel complex are largely irrelevant under extreme conditions in which essentially everything will burn until the weather changes. (WA, 32).

Questions:

- How is the Forest Service determining the effectiveness of the proposed fuels treatments at decreasing risk of catastrophic wildfire?
- What are the odds of fire happening in the precise areas that are being treated?

- What are the actual risks associated with such a fire on water quality?
- Given that this will still be a fire prone environment, and the treatment won't necessarily prevent a severe wildfire, the Forest Service & The Dalles still need to prepare for a fire/sedimentation event. What, besides the proposed project, is being planned to address this issue?

Environmental Impacts of logging for "fuels-reduction"

The scoping notice does not discuss whether there is an upper-diameter or age limit on the trees to be logged in this project. Most fire ecologists agree that removal of large, old trees is not ecologically justified and does not reduce fire risks. Such trees contribute to the resistance and resilience of the forest ecosystems of which they are a part. Large, old trees of fire-resistant species are the ones most likely to survive a wildfire and subsequently serve as biological legacies and seed sources for ecosystem recovery. They also are exceptionally important as wildlife habitat, before and after a wildfire event, and as sources of the large snags and logs that are critical components of terrestrial and aquatic habitats. For all practical purposes, they are impossible to replace. (DellaSala, et.al, 2006, internal citations omitted).

Indeed, as this project is planned under the auspices of the Healthy Forest Restoration Act (§102(e)(2)), the Forest Service must follow the Act's command:

> The Secretary shall fully maintain, or contribute toward the restoration of, the structure and composition of old growth stands according to the pre-fire suppression old growth condition characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health, and retaining large trees contributing to old growth structure.

Congress specifically intended for HFRA projects to retain existing older forest structure that existed prior to fire suppression, and Bark strongly suggests that the Forest Service establish an upper-diameter or age limit on logging, to ensure removal only of trees that are actual fuel hazards.

In addition, all mechanized fuel treatments cause collateral damage to ecosystem components, including soils, aquatics, and vegetation; they also have the potential to spread exotic plants and pathogens. Even if such treatments do reduce fire severity, the ecological cost of those treatments may outweigh any positive effects. In most cases, the negative effects of treatments will cover a substantially greater area than that for which fire severity might be reduced—if, that is, fire does in fact occur. ***Bark is unconvinced that the***

guaranteed detrimental impacts to the watershed from logging are outweighed by the potential future impacts of a possible fire.

Also, the scoping notice does not mention anything about roads. Are there any roads being built or re-aligned for this projects? Skid-roads? Landings? Including even speculative information about this in scoping notices is pertinent to better inform the public's response.

Questions:

- How do the environmental impacts of landscape-scale commercial logging compare with the potential impacts of a possible fire?
- Will the project have an upper-diameter limit? If trees over 7" are included in the thinning prescription, what is the ecological justification?
- How will this project be funded? Is any of the funding for this project dependent on commercial logging in the project area?

Post-Project Management

Fire policies that stress logging as a remedial measure for reducing fire intensity may actually increase the rate of fire spread because most logging operations leave behind combustible slash. (DellaSala, et. al, 2006). The Watershed Analysis observed that piling slash does not reduce the fine fuel loading as well as broadcast burning. (WA, 32).

Questions:

- What is the Forest Service's plan for managing post-logging slash? What guarantee is there that it will all be "cleaned" up?
- How will the Forest Service follow up with the project area in the future? As prescribed burning is likely to happen at a time of year when all fuels won't burn off, what guarantee is there that follow up treatments will take place?

Long-term Fuels Management

The Forest Service recently completed Phase I of this project, logging a fuel break around the perimeter of the Municipal Watershed boundary. Now, as Phase II is poised to commence, Bark is concerned that the Forest Service is too focused on thinning more forest at the expense of monitoring and maintaining the Phase I project area.

Forest ecologists note that fire and fuel management programs require repeated treatments and should be viewed as a continuing process and commitment rather than a single management event. A single fuel treatment such as prescribed burning and thinning cannot resolve fuel and fire issues over the long run and may actually lead to an increase in fuels that require prompt follow-up treatments. (DellaSala, et al, 2006).

Many large-scale fuelbreak systems have failed over time due to the high costs of maintaining them. One of the institutional reasons for neglecting fuelbreak maintenance relates to the fact that once commodity timber outputs have been extracted from a site, there are few sources of revenue that would provide financial incentives for managers to return to those sites. Instead, fuelbreak maintenance is almost entirely a cost borne from limited (and shrinking) appropriation budgets. (Ingalsbee, 2005, internal citations omitted). The repeated, long-term nature of maintaining fuels-reduction projects and re-introducing fire needs to be recognized in policy and budgets, and Bark is concerned that the Forest Service has not adequately secured long-term funding for maintaining Phase I and Phase II.

Questions:

- What are the Forest Service's long-term plans for managing the perimeter fuel break created in Phase I *and* the new project area proposed for Phase II?
- What will ensure adequate funding for long-term management of Phase I and Phase II areas to ensure that fire resiliency is maintained?

Exceptions to Mt. Hood LRMP Standards

The Scoping notice notes that several guidelines in the Mt. Hood Land & Resource Management Plan (LRMP) will not be met by this project, yet does not indicate why. Regarding the standards relating to organic matter (FW-033), down wood material (FW-219) and snags (FW-215), Bark is curious as to why these will not be met. Is it because there are already too little down woody material and/or snags in the project area, or is it because this project would effectively rake the ground clear of "fuel", and fell more wildlife trees than otherwise allowed? If the answer to the latter question is yes, Bark is very concerned that this project will excessively remove essential wildlife habitat and nutrients from the forest and requests a thorough discussion of the reasons behind, and impacts of, such action.

Research Natural Area

The project area overlaps the Mill Creek Research Natural Area (RNA). The purpose of the RNA is to preserve examples of natural ecosystems in an unmodified condition for research and education and to provide areas to serve as a baseline against which human impacts on natural systems can be measured. The LRMP directs that prescribed fire may occur in the RNA, but prohibits other fuels treatment, unless *required* to provide protection to adjacent non-RNA acreage. (LRMP at 4-150, emphasis added). Bark believes that the RNA should be left untouched to the greatest degree possible to allow it to meet its purpose as an "unmodified" natural ecosystem.

Questions:

- Is the Phase II management plan for the RNA limited to prescribed fire?
- If not, how has the Forest Service determined that other fuels reduction in the RNA is required to protect the adjacent acres?

Pine Marten Habitat Area

Part of the project area is designated Pine Marten Habitat Area. In this designation, crown closure shall be at least 50% within commercial thinning activity areas, and at least 24 snags greater than 20 inches diameter shall be maintained within the 160 acres of mature/old growth pine marten habitat. Additionally, at least 6 down logs per acre shall me maintained, of at least 20 inches in diameter and 20 feet in length. LRMP at 4-243, 245.

The scoping notice stated that part of the project area will have the canopy thinned down to 40%, and also noted that it would be violating the Forest Plan's required 6 down logs per acre. It is unclear if either of these proposed exceptions would apply in the Pine Marten Habitat Area. Bark hopes not, and suggests that the Forest Service follow all applicable guidelines to protect pine marten habitat.

Incorporate Bark's Strategic Screens from Phase I

During the planning of Phase I, Bark and the Pacific Biodiversity Institute crafted a "Strategic Wildfire Protection Plan for the South Fork Mill Creek Watershed." This document suggested several "screens" that the Forest Service apply to ensure ecosystem protection while facilitating the shift toward a more fire resilient forest.

These screens include:

- No new roads, temporary or otherwise, to be constructed or reconstructed
- No removal of downed woody debris or material over 8 inches in diameter
- 80% of trees removed should be less than 50 years old, and no trees over 80 years old should be removed
- Protection of all large diameter snags, except in extraordinary circumstances
- Buffers for riparian areas (150 feet for perennial non-fish bearing and 300 feet for fish bearing streams), including wetlands and seeps
- No entry into Late Successional Reserves

We request that you incorporate these screens into the project planning area. If at any time the Forest Service deviates from these screens, please provide a full explanation of why the deviation is necessary to protect ecosystem services.

General Project Suggestions:

Include an action alternative that does not include commercial logging. Bark has almost universally seen Forest Service "restoration" projects that include commercial logging be driven by values other than truly restoring ecosystem health. As noted earlier, the trees that are most commercially valuable are the very same trees that provide the best habitat and are the most fire resilient. We strongly advocate for an alternative that does not include commercial logging, and is wholly focused on science-based fire restoration.

Use adaptive management and monitoring to assess management success of Phase I before taking new action

Adaptability and accountability require that a high funding priority be given to monitoring programs that compare expected outcomes with objective measures of results. To that end, before moving forward with Phase II, the Forest Service should engage in extensive monitoring of Phase I and incorporate that information into the planning of Phase II. Please ensure adequate funding – not tied to commercial extraction – for ongoing ecosystem restoration and long-term fire resiliency in the watershed.

Conclusion

We recognize that at a fundamental level, fire and fuels management cannot simply be about lowering fuel loads; it must contribute to the long-term restoration of sustainable, dynamic ecosystems within the context of

approaches to restoring ecological integrity. Bark encourages a Forest Service fire policy that emphasizes restoring and maintaining ecological integrity and fire resiliency, with an understanding of, and appreciation for, all forces that shape nature, and an honest assessment of the agencies' present and future budgetary and personnel capabilities.

Sincerely,

Brenna Bell, Esq.
NEPA Coordinator

References:

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Graham, R.T., McCaffrey, S., Jain, T.B. (tech. eds.), 2004. Science basis for changing forest structure to modify wildfire behavior and severity. *USFS Rocky Mountain Research Station Gen. Tech. Rep. RMRS-GTR-120.*

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Veblen, T.T., 2003. Key Issues in Fire Regime Research for Fuels Management and Ecological Restoration, *USDA Forest Service Proceedings, RMRS-P-29.*