



VIA: <https://www.fs.usda.gov/project/?project=61651>

September 19, 2022

Johanna Kovarik, Paulina District Ranger
3160 NE Third St
Prineville, OR 97754

RE: North Fork Crooked River Project Scoping Comments

Dear Johanna,

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide comments on the North Fork Crooked River Forest Resilience project (NFCR) located on the Paulina Ranger District of the Ochoco National Forest. The planning area encompasses approximately 37,554 acres with commercial and precommercial thinning operations planned on about 9855 acres of forested land.

AFRC is a regional trade association that represents the forest products industry throughout Oregon, Washington, Idaho, Montana, and California. AFRC represents 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 protection of all forest lands. The NFCR project will, if properly implemented, benefit AFRC's members and help ensure a reliable supply of public timber in an area where the commodity is greatly needed.

Purpose & Need – Insect and Disease Mitigation and Adaptation to Climate Change

AFRC is pleased to see the Paulina Ranger District proposing vegetation management on their 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. This supply is important for present day needs but also important for needs in the future. The future need for

timber products hinges on the types of treatments implemented by the Forest Service today. Of particular importance is how those treatments effect the long-term sustainability of the timber resources on Forest Service managed land. AFRC has voiced our concerns many times regarding the long-term sustainability of the timber supply on Forest Service land and how the current management paradigm is affecting this supply. Lands designated as General Forest, and to some extent General Forest Winter Range, are the only lands where our members can depend on a sustainable supply of timber products, as timber outputs on lands designated as reserves are merely a “byproduct.” AFRC requests the Paulina District recognize the critical nature of this supply by including this statement in the purpose and need: **Another need is to sustain local economies, including local forest products industries, by supplying forest products.**

Technical reports from both 2010¹ and 2012² completed for the Forest Service determined, among other things, that:

- The forest products sector helps sustain the social, economic, and ecological benefits of forestry in the United States.
- Product revenues sustain economic benefits that include jobs and income.
- Ecological and social benefits can be supported by timber revenue to landowners that help keep land in forests and by forest treatments that can help maintain ecological functions.
- Wood products fulfill fundamental needs per capita and have remained competitive with alternate means of meeting those needs.
- US lumber production and demand is expected to increase through 2040.

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 General Forest and General Forest Winter Range. As the Forest Service surely knows, the “restoration” treatments that are desired on these public lands cannot be implemented without a healthy forest products industry in place, both to complete the necessary work and to provide payments for the wood products generated to permit the service work to be completed. Please clarify how many acres in the NFCR planning area are actually forested and how many acres are scabland stringers. It is important to maximize the commercial volume removed from the planning area. Due to the location, this area of the Ochoco

¹ Ince, P.J.; Kramp, A.D.; Skog, K.E.; Spelter, H.N.; Wear, D.N. 2011. *U.S. forest products module: a technical document supporting the Forest Service 2010 RPA assessment*. Res. Pap. FPL-RP-662. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 61 p.

² Skog, Kenneth E.; McKeever, David B.; Ince, Peter J.; Howard, James L.; Spelter, Henry N.; Schuler, Albert T. 2012. *Status and Trends for the U.S. Forest Products Sector: A Technical Document Supporting the Forest Service 2010 RPA Assessment*. General Technical Report FPL-GTR-207. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 35 p.

National Forest is already extremely vulnerable to a total absence of interested purchasers for commercial raw materials.

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 Paulina District market area with a variety of skills and equipment. Developing a NEPA document 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 NEPA 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. The NFCR scoping document does not provide any information on proposed logging systems. However, if the proposal area is planned for skyline 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.

The effectiveness of harvesting and yarding low volume per acre on steep slopes is a significant obstacle to implementation. Tethered-assist logging is becoming a more economical, safe, and available method of yarding on steep slopes throughout the region. The weight displacement provided by tethering allows tracked equipment to operate on steep ground with limited soil displacement or compaction. Standard psi levels for that tracked equipment are transferred to the tethering uphill. Other forests in the Region have permitted this equipment to be used on Forest Service thinning stands on slopes up to 70%. AFRC appreciates the inclusion of tethered/traction assist equipment being included in the NEPA document. However, while this equipment provides greatly increased flexibility with regard to logging steeper slopes, it is critical to remember that it is not a less expensive alternative than traditional cable/skyline logging systems. Please reach out to local industry when developing the contract and appraisal documents to ensure that the commercial volume for removal on NFCR is sufficient to create a viable project for implementation.

Green, P. Q., Chung, W., Leshchinsky, B., Belart, F., Sessions, J., Fitzgerald, S. A., Wimer, J. A., Cushing, T., Garland, J. J. (2019). Insight into the productivity, cost and soil impacts of cable-assisted harvester-forwarder thinning in western Oregon. *For. Sci.* 66(1):82–96

Key points of the Green paper include:

- The use of cable assistance can reduce track coverage and reduce shear displacement, and thus likely lessen potential soil impact caused by forestry machines.

Garland, J., F. Belart, R. Crawford, W. Chung, T. Cushing, S. Fitzgerald, P. Green, *et al.* 2019. Safety in steep slope logging operations. *J. Agromedicine* 24(2):138–145.

Key points of the Garland paper include:

- Use of new tethered-assist technology reduces exposure to hazards and reduces workers exposed to the most dangerous work in logging—felling and working on cable operations on steep slopes.

It is critical for the Paulina District to recognize that skyline logging infrastructure is no longer available in eastern Oregon and west central Idaho. The loss of these systems is due to a number of reasons including worker safety, lack of workers, extremely high worker compensation rates, and the **lack of a consistent and stable supply of raw materials for this system** off Forest Service lands in central and eastern Oregon. Please analyze for tethered/traction assist logging systems to be utilized during **spring, summer, and fall months** when appropriate soil conditions are present on the NFCR project. Logging over snow will not be feasible on this project.

Riparian Habitat Conservation Area Management

AFRC fully supports and encourages restorations activities in Riparian Habitat Conservation Areas (RHCAs) as needed to reduce fire intensities and subsequent erosion potential. Improving riparian vegetation to increase or maintain bank stability, enhance and encourage the retention and recruitment of various riparian hardwood and shrub species. Reduction in conifer stand densities should increase water yields as well. A lengthy discussion on riparian area management was held during a field trip to the NFCR planning area with the Ochoco Forest Resource Collaborative (OFRC) and AFRC members. Trent Smith, permittee with the grazing allotment in this area, mentioned that surface waters were continuing to decline in this area to the point where cattle water was becoming a problem during some summers. Mr. Smith felt that part of the surface water decline was due to the dense conifer stocking, including ponderosa pine and Douglas-fir as well as juniper, in the uplands as well as the riparian areas. A suggestion was that the Forest Service utilize some water measuring monitoring techniques to determine flows in the NFCR planning area before and after treatments for a length of time. The intent being to gather some anecdotal and empirical information in the short term. AFRC supports this concept and strongly encourages the District to consider implementation.

Prescribed Fire

AFRC generally supports prescribed fire after commercial and noncommercial thinning activities as a method of reducing residual fuel loads resulting from the various thinning operations. However, there is a **huge** backlog of acres that need various prescribed fire treatments in eastern Oregon, including the Ochoco National Forest, already. How will the Paulina District ensure that prescribed fire treatments are timely on the NFCR project?

Where and under what conditions will “prescribed fire only” be utilized? Areas with mature forests that haven’t had fire in many years often have huge duff buildups that result in overstory mortality.

Carbon/Climate

Please consider the points below from a technical report by the Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon. These points are not exclusive to that region and can be applied to this project area as well.

- Wood harvested from the forest, especially timber used for durable structures, can be reservoirs of long-term carbon storage (Bergman et al. 2014).
- Forests and their products embody a closed-loop system in which emissions associated with harvests and product use are eventually recovered as forests regrow.

- Although products may be retired in solid waste disposal sites, they decompose quite slowly, causing carbon to continue to be stored for many decades.
- Products derived from the harvest of timber from national forests reduce carbon emissions by substituting for more energy-intensive materials including concrete, steel, and plastics.

Please see the graph below from the IPCC (2007) that captures the ability of forests to “stack” carbon sequestration and storage through continual harvests. **Please consider adopting this graph into the NFCR project analysis.**

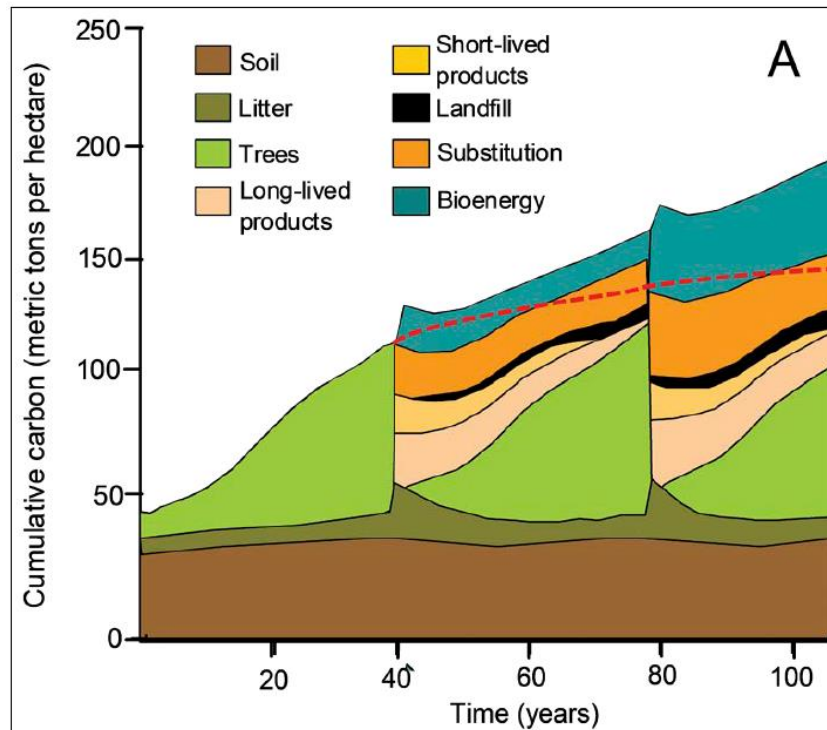


Figure 8.7—Carbon balance from a hypothetical forest management project in which the forest is harvested roughly every 40 years from land that started with low forest carbon stocks. This figure accounts for forest regrowth and carbon stored in wood products in use and landfills as well as the prevented release of fossil fuel carbon (also counted as stored carbon) via product substitution and biomass energy. It illustrates how forests can continue to accrue carbon over time with forest management. Figure is from McKinley et al. (2011) and adapted from IPCC (2007).

We believe that this graph encapsulates the forest management paradigm that would be most effective at maximizing carbon sequestration on a per-acre basis by “stacking” storage in wood products and regrowth of newly planted trees.

We would like to encourage the Paulina District 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

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 gases through maximizing the sequestration of carbon from atmospheric CO₂, then increasing the acreage of young, fast growing small trees is the most prudent management approach.

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.

In the absence 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. These are the natural processes that are currently taking place on NFCR. 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). 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 (Gustavasson 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 a renewable resource 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 outbreak and severe wildfires, which may result in lower forest carbon stocks and greater GHG emissions.

AFRC looks forward to the forward to the implementation of the NFCR project. Please reach out to me if I can be of any assistance to you during the development of this project.

Sincerely,

A handwritten signature in cursive script that reads "Irene K. Jerome".

Irene K. Jerome
AFRC Consultant
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John Day, OR 97845