January 16, 2019

Nikki Swanson, District Ranger
c/o Joanie Schmidgall
Willamette National Forest – Sweet Home Ranger District
4431 Highway 20
Sweet Home, OR 97386

Re: Calapooia Draft Environmental Assessment

Dear District Ranger Swanson,

WildEarth Guardians respectfully submits these comments to the U.S. Forest Service in response to the agency's Draft Environmental Assessment (Draft EA) for the Calapooia project. The project, located across a 6,706 acre area, aims to "contribute a predictable, sustainable supply of timber and other forest products to local and regional economies; enhance forest health, vigor, species diversity and structural complexity; to identify a minimum road system; and to ensure public safety and protection of water quality and natural resources" (Department of Agriculture, Forest Service, Willamette National Forest, Calapooia Draft Environmental Assessment, December 2018 [Calapooia Draft EA]). The project is located 30 miles southeast of Sweet Home, Oregon in the Upper Calapooia 5th field watershed. Please add our name and organization to the contact list to receive any future public notices regarding this project and please use standard mail (not certified) if sending items via the Postal Service.

We are encouraged to see the Willamette National Forest state that one of the purposes of the project is to "identify a minimum roads system" (Calapooia Draft EA, p. 18). We are pleased to see the use of the 2015 Willamette National Forest Road Investment Strategy and to see some activities identified that could move the forest further towards achieving that roads objective namely:

- Decommissioning and hydrologically stabilizing 5 miles of unneeded system roads that are currently not driveable and pose high risk to aquatic resources
- Installation or replacement of 51 culverts
- Maintaining 51 miles of needed roads (Calapooia Draft EA, p. 7)

Additional project activities listed in the Draft EA include:

- 706 acres commercially thinned, 289 acres retained as skips, and 109 acres harvested as gaps
- 3 miles of temporary road constructed (1 mile "new" and 2 miles reconstructed non-system roads)
- gate for permanent installation on Forest Service Road 2820
- a "day-use only" corridor proposed along 1.5 miles of the Calapooia River (Calapooia Draft EA, p. 7)

We know others have expertise in the proposed logging components of this project so we are particularly interested in the road-related components that address water quality, aquatic habitat,

improve watersheds and ensures forest resiliency in a changing climate. An overly large, costly and deteriorating road system is a key contributing factor to many of these problems. Yet many people, like us and our members, use roads to access recreational areas. Reducing the road system, reducing impacts from the road system and retaining access are not mutually exclusive goals. We believe it is possible to improve watershed conditions while also improving access, but it takes thoughtful planning, clear communication and true commitment to achieve these results on the ground.

As you move forward to the decision phase of the project analysis, we wish to call attention to a few items:

1. **Re-consider what additional project actions are needed to meet one of the project purposes of identifying a minimum road system.**

We are pleased to see the effort made by the project team to address roads. The Calapooia Draft EA outlined impacts to aquatics and wildlife from the road system, used information from previous roads analysis (like the Road Investment Strategy), included recent field information, used the Watershed Erosion Prediction Project (WEPP) to compare differences between modeled sediment yields from roads and seemed to identify reasonable actions from this information. We appreciate the incorporation of this information and the effort made to move towards a more sustainable road system in this watershed.

We do question whether, upon project completion, the resulting 64 miles of system roads (69 miles currently, with a proposal to decommission 5 miles- (Calapooia Draft EA, p.18)) and unknown miles of non-system roads actually meet the standards for a minimum road system. The Roads Rule states that the minimum road system should:

- "meet resource and other management objectives adopted in the relevant land and resource management plan";
- "meet applicable statutory and regulatory requirements";
- "reflect long-term funding expectations"; and
- "ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance." 36 C.F.R. §212.5(b)(1).

With respect to "minimizing adverse environmental impacts" we'd expect to see this project eliminate or reduce the impacts to fish and wildlife that truly do result in a measurable change. Given the importance of the Calapooia River to Upper Willamette River (UWR) Winter Steelhead and UWR Spring Chinook salmon which are both listed as threatened under the Endangered Species Act, and given that the river is currently listed as impaired for temperature under section 303(d) of the Clean Water Act, it is of upmost importance that project actions result in change. We recognize that there are multiple actions, that if properly implemented, may lead to benefits for aquatics. These actions include better road maintenance, hydrologically disconnecting drainages, replacing culverts and decommissioning roads. The Road Investment Strategy should have identified the roads with high aquatic risks across the forest and so we would expect that those risks be reduced with the actions in this project area, but we could not find a list of roads, their associated aquatic risks, and then what action is reducing the risk. We are left having to trust that the entire portfolio of road-related actions will be implemented, on the right roads, at the right place to then have the desired outcome of reduced aquatic risks. Another way to ensure that the desired outcome is achieved is through monitoring. We would suggest the Willamette National Forest incorporate adequate monitoring in this project.

An often overlooked component of the minimum road system is that it should "reflect long-term funding expectations". At the end of this project, there will be 64 miles of system roads in this area and perhaps many more miles of non-system roads discovered. In 2015, the average funding level for road maintenance in the Willamette National Forest was $1.48M for the forests' 6,550 miles of road, when the average need was $5.86M (Willamette National Forest, Road Investment Strategy, 2015). Four years ago, the budget only covered 25% of the basic road maintenance need which did not even begin to address deferred maintenance. At the end of this project, there will be a 7% reduction in the road system in this area. Will that truly be enough for the forest to meet "long-term funding expectations"?

We would like to reiterate that we are pleased to see the use of the Road Investment Strategy, the inclusion of the Minimum Road System as a purpose of the project and the various road treatments which all seem to lean towards improvements on the ground. In particular, decommissioning 5 miles of road (assuming it's done correctly) should be a net positive as demonstrated by previous studies:

- **hydrologic recovery is speedier.** Lloyd et. al. (2013)[1] discovered that when a road is recountoured and the surface is adequately treated, rainwater infiltrates quicker than when a road is simply abandoned. (Above ground recovery is about the same but below ground is very different.) Kolka & Smidt (2004)[2] also discovered that there is less erosion/runoff on treated roads.
- **reduced sediment delivery to streams.** Nelson et. al. (2012)[3] compared sediment delivery rates on decommissioned roads and stormproofed roads. After storms, the decommissioned roads had 80% less sediment delivery while stormproofed roads had 67% less sediment delivery.
- **results in higher watershed condition scores.** An Aquatic Conservation Strategy analysis completed in 2006 showed that the watersheds that had condition scores that increased the most were the ones that had the most extensive road decommissioning.
- **increased wildlife benefit**. Extensive studies show that wildlife (particularly elk, bear, lynx) avoid roads. Switalski et. al. (2011)[4] published a study showing that black bears are going to areas where roads were decommissioned in significantly higher numbers than areas where roads were simply closed (with gates or barriers).

Given these significant benefits from road decommissioning, the stated purpose of this project and the economic liability of an overly large road system, we ask that the project team take a second look at the roads in the project area in case there are more opportunities for decommissioning. In addition, the other road actions, should be evaluated to ensure that they are sufficient to achieve the desired outcomes.

2. **The Forest should not construct temporary roads. If avoidance is impossible, a minimal amount of roads should be used and the roads should be immediately reclaimed after use.**

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[1] Influence of road reclamation techniques on forest ecosystem recovery. Lloyd, Rebecca A., Kathleen A. Lohse and TPA Ferre. Frontiers in Ecology and the Environment. March 2013.

[2] Kolka, R., and M. Smidt. 2004. Effects of forest road amelioration techniques on soil bulk density, surface runoff, sediment transport, soil moisture and seedling growth. Forest Ecology and Management 202: 313–323.

[3] Nelson, N., T. Black, C. Luce, and R. Cissel. 2012. Legacy Roads and Trails Monitoring Project Update. US Forest Service, Rocky Mountain Research Station, Boise, ID. 5 p.

[4] Switalski, T.A. and C.R. Nelson. 2011. Efficacy of road removal for restoring wildlife habitat: black bear in the Northern Rocky Mountains, USA. Biological Conservation 144: 2666-2673.

We encourage the Forest to take a hard look at the proposed temporary roads (3 miles) in order to be certain that they are needed. Though we understand that USFS policy states that road beds be restored to natural condition after the project, there is still an impact when temporary roads are developed. In addition to their hydrologic impact, roads fragment habitat, disturb wildife, support more noxious weeds and increase fire danger. Additionally, if they are not properly rehabilitated post-project, they can invite illegal incursions and more damage to natural resources. The map indicates that most of the temporary roads are short segments, thus if avoidance is impossible, then we expect the Forest Service will ensure that these segments are restored as soon as the project activities are completed. In addition, we ask that the segments are re-vegetated, entrances blocked, and areas monitored with enforcement actions taken to ensure proper closure.

3. **We support the proposed activities that are intended to benefit aquatic resources and suggest that monitoring and enforcement be incorporated.**

As described in the Draft EA, the Calapooia River is important for the four Management Indicator Species (MIS) fish species that occur in this project area: Upper Willamette River (UWR) Winter Steelhead, UWR Spring Chinook, Coastal Cutthroat trout, and resident Rainbow trout with Chinook salmon and steelhead spawning in the river and in United States Creek (Calapooia Draft EA, p. 89). With this native, wild population of steelhead still accessing these spawning grounds, it is vitally important to protect this "core genetic stronghold" in order to provide any slimmer of chance for recovery of the species.

Because of the dire state that these fish are in, we support the actions proposed that are developed to protect important habitat namely:

- Replacing 51 culverts – assuming that the 6 fish passage barriers would be addressed (is this correct?) – reducing risk of fill failure and sediment delivery by 850 cubic yards [a dump truck carries 10-14 cubic yards, so this is equivalent to 61-85 dumptrucks] (Calapooia Draft EA, p. 86)
- Decommissioning 5 miles of road – assuming soils are immediately stabilized and replanted
- Stabilizing and maintaining 51 miles of roads – presumably reducing current sediment yield of 276 cubic yards/year for the action area (a dump truck carries 10-14 cubic yards, so this is equivalent to 20-28 dumptrucks)
- Using haul roads during the dry season only
- Initiating a "day use only" corridor along Calapooia River

All of these actions, when implemented, should have positive benefits to aquatics. However those benefits only translate if the projects are completed, if they are implemented correctly and if additional damage is immediately addressed. This is why we ask that implementation monitoring occur (before/during/after to ensure these activities happen) and some effectiveness monitoring occur (to make changes, if the treatment wasn't sufficient). Enforcement is also critical, for example on a decommissioned road to ensure that recently planted native vegetation has the opportunity to grow. And enforcement is especially critical for ensuring the Calapooia River corridor can effectively be transitioned to a "day use" only area.

4. **In addition to the items above, we ask that you consider the following:**

- As noted multiple times in the Draft EA, this area is vitally important to recovery of threatened steelhead and spring Chinook. Logging 42 stands across the landscape could further jeopardize these species, no matter how well-intended and planned.
- It is concerning that the benefit to cost ratio is only 1.16 (Calapooia Draft EA, p. 155). Some slight change in cost or market value could easily turn this project into a net loss. Not only does that question the value of this effort, but it also puts at risk the vitally important restoration and protection work that needs to be funded here.
- There are some very specific soil-related concerns outlined in the Draft EA and in Appendix D. "Several units have existing and/or potential transportation concerns that would occur with the implementation of project activity, and are discussed in Appendix D" (Draft EA, p.69). These concerns should be further evaluated, highlighted in any contract, and Forest Service staff should ensure that these concerns are addressed.
- We appreciate the table of roads in Appendix D but it would be more informative to include the aquatic risks, as an additional column, in this table.
- There are studies, which show that sediment from vehicles driving on roads can have measurable negative impacts to aquatics. This was not evaluated in the Draft EA.

Conclusion

As conservationists and visitors to the Willamette National Forest, we use the roads and trails but also recognize the harm that aging and unmaintained roads cause. The Forest Service's current road system is oversized for current uses, unaffordable with current budgets and causing significant harm to wildlife and aquatic species. In addition, unmaintained roads are impacting access when storms destroy roads. A road system that it too large for current budgets can lead to unplanned road closures, often to key recreational destinations, because of lack of road maintenance. Identifying the minimum road system in a watershed and then implementing road-related actions to improve fish passage and reduce sediment are an important step in moving towards a road network that is causing less harm.

This endeavor to identify and manage a sustainable road network is one of the most important efforts the Forest Service can undertake to restore aquatic systems and wildlife habitat, facilitate adaptation to climate change, ensure reliable recreational and community access, and lower operating expenses. The actions proposed and decided upon will chart the direction of this watershed for several decades thus we strongly encourage you to do this well.

If you have questions, please contact me.
Sincerely,

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