



November 30, 2023

Via Project Website

Theresa Tanner, District Ranger  
Cowlitz Valley Ranger District  
PO Box 670  
Randle, WA 98377

**In Reply to:** Yellow Jacket Revised Draft Environmental Assessment

Dear Ms. Tanner:

The American Forest Resource Council (AFRC) submits the following comments for the Revised Draft Environmental Assessment (EA) for the proposed Yellow Jacket project.

AFRC represents the forest products industry throughout Oregon, Washington, Idaho, Montana, California, and Nevada. AFRC's members include over 50 forest product businesses and forest landowners. AFRC's mission 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 the protection of all forest lands. Many of our members have their operations in communities adjacent to the Gifford Pinchot National Forest (GPNF), and the management of these lands ultimately dictates not only the viability of their businesses but also the economic health of the communities themselves. The forest products sector in Washington State continues to provide around 40,000 direct and about 100,000 indirect jobs. Many of these are found in rural communities like those in East Lewis County and the surrounding areas. In addition to the wages paid, the taxes and other monetary transactions generated by these businesses and family-wage jobs, contribute to the infrastructure and well-being of the local communities. AFRC submits these comments on behalf of its members.

The lack of supply of raw materials to fill manufacturing demands for wood products continues to be an issue in Washington. Several mills have closed in the past few years. Vegetation management projects, both current and future, on the GPNF can help contribute to the wood supply in Washington that many mills depend on to continue the operation and employment of their workforce. The economic activity created through these treatments contributes to the greater community's well-being.

## **Purpose and Need**

AFRC is pleased to see the revised Purpose and Need statement in the EA. As we stated in our Scoping Comments, sustainable commercial timber harvest on the Gifford Pinchot National Forest and neighboring National Forests is critical to the near and long-term success of our members. Our members, their contractors, and their employees rely on the timber output from the GPNF and surrounding lands, including other National Forests. The economic activity created by this work also serves to support local economies and local government services, such as those provided by AFRC members such as Lewis and Skamania Counties. Commercial timber harvest is critical for the vitality of many rural communities around Washington state.

Additionally, much of the non-commercial and non-timber work proposed in the project will benefit from both economically viable and productive commercial timber projects as well as healthy and vibrant local economies. Too often we see Purpose and Need statements where the economic contribution of timber harvest appears to be more of an afterthought or byproduct of the proposed work. However, we would suggest that well-maintained roads supported by timber operations lead to the success of other activities such as huckleberry enhancement, safe and efficient recreational access, and ultimately the ability to accomplish much of the restoration work outlined in these types of proposals.

Because of this strong economic benefit provided by commercial timber management on National Forest lands, we are extremely pleased to see the Cowlitz Valley Ranger District providing clear, affirmative, and strong language in the Purpose and Need statement regarding economic contributions from the Yellow Jacket project.

## **Proposed Actions**

### **Alternative 1 – No Action**

AFRC does not support Alternative 1. As described in the revised EA, no activity would occur under this action. Therefore the 'Needs' identified by the Forest would not be met with this alternative.

### **Alternative 2 – Action Alternative**

AFRC generally supports Alternative 2- the Action Alternative. This alternative will provide the best opportunity for the Forest to meet its intended goals with this proposed project. Specific concerns and/or recommendations are covered in the sections below.

#### **Road Maintenance**

AFRC strongly supports this portion of the proposal. A maintained road system provides safe, efficient access to a variety of Forest users. And proper maintenance minimizes the potential impacts those roads can have on aquatic systems. Proper running surface maintenance (crowning, rolling dips, in-slope, etc.) can help to ensure water is shed from the roadway as quickly as is practical. Ditch and culvert cleaning are critical factors in controlling the flow of surface water coming off the road running surface. These drainage structures can also help to ensure that sediment is not delivered to flowing streams. We would encourage the Forest to consider including the replacement and installation of additional cross drains as needed during this work. Many of these roads have been in place longer than the expected life span of the

corrugated metal culverts often installed during construction. Replacing worn, rusted, or undersized cross drains, especially with plastic culverts, when road maintenance work is being completed can reduce the overall cost. Additionally, modern double-wall plastic culverts have a longer life span and tend to flow water and debris better than equal-sized corrugated metal culverts.

Slope and fill stabilization also is critical and important work to maintaining a safe and effective transportation system while minimizing potential negative impacts to both aquatic and terrestrial habitats. Many of the roads on the Cowlitz Valley Ranger District were built at a time when “side cast” construction was widely accepted on almost all side slopes. Over time this form of construction on steeper slopes, often coupled with buried organic debris near the toe of the fill slope and poor drainage maintenance, has led to numerous “slumps” and failures of the outer roadbed. Stabilizing these side cast slopes coupled with other needed maintenance can increase safety and minimize impacts from potential road failures.

Accomplishing this work will address both economic and ecological goals now and in the future.

### **Quarry Development**

We are encouraged to see the District and Forest including rock quarry development work as part of this proposal. ‘On-Forest’ rock pits and the associated products that can be made from them (pit run, crushed aggregate, etc.) can help to reduce both future maintenance costs as well as costs associated with timber harvest projects. Costs associated with hauling rock long distances have been escalating in recent years and often represent a significant cost in timber sale implementation for our members. Timber sale economic viability often is influenced by the rock source for required and optional road work. Long haul distances from commercial rock sources can lead to economically non-viable timber sales.

AFRC understands the stated reasons for some proposed quarries being removed from the revised EA. However, we would strongly encourage the Forest to consider if any of those quarries may be needed for future road maintenance work. And if so, to consider adding them back into the proposal. Treating these existing quarries for noxious weeds as well as other development work could provide future benefits for the transportation system.

### **Bridge Maintenance**

AFRC supports the proposed bridge maintenance in this project. Bridges are an expensive but critical part of the overall transportation infrastructure. We assume the Forest is conducting annual or bi-annual inspections of the bridges that are currently in service. Most forest landowners in Washington state conduct regular bridge inspections, often coupled with bridge deck cleaning.

Regular inspections can often identify needed maintenance and repair needs before them becoming a large cost.

### **Reroute FR 2801 & Cispus Floodplain Reclamation**

AFRC supports the proposed reroute and decommissioning of the old road prism. This type of work assures continued access to the Forest for a variety of users while addressing the aquatic needs in this area.

### **Travel Management**

An intact road system is critical to the management of Forest Service land, particularly for the provision of timber products. Without an adequate road system, the Forest Service will be unable to offer and sell timber products to the local industry in an economical manner. We strongly encourage the use of Maintenance Level 1 (ML 1) designations over the use of decommissioning. While based on today's access needs some roads may be deemed unnecessary for future needs. However, in a changing regulatory and technology world they may be required for future access. If placed in ML 1 status, we believe the Forest can address aquatic and wildlife needs while not foreclosing on the potential future needs of land managers. We understand that some roads originally proposed for decommissioning were removed from the revised proposal. However, other than roads directly related to the relocation and decommissioning of the FR 7801 Road, we generally do not support decommissioning of roads in the Yellow Jacket project area.

### **Mixed-use roads**

While AFRC generally focuses on timber management activities, in scoping we did support this portion of the proposal as it continues to maintain access for various user groups, including current and future timber management needs. We anticipate the Forest will work closely with Lewis County (an AFRC member) on this portion of the proposal.

### **North Fork Campground Redesign**

AFRC would encourage the Forest to seek opportunities to sell any commercial timber removed as part of this proposal. The sale of commercial timber could potentially provide additional revenues to the Forest to support this infrastructure redevelopment. Thus, it has both recreational and commercial timber economic benefits.

### **Low-Intensity Thinning**

We support this work where appropriate within the project area. The general prescriptions outlined in the EA and Project Design Criteria (PDC) appear consistent with the typical management needs of the Forest. However, we are concerned about the use of 'Low-Intensity Thinning' in older stands located on Matrix lands. In our scoping comments, we highlighted the need for management on Matrix lands, including regeneration harvest. This is needed to provide for long-term sustainability. We are pleased to see the regeneration harvests planned on Matrix Lands. And we realize in the younger stands on Matrix Lands, lower intensity commercial thinning likely is appropriate. But want to ensure that older stands on Matrix lands are being managed in a manner that will provide for future regeneration harvests and timber production.

### **High-Intensity Thinning**

We support this work where appropriate within the project area. The general prescriptions outlined in the EA and Project Design Criteria (PDC) appear consistent with the typical management needs of the Forest. High-intensity thinning is appropriate for older structurally simple stands on LSR allocations. LSR stands nearing age 80 are unlikely to receive multiple treatments before “aging out” of management. Reducing stocking levels to accomplish the goals of accelerating “old-growth” characteristics for these stands is critical for success. We also believe this level of thinning provides an important tool for the GPNF to accomplish the landscape scale mosaic of stand conditions in the project area.

### **Huckleberry Enhancement**

AFRC generally supports this portion of the proposal where commercial timber can be viably produced. We would note that often the commercial-size trees in the areas most suitable for huckleberry enhancement work may be of poor quality. Smaller diameters and the presence of limbs and knots can create challenges to producing quality solid wood products from these trees. As the Forest assembles commercial timber harvest contracts it considers the quality of the timber to be included and ensures adequate quality timber is included to offset any low-quality timber. This can help support economically viable projects.

### **Regeneration Harvest**

AFRC strongly supports the application of regeneration harvest in this proposal. As mentioned above, the long-term sustainability of timber harvest on National Forest lands, particularly on Matrix lands, in western Washington requires that stands be re-initiated. Regeneration harvest is the primary tool to accomplish this work and assure ongoing sustainability into the future. The limited acres proposed for regeneration harvest are a small percentage of the overall proposed treatment acres. And while likely not enough to assure future sustainability at a landscape level, it is a start. We applaud the Forest for undertaking this proposed treatment and fully support maintaining the proposed regeneration footprint. We would encourage the Forest not to reduce the acres proposed for regeneration.

### **Down Wood and Snags**

In our scoping comments, we highlighted our concerns with the creation of down wood and more specifically snags. We continue to recommend that the Forest seek to minimize this work for two reasons. First, it can be expensive to complete, and this cost may create economic viability issues for sales or could reduce funding available for other projects outlined in this proposal. The second reason for minimizing this work is future safety issues. For any LSR stands the Forest expects to conduct a secondary treatment to accomplish late successional goals, a large number of snags scattered through the stands may pose safety risks. Additionally, any roads or trails that pass through these stands may also create safety issues for users of those travelways. It is not clear in the EA and associated documents that this work will account for current and future safety concerns on the Forest. We also urge you to monitor past treatment units to assess the degree of naturally established snags and those created incidentally following timber harvest. Such an assessment could inform the need to artificially create additional snags.

### **Beetree Pond**

Currently, AFRC is not opposed to this portion of the proposal. It is not clear to us if this feature would have existed if the road had not been present. The creation of the proposed “beaver dam analog” seems appropriate for the goals of the project. However, we do encourage the Forest that if this becomes part of a ‘Stewardship’ contract, efforts to minimize the costs associated with the project be considered.

### **Instream Restoration**

AFRC generally supports this work. However, we do have concerns over the use of logs and trees sourced from Matrix lands being used for these projects. Our concerns outlined above in the “Thin and Leave” proposal would also apply to material sourced from Matrix lands for this work. While noble and important work, there appears to be opportunities in non-Matrix and non-AMA lands to source material for this work. We strongly encourage the Forest to seek out logs and trees for this work from LSR and AMA lands.

### **Scenic Vistas**

AFRC supports the removal of this proposal from the original EA. We would concur with Forest staff that this can mostly be accomplished with the prescriptions to be applied in the new proposal.

### **Riparian Reserve Management**

AFRC is very concerned about the proposed ‘No-cut’ buffers on waterbodies as described in Table 4 (page 14) of the Revised EA. The stream buffers as shown in Table 4 appear to work against the desired results of the overall project. The stated ‘Need’ for the project includes “a need to accelerate the development of old-growth forest characteristics within the project area.” Many of the streams located in the project area were not buffered during the previous harvest operation. The proposed wide “no-cut” buffers will limit the ability treat the very area that would provide the greatest benefit for accelerating desired future conditions for the Riparian Reserves.

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 the 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 its riparian reserve treatments on a variety of native habitats. The ACS describes the need for treatments that meet the needs of multiple habitat types, and we encourage the CVRD 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.

These impacts on 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 environmental analysis that will shape the level of management permitted to occur in riparian reserves.

We encourage the Forest to consider more narrow minimum width “no-cut” buffers that allow for the critical treatments needed to attain the project goals within the area of greatest benefit for the various streams and other waterbodies in the project area. The minimum width would allow professional field staff to expand the buffer when needed for localized site protections while still providing the needed flexibility to treat the areas closest to the streams.

### ***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.

### **Additional Literature Addressing Stream Buffers**

D.S. Bateman, R.E. Gresswell, D. Warren, D.P. Hockman-Wert, D.W. Leer, J.T. Light, J.D. Stednick. Fish response to contemporary timber harvest practices in a second-growth forest from the central Coast Range of Oregon. *Forest Ecology and Management*. 411 (2018) 147-152

D.S. Bateman, N.D. Chelgren, R.E. Gresswell, J.B. Dunham, D.P. Hockman-Wert, D. W. Leer, K.D. Bladon. Fish response to successive clearcuts in a second-growth forest from the central Coast range of Oregon *Forest Ecology and Management*. 496 (2021) 119447

Douglas J. Martin, Andrew J. Kroll, Jenny L. Knoth. An evidence-based review of the effectiveness of riparian buffers to maintain stream temperature and stream-associated amphibian populations in the Pacific Northwest of Canada and the United States. *Forest Ecology and Management*. 496 (2021) 119190

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.

### **Additional Comments**

The below comments and information apply to all proposed timber management proposals in the Yellow Jacket project.

### **Carbon Literature**

We would like to encourage the CVRD to consider several documents related to carbon sequestration related to forest management.

McCauley, Lisa A., Robles, Marcos D., Wooley, Travis, Marshall, Robert M., Kretchun, Alec, Gori, David F. 2019. Large-scale forest restoration stabilizes carbon under climate change in Southwest United States. *Ecological Applications*, 0(0), 2019, e01979.

Key points of the McCauley paper include:

- Modeling scenarios showed early decreases in ecosystem carbon due to initial thinning/prescribed fire treatments, but total ecosystem carbon increased by 9–18% when compared to no harvest by the end of the simulation.
- This modeled scenario of increased carbon storage equated to the removal of carbon emissions from 55,000 to 110,000 passenger vehicles per year until the end of the century.
- Results demonstrated that large-scale forest restoration can increase the potential for carbon storage and stability and those benefits could increase as the pace of restoration accelerates.

We believe that this study supports the notion that timber harvest and fuels reduction practices collectively increase the overall carbon sequestration capability of any given acre of forest land and, in the long term, generate net benefits toward climate change mitigation.

Gray, A. N., T. R. Whittier, and M. E. Harmon. 2016. Carbon stocks and accumulation rates in Pacific Northwest forests: role of stand age, plant community, and productivity. *Ecosphere* 7(1):e01224. [10.1002/ecs2.1224](https://doi.org/10.1002/ecs2.1224)

Key points of the Gray paper include:

- Although large trees accumulated C at a faster rate than small trees on an individual basis, their contribution to C accumulation rates was smaller on an area basis, and their importance relative to small trees declined in older stands compared to younger stands.
- Old-growth and large trees are important C stocks, but they play a minor role in additional C accumulation.

We believe that this study supports the notion that, if the role of forests in the fight against climate change is to reduce global greenhouse gasses through maximizing the sequestration of carbon from

atmospheric CO<sub>2</sub>, then increasing the acreage of young, fast-growing small trees is the most prudent management approach.

The Washington State Legislature during the 2020 legislative session passed HB2528 – “Recognizing the contributions of the state's forest products sector as part of the state's global climate response.” This bill codified in RCW 70.235 identifies the forest products industry as a key tool in the states efforts to address atmospheric carbon levels. Sustainable forest management for carbon sequestration coupled with manufactured wood products that store carbon, are outlined as critical aspects of Washington’s greenhouse gas emissions reduction goals. The Yellow Jacket project can play a key role in this work.

Absent the use of commercial thinning, the forest where this proposed action would take place would thin naturally from mortality-inducing natural disturbances and other processes resulting in dead trees that would decay over time, emitting carbon to the atmosphere. Conversely, the wood and fiber removed from the forest in this proposed action would be transferred to the wood products sector for a variety of uses, each of which has different effects on carbon (Skog et al. 2014). Additionally, the regeneration harvests proposed in this project can accelerate carbon flux (the rate at which carbon is sequestered from the atmosphere) further benefiting carbon reduction goals. Carbon can be stored in wood products for a variable length of time, depending on the commodity produced. It can also be burned to produce heat or electrical energy or converted to liquid transportation fuels and chemicals that would otherwise come from fossil fuels. In addition, a substitution effect occurs when wood products are used in place of other products that emit more GHGs in manufacturing, such as concrete and steel (Gustavsson et al. 2006, Lippke et al. 2011, and McKinley et al. 2011). In fact, removing carbon from forests for human use can result in a lower net contribution of GHGs to the atmosphere than if the forest were not managed (McKinley et al. 2011, Bergman et al. 2014, and Skog et al. 2014). The IPCC recognizes wood and fiber as renewable resources that can provide lasting climate-related mitigation benefits that can increase over time with active management (IPCC 2000). Furthermore, by reducing stand density, the proposed action may also reduce the risk of more severe disturbances, such as insect and disease outbreaks and severe wildfires, which may result in lower forest carbon stocks and greater GHG emissions. And finally, as mentioned above, this work is in alignment with the goals put forth by the Washington State Legislature and signed into law by the Governor.

*Gustavsson, L., Madlener, R., Hoen, H.-F., Jungmeier, G., Karjalainen, T., Klöhn, S., ... Spelter, H. (2006). The Role of Wood Material for Greenhouse Gas Mitigation. Mitigation and Adaptation Strategies for Global Change, 11(5–6), 1097–1127.*

*Lippke, B., Oneil, E., Harrison, R., Skog, K., Gustavsson, L., Sathre, R. 2011 Life cycle impacts of forest management and wood utilization on carbon mitigation: knowns and unknowns, Carbon Management, 2:3, 303-333.*

*McKinley, D.C., Ryan, M.G., Birdsey, R.A., Giardina, C.P., Harmon, M.E., Heath, L.S., Houghton, R.A., Jackson, R.B., Morrison, J.F., Murray, B.C., Pataki, D.E., Skog, K.E. 2011. A synthesis of current knowledge on forests and carbon storage in the United States. Ecological Applications. 21(6): 1902-1924.*

*Skog, K.E., McKinley, D.C., Birdsey, R.A., Hines, S.J., Woodall, C.W., Reinhardt, E.D., Vose, J.M. 2014. Chapter 7: Managing Carbon. In: Climate Change and United States Forests, Advances in Global Change Research 57 2014; pp. 151-182.*

### **Additional Project Design Criteria Comments**

We are concerned with the relatively narrow Limited Operating Periods (LOPs) identified in the Project Design Criteria. The narrow windows these create to operate can create significant challenges to the economic viability of projects being offered. Helicopter and cable thinning operations are the most impacted by these. Efforts to minimize these LOPs so that operations on the ground have the greatest number of days available are strongly encouraged by AFRC.

We are pleased to see the Forest include the use of tethered harvesting equipment for this project. As well as the provided flexibility for winter operations. This will be critical for the economic viability of the harvesting projects.

Thank you for the opportunity to comment on this project. We look forward to participating in the further development of this proposal. Should you have any questions regarding the above comments or would like additional information, please contact me at 360-352-3910 or [mcomisky@amforest.org](mailto:mcomisky@amforest.org).

Sincerely,



Matt Comisky

Washington State Manager

American Forest Resource Council