Data Submitted (UTC 11): 7/18/2022 12:00:00 PM
First name: Steve
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Organization:
Title:
Comments: Please accept the attached PDF as my submitted comments for the 2020 Fire Affected Road System Risk Reduction EA (#61749). Thank you.

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Text of attached letter:

Please consider these comments for the 2020 Fire Affected Road System Risk Reduction (#61749) EA:

1. NEPA Adequacy

The Mount Hood National Forest has similar project also due to 2020 wildfires but has produced far more comprehensive documentation for their EA: (see table in attachment).

The discrepancy in the number of pages written isn't as important as the implication that the Forest Service is following a pattern of addressing required NEPA elements in a surficial manner. The output on these topics is far less than found in previous EAs that the Willamette NF has produced and is also less than what the Bureau of Land Management produces in support of their EAs. There is a distinct lack of maps informing the relationship between variables at play. The topic of roads is the cornerstone of controversy for this project and the Willamette National Forest hasn't even prepared a transportation specialist report.

Other data & information that the Forest Service has is not being leveraged to inform the analysis. For example, the Forest Service has a record of Red Tree Vole presence from previous Survey & Manage efforts but there appears to be no effort to use this resource. While the Forest Service maintains that they needn't do any new RTV surveys, why aren't those previous site protection buffers being considered? I will provide details later in my submitted comments but there are five RTV protection buffers that intersect proposed project segments. Those areas are still habitat and any work done would have an adverse impact. This is simply an insufficient effort on the part of the Forest Service.

2. Fire Break / Service Road Justification

For the roads that have been identified for treatment and subsequently justified for inclusion due to its use as a fire break or service road, what has been the maintenance history by the Forest Service for that road? If no maintenance has been previously performed along that route, how can the Forest Service now claim that route is needed for that purpose and must be maintained for such use now? If it wasn't important enough to maintain it in the past, it can't be that important now.

3. Red Tree Voles

In the EA on page 10, it states that "[hellip]Impacts to Northern Spotted Owls including their prey species and habitat needs to be considered" and yet only about one paragraph in the Wildlife section discusses RTVs. On page 74, it states that "[hellip]Falling hazard trees is not considered a habitat disturbing activity for the Survey and Manage species." How can this be? RTVs spend their entire life cycle above the ground, in the trees. Even if a tree is "dying", it is still legitimate habitat and cutting down those trees is a direct impact on RTVs (and NSOs by proxy). The Forest Service's Wildlife Database contains records of RTVs from previous Survey & Manage efforts and yet the FS does not even appear to be considering their presence, especially with some

identified road segments where the RTV protected area still appears to be living forest: (see table in attachment).

4. Green House Gas (GHG) Emissions

Page 27 states that there will be no impact at the regional or local level. From Hoover & Smith (2021)1 we know that west side Oregon forests sequester 128.6 tons of Carbon per hectare (roughly 52 tons / acre); We also know from Smith et al (2006)2 and Gower et al (2006)3 that logging releases approximately 46% of the carbon stored in standing trees. Given the thousands of acres of potential treatment, the release of stored carbon cannot be considered "minor" at the local or regional level. 4,450 acres of potential treatment would release of 106,444 tons of carbon back into the atmosphere. Furthermore, there is anywhere from a 14 year4 to a 20 year5 lag time for new trees to transition from a net negative carbon sequestration to positive carbon sequestration. The IPCC may not believe that this project's actions are a major source of GHG emissions but Talberth (2017)6 found that forestry emissions were the leading source of GHG emissions in Oregon.

5. NSO Habitat Loss

Page 67 refers to an exercise of determining what suitable habitat had been lost due to the 2020 fires but no supporting evidence or documentation is provided. How was this determination made? Have subsequent surveys been performed to document the presumed loss? In recent years, Derek Lee has published articles in 20187 and again in 20208 on the topic of Spotted Owls and wildfire response. In both articles, Lee found that that mixed-severity fire (including large patches of high-severity fire) were not an immediate threat to Spotted Owl populations. This project may well be authorizing the removal of quality habitat trees in stands where their removal would be far more significant due to the overestimation of burn severity.

Where are these areas of habitat loss, and how do they overlay/align with the proposed road segments? Again, satellite imagery is being relied on for identifying areas for proposed treatment but DellaSala & Hansen (2015)9 have shown that RAVG data has been shown to overestimate the burn severity of what has been encountered on the ground.

6. Burn Severity Data as Project Foundation

Since the public is prohibited from accessing these areas, the only means available to "ground truth" the information provided to us is from remote sensing data. I compared the proposed road segments against three Sentinel-2 satellite images- one pre-fire image (8/25/2020), and two post-fire images (9/24/2021 and 6/21/2022) to review the stand health in the vicinity of the road segments. I used bands 11 (shortwave infrared), 8 (visible / near infrared), and 4 (red) in order to highlight vegetation status. Bare ground / burnt areas will appear as brown / pink while living vegetation will appear as green / bright green (snow appears as cyan/blue). The Forest Service has made sensible reductions in the project's scope from the initial project to the revised scoping and now to the EA. That being said, there still are further reductions that can be made. To illustrate this, the following proposed project segments show no signs of "stand replacing" fire impacts. The proposed road segments from the EA maps are shown in light blue and a yellow 250 foot buffer has been added to provide context for the areas that might receive treatment: (see figures in attachment).

7. Project Segment Lengths

While reviewing the roads included for proposed treatment, I am struck by the number of road segments that have been included in this project proposal that are incredibly short in length. There are 11 project segments less than 100 feet in length and 9 segments between 100-200 feet in length. I do not know if these project segments are simply editing mistakes on the part of your geospatial team or if they have been legitimately included but I feel that there should be a minimum road length threshold for inclusion into the project. I can't image any realistic benefit for including these short segments so I would urge the Forest Service to remove the following segments:

(see table in attachment).

Thank you, Stephen Cole

References Cited in these Scoping Comments:

1. Hoover, C.M., Smith, J.E. Current aboveground live tree carbon stocks and annual net change in forests of conterminous United States. Carbon Balance Manage 16, 17 (2021). https://doi.org/10.1186/s13021-021- 00179-2

2. Smith, James & Heath, Linda & Skog, Kenneth & Birdsey, Richard. (2006). Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States. USDA General Technical Report NE-343. 2006. (223p) https://www.fs.usda.gov/treesearch/pubs/22954

3. Gower, S.T., A. McKeon-Ruediger, A. Reitter, M. Bradley, D. Refkin, T. Tollefson, F.J. Souba, Jr., A. Taup, L. Embury-Williams, S. Schiavone, J. Weinbauer, A.C. Janetos, and R. Jarvis. 2006. Following the Paper Trail: The Impact of Magazine and Dimensional Lumber Production on Greenhouse Gas Emissions. Washington, D.C.: The H. John Heinz III Center for Science, Economics and the Environment. (Not Available Online)

4. Turner, D.P., Guzy, M., Lefsky, M.A., Ritts, W.D., Van Tuyl, S., Law, B.E. Monitoring Forest Carbon Sequestration with Remote Sensing and Carbon Cycle Modeling. Environmental Management Vol. 33, No. 4, pp. 457-466 (2004). http://www.cof.orst.edu/cof/fs/turner/pdfs/turner_env_man_2004.pdf

5. Suchanek, T.H., Mooney, H.A., Franklin, J.F., Gucinski, H., and Ustin, S.L. 2004. "Carbon Dynamics of an Oldgrowth Forest." Ecosystems. 7: 421-426 https://www.researchgate.net/publication/273319184_Carbon_Dynamics_of_an_Old-growth_Forest

6. Talberth, J. (2017). Oregon Forest Carbon Policy: Scientific and technical brief to guide legislative intervention (1.0). https://www.sustainable-economy.org/wp-content/uploads/2017/12/Oregon-ForestCarbon-Policy-Technical-Brief-1.0.pdf

7. Lee, Derek E. 2018. Spotted Owls and forest fire: a systematic review and meta-analysis of the evidence. Ecosphere 9:e02354. https://doi.org/10.1002/ecs2.3310

8. Lee, Derek E. 2020. Spotted Owls and forest fire: Reply. Ecosphere 11: e03310. https://doi.org/10.1002/ecs2.3310

9. DellaSala, D.A., and C.T. Hanson. 2015. The ecological importance of mixed-severity fires: nature's phoenix. Elsevier, UK. (pg 326-328)