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Comments:

Mill Creek "Dry Forest Restoration Project" response:

Allow me to introduce myself, so you have some understanding of my perspective. I have taught forest ecology at a University level since 1970 and have been on the ground in all of the National Forests in this region. I have done extensive aerial documentation of forest management activities, so I have a landscape perspective. I was also involved in the Hungry Bob portion of the Nationwide Fire and Fire Surrogates study done in the 1970's, both doing on the ground and aerial documentation.

Given the proximity of this project activity to the boundary of the Mill Creek Wilderness, it would have been extremely helpful to have the wilderness boundary clearly delineated on your maps. It has required considerable effort to determine the relationships between your proposed activities and the wilderness area and even with that effort a possible understanding has been hard to reach!! In my view, it is fundamentally important not to create a sharp edge in the ecosystem at the wilderness boundary. As nearly as I can determine, that kind of appropriate transition zone has not been included in your planning and needs to be. Future planning documents need to more understandably show the relationship of your planned activities to the clearly delineated boundary of the Mill Creek Wilderness. Finally, your planned changes to the landscape need to honor the integrity of the visual experiences possible when people are within the Mill Creek Wilderness area.

Your mapping also does not show streams adequately as well as permit identification of Riparian Habitat Conservation Areas. This makes it impossible to evaluate the likely impacts of the activities that you are indicating on your maps.

In my view the scientific foundation for this project is quite marginal. You have not adequately understood and incorporated the insights provided by several papers in the scientific literature by Baker and his co-authors (Baker and Ehle, 2003; Baker, W.L., 2015; Baker, WL 2017; plus Baker and Williams, 2018). The essential insights this work documents, include the variability in fire return intervals in the area of Ochoco National Forest. The longer fire return intervals that these papers document, indicate that you are using an incorrect fire paradigm. The fire intervals - recognized in the above mentioned scientific analyses - of up to 80 years are consistent with at least some areas of high severity fire. I trust you realize that mid and high severity fires provide important snag habitat for many species and are an important feature of historic natural ecosystems. That is a significant failure of the plan that I see.

While you refer to the impacts of past grazing practices, how you will manage grazing in this management area, given that grazing has a major impact on fire behavior in eastside forest ecosystems? I have personally witnessed a failure of ground vegetation to carry fire during a controlled burn done in a grazed area that was part of the Hungry Bob portion of the Nationwide Fire and Fire Surrogates study done in the 1970's. Grazing needs to be an explicit part of your management plan, not just logging. I am also concerned about the impacts of grazing on stream vegetation and hydrology. I do not see adequate consideration of this likely significant factor in the current condition of the areas of Riparian Habitat Conservation Areas you are working to "restore". How do you relate grazing impacts to the presence of incised stream channels?

In your proposed logging of mixed conifer stands, I am concerned that you will be inappropriately impacting the shade and large tree features of the Riparian Habitat Conservation Areas. Large trees in these areas are ecologically significant, even if they are not Ponderosa Pines. They not only provide shade but such trees will ultimately contribute large woody material needed for stream ecology.

On page 2 of your main document, you incorrectly assert that Douglas-fir is a (fire intolerant species). Large Douglas-fir trees have outstanding fire resistance with their very thick bark. In my experience, Douglas-fir is at least as fire resistant as Ponderosa Pine. It is also generally unclear whether you intend to be logging Douglas-fir or for that matter Grand Fir trees that are over 21 inches DBH in your stated desire to create an open, park-like tree distribution of Ponderosa Pine over the landscape. Clearly logging such larger fir trees is an inappropriate restoration activity. Diversity of tree species is important, creating a monoculture - even if it is of Ponderosa Pine on the east side - is not appropriate. Furthermore, please remember, natural forests do have clumps of trees that increase the probability for a local area of high intensity fire. Such local areas of high intensity fire would produce needed snags that are consistent with natural ecosystem integrity at a landscape scale. Some areas capable of supporting high intensity fire need to be left on the landscape. It is a fundamental misunderstanding of eastside fire ecology to think in terms of only frequent low intensity fire across the whole landscape. It is procrustean and inappropriate to try to force this area into that paradigm.

I have not had the chance to personally scope the area of this proposed project. However, I am concerned that you are forcing a classic open Ponderosa Pine image onto areas of mixed conifer forest that should be left where they have developed in ecologically appropriate portions of this very large "restoration" project.

When you use the term "commercial thinning" does that only involve removing trees significantly smaller than 21 inches DBH ? Your document does not make that clear. It is essential that no larger trees be logged, or is this plan just a Trojan Horse for more logging - timber output? Also, have you strategically allowed for smaller younger trees to become replacements for the larger old-growth trees? That is not clear from your document. What is the timber volume that is projected to be produced by this plan, and what are the size classes ? In other words, is this just another plan to implement timber output - - a timber sale under a different name?

Given the impact of roads on hydrology, introduction of invasive species, and wildlife, the available information on road construction, use, and closures leaves me concerned about these impacts from your project. Rehabilitation of a road is a slow and difficult process in dryer ecosystems.

Remember also that the large tree component of any forest performs the significantly important function of carbon sequestration. Logging large trees unfortunately results in significant additional carbon dioxide input to the atmosphere. This nation's National Forests offer a unique opportunity to perform the essential function of carbon sequestration. This feature of your activities needs appropriate analysis and influence on your planning.

Thank for your attention to these aspects of your planning process. I will be interested in seeing a more appropriately detailed plan for a project of this scope and significance.

References:

Baker WL (2015) Are High-Severity Fires Burning at Much Higher Rates Recently than Historically in Dry-Forest Landscapes of the Western USA? PLoS ONE 10(9): e0136147. doi:10.1371/ journal.pone.0136147

Baker and Williams, (2018) <https://doi.org/10.1002/eap.1688>