

May 30, 2018

Joanie Schmidgall

Sweet Home District Planner

4431 Highway 20

Sweet Home, OR 97386

**In Reply To:** Calapooia Scoping

Dear Ms. Schmidgall:

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 Sweet Home 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 76,000 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 glad to see the Sweet Home Ranger District proposing vegetation management on their Adaptive Management Area (AMA), and Riparian Reserve lands that will likely provide useful timber products to our membership. 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. In recent years the Willamette National Forest has been the leader in proposing and implementing diverse silvicultural treatments that move beyond the one-dimensional practice of exclusive thinning that has dominated the Forest Service’s forest management paradigm over the past twenty years. This includes various forms of regeneration harvest in the Matrix land allocation that place an emphasis on the Forest Service’s requirement to manage its timber resources in a sustainable manner. AFRC has clamored for many years that the past management regime of exclusive thinning is ultimately unsustainable in the Douglas-fir forests present on the Willamette National Forest. Implementing they types of sustainable forestry treatments discussed above starts with how the Forest Service frames each individual vegetation management project. In recent years it has been a struggle to convince the Forest Service that sustainable timber management is both a worthy goal aligned with the agency’s mission and a goal that is in the public interest. **We are glad to see the Sweet Home Ranger District recognize and highlight the provision of a sustainable supply of timber in the Calapooia project scoping notice as part of the Purpose & Need.**

The treatments on the Calapooia 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. We would like the Forest Service to recognize this importance by **adding economic viability & support to the local infrastructure to the purpose and need** of the Calapooia project. 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, but also on land designated as AMA, which are also present in the Calapooia planning area.

The consideration of active management on every acre of appropriate land, regardless of its land allocation, is important to our membership as each year’s timber sale program is a function of the treatment of aggregate forested stands across the landscape. Based on the scoping notice, it appears that the District is proposing treatment on approximately 17% of the project area. This percentage is typical of many Forest Service vegetation management projects and although AFRC would like to see the agency treat a higher proportion of the landscape, we understand the multiple directives and land management restrictions in place that make doing so difficult. Given the relatively small scale at which this project is proposed to be implemented on, we urge the District to look for ways to maximize treatment where it **is** proposed and to avoid deferring units or setting aside portions of units for what is often referred to as “skips” **(please consider the fact that 5,574 acres of the project area will essentially be “skipped”).** Skips within the watershed are plentiful, what is not plentiful are openings—the scoping notice recognizes the fact that ***“there are currently no stands in the early seral stage.”*** If the District truly wants to diversify the landscape, then it should focus on creating openings in the forest and minimizing untreated areas within the 1,132 acres of proposed treatment. The scoping notice indicates that gaps and dominant tree release will be considered. We recommend utilizing this treatment type on all three of the land allocations where management is proposed (AMA & riparian reserve). The size of these cuts will have to be tailored to each land allocation, but we believe that they can be used to meet objectives for each of these three allocations. On AMA land, large patch cuts could be implemented to provide early seral habitat (an objective exclusive to Matrix land), provide timber products (also exclusive to Matrix land), and diversify the vegetation type on the landscape. On Riparian reserve land, small and medium sized patch cuts can be implemented to provide species and structural diversity at the stand level in otherwise uniform plantations of primarily Douglas-fir.

**Ultimately, we believe that the District should develop an alternative that goes one step further toward meeting the stated Purpose & Need by proposing regeneration harvest treatments in addition to the gap cuts and DTRs.** An alternative with regeneration harvest would better meet the Purpose of sustainable timber supply management as it would diversify the age-class distribution of the project area and create more opportunities for future timber sales than an alternative that only implements gap cuts and DTRs. An alternative with regen-harvest would also maximize the attainment of the Purpose of enhancing species diversity and structural complexity. As mentioned earlier, the seral stage that is least represented in the project area is early seral. So, if the goal of the project is to diversify species and structure wouldn’t an alternative that maximizes the creation of the least-represented seral stage excel at this goal?

We also urge the District to consider a range of thinning intensities when developing prescriptions to create diversity across the landscape and to provide additional timber products where appropriate. We recommend the District review the following PNW paper if you have not already:

Garman, Steven L.; Cissel, John H.; Mayo, James H. 2003. Accelerating Development of Late-Successional Conditions in Young Managed Douglas-fir Stands: A Simulation Study. Gen. Tech. Rep. PNW-GTR-557. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

This study suggests that heavy thinning promoted rapid development of large boles, vertical diversity, and tree-species diversity, but required artificial creation of dead wood. Treatments that retained more than 40 percent of the overstory delayed attainment of late-successional conditions by 10 to 30 years but resulted in higher levels of most late-successional attributes at the end of a rotation. We would like the Forest Service to consider these two studies and to weigh these tradeoffs and consider a variety of thinning intensities to achieve desired outcomes. A mixture of heavier treatments that may remove NSO dispersal habitat could accelerate development of late-seral conditions, provide diverse understory species, and result in a higher level of overall diversity within the stands.

We understand that portions of the project area is 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 **(including regeneration harvest**) 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).**

As the second bullet point suggests, is important to note that the **CHU is not defacto LSR**. Nor does the CHU suggest that the entire unit be maintained in some level of spotted owl habitat. These are important distinctions to make and will likely drive the silvicultural prescriptions on the Calapooia stands.

To fully illustrate the range of treatments that are appropriate on lands within the CHU, we encourage you to review a project that was analyzed and implemented by the Roseburg BLM District called ‘Here’s Your Sign’, which was analyzed under the ‘Camus Valley EA’. The BLM analyzed and implemented a variable retention harvest (regeneration harvest) in a 70-year old stand in Matrix lands designated as CHU. We think it’s important to be aware of the full suite of treatments appropriate within this CHU, regardless of whether the Sweet Home District plans to propose such treatments.

<http://www.blm.gov/or/districts/roseburg/plans/files/Heres_Your_Sign_Decision_Document.pdf>

<http://www.blm.gov/or/districts/roseburg/plans/files/Camas_Valley_2011_Harvest_Plan_EA.pdf>

The Camus Valley project also illustrates and validates an important reality about managing within the CHU. And that is that **there is no need or requirement to maintain NSO habitat on any given acre within the NSO CHU**. This fact will be important on the Calapooia project whether the District attempts to do any regeneration harvest or not. We have seen the stand types that exist and believe that the correct treatment on the ground (heavy thinning and/or patch cuts) may require the removal of certain primary constituent elements that are often associated with owl habitat.

In addition to the affects to NSO habitat, this project may also have short-term effects to the NSO (based on the presence of actual owls) due to the assumption that any type of forest management activity, including those that maintain habitat types, will have a negative impact on owls and their prey. This assumption is typically based on a few scientific pieces of literature published over the past decade. We would like the Sweet Home District to consider a recently published study conducted by NCASI when assessing treatment areas and their potential affects to owls:

Larry L. Irwin, Dennis F. Rock, Suzanne C. Rock, Craig Loehle, Paul Van Deusen. 2015. Forest ecosystem restoration: Initial response of spotted owls to partial harvesting

Among other findings, this study concluded that partial-harvest forestry, primarily commercial thinning, has the potential to improve foraging habitats for spotted owls.

AFRC is glad to see that the Forest Service is taking a proactive approach to treating riparian reserves. After visiting several stands proposed for treatment it’s clear that the undesired forest conditions that exist in the uplands also exist in the riparian reserves. These undesired conditions include dense forest stands lacking structure and complexity.

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 affect 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 Sweet Home 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.

It has been documented by many that most of the wood that naturally recruits to streams comes from within the first 65 feet of the stream channel (Murphy and Koski, 1989; McDade et al. 1990.). So if this is where the LWD is coming from then thinning in this region would likely accelerate its creation. We encourage the Forest Service to design riparian thinning treatments on this project in ways that foster positive changes to large wood supplies that would result in measurable changes. One way to accomplish this is to reduce the no-cut buffers. It has also been documented that vegetated buffers that are greater than 33 feet in width have been shown to be effective at trapping and storing sediment (Rashin et al. 2006). Partial cutting down to one or two conifers from intermittent and perennial stream channels would accelerate the recruitment of LWD with minimal impacts to sedimentation and stream temperature. We would like the Forest Service to consider these trade-offs closely in the planning for this project to improve riparian conditions on the maximum amount of these reserves.

We would also like the Forest Service to consider including some of the following pieces of scientific research into their analysis. Much controversy surrounding any type of thinning in riparian reserves has surfaced, and we think the following information would be useful in justifying the kinds of beneficial treatments the Forest Service implements.

*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.

*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.

*(1) Small Functional Wood*

Nearly all wood that falls into stream channels has the capacity to influence habitat and aquatic communities (Dolloff and Warren, 2003). Therefore, smaller woody material that enters stream channels is important to overall channel function because it can store sediment and organic material, contribute nutrients, and provide temporary pool habitat and slow-water refugia. It is important to note, however, that pools formed by smaller wood generally are not as deep or complex as those formed by large wood. In addition, small wood does not persist for long periods of time because it deteriorates quickly and is more likely to be flushed from the system (Naiman *et al*., 2002, Keim *et al*., 2002).

*(2)*

In smaller streams adjacent to previously harvested stands, field surveys indicated that relatively large amounts of existing (in-stream) and potential (standing) small functional wood are present. Field surveys also indicate that the vast majority of the down wood in these areas originated from within 50 feet of the stream channel. This is consistent with findings by Minor (1997), who found that in second-growth coniferous riparian forests, 70-84 percent of the total in-stream wood was recruited from within 15 meters (49 feet) of the channel. In addition, McDade *et al*. (1990) and Welty *et al*. (2002) found that 80 percent and 90 percent, respectively, of the wood loading occurred within 20 meters (66 feet) of the stream channel in coniferous forests.

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

Naiman, R.J., E.V. Balian, K. K. Bartz, R. E. Bilby, and J. J. Latterell. 2002. Dead wood dynamics in stream ecosystems. USDA/BLM PSW-General Technical Report-181

McDade, M. H. Swanson, F. J.; McKee, W. A.; Franklin, J. F.; Van Sickle, J. 1990. **Source distances for coarse woody debris entering small streams in western Oregon and**

**Washington.** Canadian Journal of Forest Research 20: 326-330.

Dolloff, C.A., and M.L. Warren, Jr. 2003. Fish Relationships with Wood in Small Streams. Pages 179-194 in S. V. Gregory, K. L. Boyer, and A. M. Gurnell, Editors. The Ecology and Management of Wood in World Rivers. American Fisheries Society, Symposium 37, Bethesda, Maryland.

Minor, K. P. 1997.  Estimating large woody debris recruitment from adjacent riparian areas.  Master’s thesis, Oregon State University

Welty, J. W., T. Beechie, K. Sullivan, D. M. Hyink, R. E. Bilby, C. Andrus, and G. Pess. 2002. Riparian Aquatic Interaction Simulator (RAIS): a model of riparian forest dynamics for the generation of large woody debris and shade. Forest Ecology and Management 162:299-318

Keim, R.F., A.E. Skaugset, and D.S. Bateman. 2002.  Physical aquatic habitat II, pools and cover affected by large woody debris in three western Oregon streams.  North American Journal of Fisheries Management 22:151-164

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 Sweet Home market area with a variety of skills and equipment. Developing an EA and 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 EA 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.

Constructing forest roads is essential if active management is desired, and we are glad 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. The ability to yard and haul timber in the winter months will often make the difference between a sale selling and not, and we hope that the Sweet Home District is working to accommodate this.

We see in the scoping notice map that several roads are being proposed for decommissioning. AFRC is particularly concerned about an in-tact road system that facilitates the active management on appropriate lands, specifically those lands designated as Matrix or AMA where sustainable timber management is required. Sustainable timber management is unlikely to occur in an economical manner without a quality road system in place. The scoping notice indicates that consideration of roads to be decommissioned include those roads that “are no longer used.” We believe that the Forest Service should not limit their scope to current road use when determining road needs. Future needs are just as important. **We would like the Forest Service to closely consider each road proposed for decommissioning from the perspective of future management needs.** We would also like the ensuing NEPA document to clearly describe why each road proposed for decommissioning has been determined to be unnecessary for future management needs based on the land allocation’s objectives.

AFRC is happy to be involved in the planning, environmental assessment (EA), and decision-making process for the Calapooia EA. Should you have any questions regarding the above comments, please contact me at 541-525-6113 or [ageissler@amforest.org](mailto:ageissler@amforest.org).

Sincerely,

Andy Geissler

Western Oregon Field Forester

American Forest Resource Council