From:	Rachel Freifelder
То:	FS-objections-pnw-mthood
Subject:	Objection to Draft Decision, ZZIRP
Date:	Monday, November 9, 2020 2:18:27 PM

Rachel Freifelder



November 9, 2020

To: Richard Periman, Forest Supervisor & Objection Reviewing Officer Mt. Hood National Forest 16400 Champion Way Sandy, OR 97055

Submitted via email to: objections-pnw-mthood@fs.fed.us

In accordance with 36 CFR §218, I hereby object to the Environmental Assessment ("EA") and draft Decision Notice for the Zigzag Integrated Resource Project.

Responsible Official: Richard Periman, Forest Supervisor, Mt. Hood National Forest

Objection Period End Date: November 9, 2020. *Location:* Sandy River Watershed and Salmon River Watershed, Zigzag Ranger District, Mt. Hood National Forest

Objector's Interests & Participation:

As a resident of Portland since 2005, I rely on the forests of Mount Hood for clean air, drinking water, carbon storage and spiritual renewal. I have spent a great deal of time in the project area, both since the initiation of the project and before. I visit the forest to hike, reflect, collect edible mushrooms, and experience peace and quiet, and also to survey proposed project areas. The Old Maid Flat area is of particular personal interest to me because of its unique ecological qualities and because it is easily accessible.

As a citizen scientist with university training in forest ecology, fire science and climate science (MA, Stanford University 1993) I have surveyed 13 units of the project.

In June and July of 2020, I surveyed units 108, 109, 114, 182 and 330 in the Mud Creek project area, and units 64, 65 and 68 in the Horseshoe area. During the fall of 2019 I surveyed Units 4, 6, 18 and 20 in the Horseshoe area and Unit 180 in the Mud Creek area, which I described extensively in my comments submitted on the scoping letter and Preliminary Environmental Assessment.

Requested Relief:

In recognition that the proposed action has significant adverse ecological impacts, and violates law, regulation and policy, Objector requests that the Forest Service resolve this objection as follows:

-provide detailed information about and analysis of impacts of the proposed action on the ecological health of latesuccessional stands and riparian reserves, especially their soils, needed to ensure informed decision making

-preserve late successional stands

-further develop PDCs to address all the risks identified in the Botany Specialist Report regarding loss of forest structure and biodiversity

-further develop PDCs to address risks associated with soil disturbance on steep slopes

-further develop PDCs to address risks to water quality as a recreational value that supports the tourist economy

-provide the public with full citations for all science referred to in the PA and Draft Decision

-conduct field surveys of waterways reported by commenters

-select an alternative approach that better meets the project's purpose and need.

I submit this Objection for the following reason:

Failure to take a hard look at impacts of forestry operations on ecological, human and economic values violates NEPA

The National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321 *et seq.*, requires federal agencies to identify and evaluate impacts of "major Federal actions significantly affecting the quality of the human environment." NEPA requires agencies to "take a *hard look* at environmental consequences" of their proposed actions, consider alternatives, and publicly disseminate such information before taking final action. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989) (emphasis added).

1. Impact on old growth

Section **1.3.1.1**, page 5 of the EA states, "There are many stands in the project area that are overcrowded and relatively uniform." and "The desired condition in reserves is a multi-layer canopy with large-diameter trees, a well-developed understory, more than one age class, sufficient shade, and sufficient quantities of snags and down woody debris.

In my comment on the scoping letter, submitted in early 2020, as well as my comment on the ZZIRP PA, submitted August 9, 2020, I noted that in all of the units I surveyed in the Horseshoe portion of the project, the desired condition described above already exists. Logging will not improve the ecological integrity of these stands.

I also noted that all forestry operations, including variable-density thinning operations, typically have significant impact on soils and understory of late successional forests. (There are exceptions such as non-commercial thinning by hand of stands of young trees.) This is based on my own observation of recently logged sites in MHNF, as well as on empirical observations reported in the scientific literature. The impacts include compaction, erosion, destruction of understory species, and injury to leave trees. Impacts of ground equipment are the heaviest, but the dragging of harvested trees in yarding operations and even helicopter logging have significant impacts. Furthermore, the absence of the harvested trees has an impact on moisture and temperature, especially where canopy cover is reduced below 30%.

Furthermore, the Botanist's Report states, (p. 6)

"Commercial thinning will simplify and homogenize forest structure (vertical and horizontal complexity) for a decade to several decades because of the loss of large snags and, if present, downed logs on the forest floor as the thinned stands develop from stem exclusion to understory reinitiation to old growth.

In older stands where understory reinitiation (the creation of canopy gaps resulting from tree mortality) has begun or is ongoing, commercial thinning can simplify and homogenize plant understories by promoting the expansion and dominance of clonal sub-shrubs and ferns: e.g., salal, dwarf Oregon grape, trailing blackberry, sword fern, bracken fern. Clonal species respond well to thinned canopies and can exclude less dominant forbs: e.g., *Achlys, Anemone, Asarum, Chimaphila, Clintonia, Coptis, Cornus, Disporum, Goodyera, Linnaea, Maianthemum, Orthilia, Pyrola, Streptopus, Tiarella, Trillium, Vancouveria, Viola*), thereby reducing understory diversity. Understory simplification and homogenization, a by-product of human intervention, can persist for a decade to several decades as thinned stands gradually develop from understory reinitiation to old growth (older stands). "

These potential impacts were not adequately addressed in the EA. I request a complete ecological analysis of these impacts.

2. Impact on water from soil disturbance on steep slopes

As I stated in my comment on the EA, logging on steep slopes can destabilize soils and lead to significant erosion. Some of the steep slopes I observed are above and in close proximity to waterways, which are therefore at risk of sedimentation.

The Project Design Criteria attempt to address this, stating:

"A8. Bare soils would be covered by slash or other vegetative material or seeded and mulched. The coverage of effective ground cover would be sufficient to prevent off-site movement of soils as guided by Forest Plan standard and guideline FW-025 and by Forest Service Handbook 2509 (R6 supplement). "

However, my observations during post-logging monitoring of other timber sales show that thinning operations often have a high impact on forest soils. Forestry operations of any kind typically involve operation of vehicles and disturbance of soils. In addition, roots of live trees perform the ecosystem function of stabilizing slopes, and when trees are removed, steep slopes

often slide. Mulching, or seeding with grass and forbs, is inadequate to perform that function on steep slopes of 70% or more. Logging on these steep slopes is likely to cause destabilization and erosion from which that portion of the forest may not recover. Furthermore, that erosion is likely to contribute significant sediment and turbidity to the Clear Fork of the Zigzag River.

Furthermore, PDC J9 states:

"J9. Helicopter logging would occur in Units 102 and 182 to minimize negative impacts to scenery where visible from identified focus areas."

This does not address the fact that removal of large trees of commercial size removes the slope stabilization that those trees provide.

Several of the PDCs state that operations will be "• Limited to dry season (generally June 1 – October 15)"

These are the dates most likely to be dry in our climate, compared to the rest of the year. However, it is common in our region to receive heavy rains in June, September and October, and not unheard of in July and August.

The PDCs are not adequate to protect steep slopes and the waterways below them.

I asked in my comments for an explanation of what steps will be taken to protect aquatic habitats below the units from sediment. I requested that all units directly above lakes and streams be dropped from the project. I further requested an alternative that increases riparian buffers of any perennial waterways to an extent that protects water quality from sedimentation, and that you provide current hydrologic science that confirms that these buffers are adequate. The discussion of water quality in the hydrologists' report is extensive, but as concerns erosion and sedimentation the only statement is that "Amounts of erosion and sediment delivery are expected to be small due to maintaining protective ground cover along with implementation of Best Management Practices (BMP) or Project Design Criteria (PDC) as they are referred to in this document." The hydrologist does not cite supporting evidence for the effectiveness of this approach.

Under NEPA, planners are required to address concerns raised by commenters. The EA did not adequately address these potential impacts nor these important questions, and I request a thorough analysis that includes medium term effects of the absence of large tree roots holding the slope.

3. Impact on tourism and the local economy

As I stated in both my comments, tourism in MHNF is essential to the local economy, and one recreational value that is critical to tourism is the clear water found in our lakes and streams. Logging steep slopes above lakes and streams damages this recreational value. In particular, there is a risk to the clear waters of Trillium Lake, which bring international tourism in the summer.

The Draft Decision states that "most of the recreational benefit to the local economy is via downhill ski area use". This disregards the very large numbers of summer visitors to our area. The economic concern is not adequately addressed in either the EA or the Draft Decision.

4. Increased risk of fire to communities on the Highway 26 corridor.

As I noted in my comment on the scoping letter, current science shows that logging operations typically increase the probability and intensity of fire through drying of the local microclimate and through slash piles. My own research (1) showed that thinning of the canopy contributes directly to the spread and intensity of fire via increased wind speed. Furthermore, several years post thinning, a forest often shows an abundance of highly flammable conifer seedlings in the understory.

The Draft Decision notes that "large intense stand-replacing wildfire is not unexpected and is considered the natural fire regime for much of the west side of the Forest. In fact, much of the west side of the Forest burned with high intensity in the early 1900s." This is certainly the case. The document further notes that "the purpose and need of the Zigzag Integrated Resource Project is not related to fuels reduction or curbing wildfire". Indeed, this project does not name fuels reduction as a primary part of its Purpose and Need. However, ZZIRP Information Sheet page 6 states that one purpose is "to break up the contiguity of fuels and to reduce the intensity of fire in the event of wildfire."

More importantly, NEPA requires project planners to consider impacts on the human environment. In light of the recent wildfires, any potential to _increase_ the risk of fire in the wildland-urban interface should be seriously studied before moving

forward with a project. In addition to risk to human communities, fighting wildfires incurs significant expense to FS as well as risk to FS staff. Some units of the project are less than 5 miles from human habitations along Lolo Pass Rd.

The concern that I raised has not been adequately addressed in the EA. I request a complete analysis of the potential risks from increase in frequency and intensity of fire in the WUI that could result from the project.

5. Deficient public process

In my comment on the EA, I noted that the public process has been rushed and the information provided to the public has been vague and incomplete. Project planners must provide complete information about what is planned, the decision-making process and the science supporting it.

I requested that you provide full scientific citations for every assertion made, as would be required of a submission to a peerreviewed scientific journal, so that the public can fully understand the source of every assumption going into the proposal and decisions.

In particular, the EA contains many predictions of future events that are not clearly supported, both in the primary document and in the specialists' reports. If modeling is used to make those predictions, provide a reference to the model as well as all assumptions and numerical inputs used in the modeling process. This is provided in some places in the specialists' reports but is missing in other places.

The EA also contains assertions about current conditions that are in conflict with what I observed in the units I surveyed. I requested details of the field survey techniques used to arrive at these assertions, and in units that have not been field surveyed, a comprehensive field survey of all project areas.

These requests for information have not been addressed.

Furthermore, the Draft Decision states that intermittent streams, seeps and other waterways reported by commenters will not be added to maps until surveyed by FS staff. Therefore, no further decision or action should be taken before such field surveys are complete.

For these reasons, I believe this project:

- Fails to take a "hard look" at its potential impacts as required by NEPA and would cause significant harm to the natural environment, the human environment and the local economy if it proceeds as planned.
- Fails to meet its Purpose and Need regarding developing late successional character in the forest, increasing diversity and gaining greater variability of vertical and horizontal stand structure
- · Failed to consider reasonable alternative actions presented by the public

I would welcome a productive pre-decisional objection resolution meeting with MHNF staff. If you have any clarifying questions about this objection, please don't hesitate to contact me.

Thank you,

Rachel Freifelder

Literature cited:

(1) Freifelder, R., P.M. Vitousek, and C.M. D'Antonio. Microclimate change and effect on fire following forest-grass conversion in a seasonally dry tropical woodland. Biotropica 30 : 286–297, 1998 See attachment: abstract and first page of article.

Rachel Freifelder <u>Handmade Ga</u>rdens - Edible and Native Organic Land Care/Food Education www.handmadegardenspdx.com