



July 23, 2025

Ashley Popham
Barlow Ranger District
780 NE Court Street
Dufur, OR 97021

In Reply To: Hootnanny Insect and Disease Scoping

Dear Ms. Popham:

American Forest Resource Council (AFRC) is a regional trade association whose purpose is to advocate for sustained yield timber harvests on public timberlands throughout the West to enhance forest health and resistance to fire, insects, and disease. We do this by promoting active management to attain productive public forests, protect adjoining private forests, and assure community stability. We work to improve federal and state laws, regulations, policies and decisions regarding access to and management of public forest lands and protection of all forest lands. AFRC represents over 50 forest product businesses and forest landowners throughout the West. Many of our members have their operations in communities adjacent to the Barlow Ranger District, and the management on these lands ultimately dictates not only the viability of their businesses, but also the economic health of the communities themselves. The state of Oregon's forest sector employs approximately 61,000 Oregonians, with AFRC's membership directly and indirectly constituting a large percentage of those jobs. Rural communities, such as the ones affected by this project, are particularly sensitive to the forest product sector in that more than 50% of all manufacturing jobs are in wood manufacturing.

AFRC is pleased to see the Barlow Ranger District proposing vegetation management on lands designated as Matrix and Riparian Reserve that will likely provide useful timber products to our membership by utilizing the authorities under Section 603 of the Healthy Forest Restoration Act to streamline the analysis of the project. Our members depend on a predictable and economical supply of timber products off Forest Service land to run their businesses and to provide useful wood products to the American public. A timber supply that is managed in accordance with the

principles of sustained yield are also critical to our membership as long-term timber supply is equally important as near-term timber supply. Lands designated as Matrix are the only lands on the Forest where sustained-yield timber management can occur and it is imperative to AFRC that the Barlow Ranger District recognize this and design vegetation management project accordingly. Although the primary purpose of this project does not directly address sustained-yield timber management, the treatments designed to increase forest resiliency by harvesting commercial timber products, if implemented correctly, will help maintain a viable forest ecosystem capable of growing and sustaining timber products for future needs.

The treatments on the Hootnanny Insect and Disease project will also likely provide short-term products for the local industry and we want to ensure that this provision is an important consideration for the decision maker as the project progresses. As we will discuss later in this letter the importance of our members' ability to harvest and remove these timber products from the timber sales generated off this project is paramount. Supporting local industry and providing useful raw materials to maintain a robust manufacturing sector should be a principal objective to any project proposed on Forest Service land, particularly those lands designated as Matrix.

Spotted Owl

We understand that portions of the project area are overlaid by the critical habitat layer for the northern spotted owl. This CHU designation does not preclude vegetation management treatments that are in line with the Matrix land allocation, and in fact encourages land managers to consider implementation of forest management practices recommended by the Revised Recovery Plan (USDI FWS 2011) to restore ecological process where they have been disrupted or suppressed, and application of ecological forestry management practices within critical habitat to reduce the potential for adverse impacts associated with commercial timber harvest when such harvest is planned within or adjacent to critical habitat.

The Final Critical Habitat Rule recognizes the need and the appropriateness of such treatments throughout the document:

- **We recognize that ecological restoration is not the management goal on all NWFP land use allocations (e.g. matrix) within designated critical habitat, and we provide a discussion of options land managers could consider to tailor traditional forest management activities on these lands to be consistent with conservation of current and future NSO habitat (pg. 27).**
- **On Matrix lands under the NWFP where land managers have a range of management goals, the Service anticipates that not all forest management projects**

in critical habitat will be focused on the development or conservation of northern spotted owl habitat (pg. 283).

- **Targeted variable-retention harvest could be considered where the conservation of complex early seral forest habitat is a management goal (pg. 284).**

Desired conditions in this part of the Forest often necessitate a significant reduction of densities. Achievement of these conditions and forest health objectives is often in conflict with the maintenance of NSO habitat thresholds, namely canopy cover. We are pleased to see that the scoping letter indicates that some density management treatments may be applied to a level that attains desired end results even when those levels may have impacts on the NSO. The long-term wildfire risk reduction benefits, including NSO habitat retention benefits, attained from effective density reduction treatments outweigh any short-term impacts to NSO. To emphasize this point, we would like the Forest Service to consider a study recently released in Animal Conservation that yielded noteworthy conclusions on how certain wildlife species' populations are impacted by wildfire and post-fire timber salvage. The study, titled "Megafire causes the persistent loss of an old-forest species"¹, evaluated post-fire occurrence dynamics of the northern spotted owl (NSO) following the 2014 King Fire in California and expanded on initial short-term impacts reported by the same authors in 2016. **We believe that the conclusions in this paper should be factored into the decision-making process for the Hootnanny project as tradeoffs are considered between fire resiliency and the maintenance of NSO habitat.**

The King Fire, which burnt over 97,000 acres, impacted roughly half of an ongoing NSO study area dating back to the late 1980s. This provided a unique opportunity to use a "before-after" experiment design to assess impacts of the fire to an existing study-population. This experiment initially yielded short-term conclusions for the first year following the fire.² Among other things, that study concluded that "while we used only one year of post-fire data, the substantial decline in occupancy at severely burned sites is unlikely to reflect a temporary loss of individuals that will soon be replaced by colonization, but rather represents a direct loss of suitable nesting and roosting habitat that will likely not be replaced for many decades." This conclusion was met with some criticism that NSOs may simply return to disturbed areas after a brief period of displacement. This year's subsequent publication, which assessed NSO populations for six years after the fire, attempted to address these criticisms based on the authors' hypothesis that because NSOs in California evolved in a frequent, low severity fire regime, they are poorly adapted to persist in conditions following large severe fires.

The researchers assessed populations across several spatial scales and found that NSOs at severely burnt sites (>75% canopy mortality) went locally extinct and did not recolonize those

¹ Jones, G.M., Kramer, H.A., Whitmore, S.A., Berigan, Gutierrez, R.J. & Peery, M.Z. (2021). Megafire causes persistent loss of an old-forest species. *Animal Conservation*. 35, 1199–1213.

² Jones, G.M., et al. (2016). Megafires: an emerging threat to old-forest species. *Front. Ecol. Environ.* 14, 300–306

sites over a 6-year period following the fire. This supports the authors' hypothesis that NSOs are poorly adapted to survive and persist in post-fire landscapes characterized by extensive severe fire. This also supports the early findings reported in 2016 and supports the notion that NSO site abandonment was not ephemeral in nature. These additional 5 years of results prompted the authors to reject the notion that owl territories experiencing large, severe fires may simply show an initial abandonment of sites but return shortly thereafter.

The authors also hypothesized that these negative post-fire owl population dynamics were driven by the fire itself rather than by post fire timber salvage. Therefore, portions of the study area that were salvage logged were included among the covariates in the experiment. Past studies, including a 2020 study by the same authors, were unable to assess fire and salvage effects independently.³ However, this study was able to separate the two effects and "unequivocally determined" that severe fire, and not salvage logging, was correlated with the observed local declines in spotted owl site occupancy, including both persistence and recolonization. Ultimately, the authors rejected the hypothesis that salvage logging drove or even contributed to the observed post-fire decline in NSO populations.

Finally, the authors considered these results in the context of active forest management designed to reduce fire severity in dry-forest ecosystems. They note that while there are abundant empirical observations that demonstrate that density reduction alters fire behavior in dry forests, these treatments often have short-term negative impacts on sensitive wildlife species, including the NSO, by removing key habitat elements, particularly canopy cover. Whether these short-term negative impacts on the NSO are an appropriate tradeoff for positive long-term resilience against high severity fire hinges on whether the NSO is negatively impacted by high severity fire. The conclusions in this study clearly indicate that NSO populations are negatively impacted by high severity fire and suggest that short-term NSO habitat degradation that improves a forest's resiliency to high severity wildfire is a prudent tradeoff for land managers to consider.

Riparian Reserve Management

We are pleased to see the District propose treatments in areas designated as riparian reserve. However, we have concerns regarding the identification of streams that warrant this designation. During our site visit to the project area, we also reviewed a partially prepped timber sale called 'Skull' that is implementing treatments analyzed under the '27 Road' fuel break project. That sale appears to have riparian buffers applied to features that do not contain any waterbody type, including intermittent or ephemeral streams. Specifically, the buffers between Skull units 481 & 48 and between units 501 & 502 appear to contain no sign of waterflow, including scour and

³ Jones, G.M., et al. (2020). Habitat selection by spotted owls after a megafire reflects their adaptation to historical frequent-fire regimes. *Landscape Ecol.* 35, 1199–1213.

deposition. Instead, these areas seem to be the upper headwalls of streams that develop downhill. Many of the proposed Hootnanny units are directly adjacent to Skull units and other units from the 27 Road project. **We urge the Forest Service to take a hard look at some of these mapped waterways to determine whether they actually contain streams that warrant riparian reserve protection.**

It has been well documented that thinning in riparian areas accelerates the stand's trajectory to produce large conifer trees and has minimal effect on stream temperature with adequate buffers. Removal of suppressed trees has an insignificant short-term effect on down wood, and ultimately a positive effect on long-term creation of large down woody debris and large in stream wood, which is what provides the real benefit to wildlife and stream health. We encourage the Forest Service to focus their riparian reserve treatments on a variety of native habitats. The ACS describes the need for treatments that meet the need of multiple habitat types and we encourage the Barlow District to look for ways to incorporate treatments that meet those needs. Utilization of gap cuts to promote early seral habitat in the reserves, treatments to diversify all areas of the reserve, and prescriptions that account for the full range of objectives that the ACS mandates should be considered.

The tradeoffs that the Forest Service will likely be considering through the ensuing planning process will be between achieving these forest health benefits and potentially having adverse impacts to streams. These impacts to streams typically include stream temperature, wood recruitment, and sedimentation associated with active management. We would like the Forest Service to review the literature cited below and incorporate its findings into your planning that will shape the level of management permitted to occur in riparian reserves.

Stream temperature

Janisch, Jack E, Wondzell, Steven M., Ehinger, William J. 2012. Headwater stream temperature: Interpreting response after logging, with and without riparian buffers, Washington, USA. *Forest Ecology and Management*, 270, 302-313.

Key points of the Janisch paper include:

- The amount of canopy cover retained in the riparian buffer was not a strong explanatory variable to stream temperature.
- Very small headwater streams may be fundamentally different than many larger streams because factors other than shade from the overstory tree canopy can have sufficient influence on stream temperature.

Anderson P.D., Larson D.J., Chan, S.S. 2007 Riparian Buffer and Density Management Influences on Microclimate of Young Headwater Forests of Western Oregon. *Forest Science*, 53(2):254-269.

Key points of the Anderson paper include:

- With no-harvest buffers of 15 meters (49 feet), maximum air temperature above stream centers was less than one-degree Celsius greater than for unthinned stands.

Riparian reserve gaps

Warren, Dana R., Keeton, William S., Bechtold, Heather A., Rosi-Marshall, Emma J. 2013. Comparing streambed light availability and canopy cover in streams with old-growth versus early-mature riparian forests in western Oregon. *Aquatic Sciences* 75:547-558.

Key points of the Warren paper include:

- Canopy gaps were particularly important in creating variable light within and between reaches.
- Reaches with complex old growth riparian forests had frequent canopy gaps which led to greater stream light availability compared to adjacent reaches with simpler second-growth riparian forests.

Wood Recruitment

Burton, Julia I., Olson, Deanna H., and Puettmann, Klaus J. 2016. Effects of riparian buffer width on wood loading in headwater streams after repeated forest thinning. *Forest Ecology and Management*. 372 (2016) 247-257.

Key points of the Burton paper include:

- Wood volume in early stages of decay was higher in stream reaches with a narrow 6-meter buffer than in stream reaches with larger 15- and 70-meter buffers and in unthinned reference units.
- 82% of sourced wood in early stages of decay originated from within 15 meters of streams.

Sedimentation

Rashin, E., C. Clishe, A. Loch and J. Bell. 2006. Effectiveness of timber harvest practices for controlling sediment related water quality impacts. *Journal of the American Water Resources Association*. Paper No. 01162

Key points of the Rashin paper include:

- Vegetated buffers that are greater than 33 feet in width have been shown to be effective at trapping and storing sediment.

Dry Forests

Messier, Michael S., Shatford, Jeff P.A., and Hibbs, David E. 2011. Fire Exclusion effects on riparian forest dynamics in southwestern Oregon. *Forest Ecology and Management*. 264 (2012) 60-71.

Key points of the Messier paper include:

- Fire exclusion has altered the structure, composition, and successional trajectory of riparian forests in fire-prone landscapes.

- Fire exclusion has been associated with increase in tree density and recruitment of shade-tolerant species that may replace large diameter, more decay-resistant Douglas-fir trees.
- A hands-off management regime for these riparian forests will have ecologically undesirable consequences.

Collectively, we believe that this literature suggests that there exists a declining rate of returns for “protective” measures such as no-cut buffers beyond 30-40 feet. Resource values such as thermal regulation and coarse wood recruitment begin to diminish in scale as no-cut buffers become much larger. We believe that the benefits in forest health achieved through density management will greatly outweigh the potential minor tradeoffs in stream temperature and wood recruitment, based on this scientific literature. We urge the Forest Service to establish no-cut buffers along streams no larger than 40 feet and maximize forest health outcomes beyond this buffer.

Operations

The timber products provided by the Forest Service are crucial to the health of our membership. Without the raw material sold by the Forest Service these mills would be unable to produce the amount of wood products that the citizens of this country demand. Without this material our members would also be unable to run their mills at capacities that keep their employees working, which is crucial to the health of the communities that they operate in. These benefits can only be realized if the Forest Service sells their timber products through sales that are economically viable. This viability is tied to both the volume and type of timber products sold and the manner in which these products are permitted to be delivered from the forest to the mills. There are many ways to design a timber sale that allows a purchaser the ability to deliver logs to their mill in an efficient manner while also adhering to the necessary practices that are designed to protect the environmental resources present on Forest Service forestland.

The primary issues affecting the ability of our members to feasibly deliver logs to their mills are firm operating restrictions. As stated above, we understand that the Forest Service must take necessary precautions to protect their resources; however, we believe that in many cases there are conditions that exist on the ground that are not in step with many of the restrictions described in Forest Service EA's and contracts (i.e. dry conditions during wet season, wet conditions during dry season). We would like the Forest Service to shift their methods for protecting resources from that of firm prescriptive restrictions to one that focuses on descriptive end-results; in other words, describe what you would like the end result to be rather than prescribing how to get there. There are a variety of operators that work in the Barlow market area with a variety of skills and equipment. Developing a contract that firmly describes how any given unit shall be logged may inherently limit the abilities of certain operators. For example, restricting certain

types of ground-based equipment rather than describing what condition the soils should be at the end of the contract period unnecessarily limits the ability of certain operators to complete a sale in an appropriate manner with the proper and cautious use of their equipment. To address this issue we would like to see flexibility in the CE and contract to allow a variety of equipment to the sale areas. We feel that there are several ways to properly harvest any piece of ground, and certain restrictive language can limit some potential operators. Though some of the proposal area is planned for cable harvest, there are opportunities to use certain ground equipment such as fellerbunchers and processors in the units to make cable yarding more efficient. Allowing the use of processors and fellerbunchers throughout these units can greatly increase its economic viability, and in some cases decrease disturbance by decreasing the amount of cable corridors, reduce damage to the residual stand and provide a more even distribution of woody debris following harvest.

We are pleased to see the scoping notice recognize the potential use of tethered-assist equipment. Cable yarding on steep slopes with low volume per acre on the eastside is extremely expensive and often results in sales going no-bid. Allowing tethered equipment expands the opportunities for operators to yard material in an economically feasible manner. Furthermore, tethered assist operations are typically safer as fewer workers are exposed to common logging hazards. However, we caution the District regarding the project design features on page 3 of Appendix C related to tethered-assist operations and offer the following questions/requests:

- Why is the Forest limiting tethered-assist equipment to 60% slope? Consider using flexible language in place of a firm restriction.
- The requirement to operate on a slash map will likely be difficult given the low volume per acre of timber removed. This requirement will significantly limit the operator pool from using their equipment.
- Why is the Forest limiting tethered-assist equipment to the dry season? Operations on snow and frozen ground often yield desirable end results. Consider using flexible language where this equipment could be used outside of the dry season as conditions permit.

Constructing forest roads is essential if active management is desired, and we are pleased that the Forest Service is proposing the roads that are needed to access and treat as much as the project area as possible in an economically feasible way. Proper road design and layout should pose little to no negative impacts on water quality or slope stability. Consistent and steady operation time throughout the year is important for our members not only to supply a steady source of timber for their mills, but also to keep their employees working. These two values are intangible and hard to quantify as dollar figures in a graph or table, but they are important factors to consider.

As stated above, the units proposed in the Hootnanny project are directly adjacent to units proposed in the 27 Road project. We urge the Forest Service to consider logical implementation of these two projects. Despite being analyzed in separate NEPA documents, implementation may be preferable in a single timber sale or stewardship contract to avoid confusion between multiple contracts with overlapping contract areas. Furthermore, feasible and logical logging systems may be complicated with separate timber sale contracts. **Since the 27 Road project was using a CE based on preset fuel break distances, its unit boundaries are arbitrary and not based on logical unit delineation features. In some cases, a more logical unit delineation boundary may result in individual units containing acres analyzed in both CEs.**

AFRC is happy to be involved in the planning and decision-making process for the Hootnanny Insect and Disease CE. Should you have any questions regarding the above comments, please contact me at 541-525-6113 or ageissler@amforest.org.

Sincerely,



Andy Geissler
Federal Timber Program Director
American Forest Resource Council