VIA: https://www.fs.usda.gov/project/?project=58480

April 8, 2024

Stephanie Kerley, Acting Whitman District Ranger
1550 Dewey Ave., Suite A
Baker City, OR 97814

RE: Baker City Watershed Fuels Management Project EA Comments

Dear Ms. Kerley,

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide comments on the Baker City Watershed Fuels Management Project (BCW) draft environmental assessment. BCW is located on the Whitman Ranger District of the Wallowa Whitman National Forest. The planning area encompasses approximately 22,787 acres. This area is very important and popular to the residents of Baker City, local residents within the wildland urban interface (WUI), local ranchers with grazing allotments and AFRC members. It is also critical to the residents of Baker City as it is the municipal watershed.

AFRC is a regional trade association that represents the forest products industry throughout Oregon, Washington, Idaho, Montana, Nevada, 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 Baker Watershed 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

AFRC is extremely pleased to see the Whitman 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.

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This supply is important for present day needs but also important for needs in the future. This future need for timber products hinges on the types of treatments implemented by the Forest Service today. Of particular importance is how those treatments affect 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 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 deeply appreciates the Whitman District's recognition 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 2010[1] and 2012[2] 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 Timber Production Emphasis, Timber/Summer Range, and Wildlife/Timber 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.

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[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.

Further, the majority of the Baker City Watershed project area is within three designated Wildland Urban Interfaces. The Face of the Elkhorns, Auburn Gulch and Black Mountain WUI's, designated within the Baker County Community Wildfire Protection Plan (CWPP) which covers 20,370.10 acres and the Forest Service has an obligation to protect by mitigating the potential for uncharacteristic wildfire through forest management.

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 Whitman 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. Though some of 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 the Baker Watershed project 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 Whitman 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 northeast 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 Baker Watershed project. Logging over snow will not be feasible on this project.

Roads

AFRC is concerned that the Marble Creek Road accessing the BCW will not be improved to a higher standard. Adequate road access is critical for various emergency response vehicles that may need to respond to incidents in the BCW area.

Carbon Literature

AFRC would like to encourage the Whitman District to consider several documents related to carbon sequestration related to forest management. Please consider the points below from a technical report by the Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon.

- 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.

There is scientific support for the practice of regular harvests at an age where tree growth begins to slow, storage of that tree carbon in long-lasting wood products, and proactive reforestation. A failure to do so would hamper that acre's ability to maximize carbon sequestration through the replacement of slow growing large trees with fast growing small trees and the storage of those large trees in long-lasting wood products. Not storing that carbon in wood products also poses the risk of losing the carbon in standing trees from high intensity wildfire, which is becoming increasingly prevalent on public lands in western states. A 2022 study estimated that wildfires in California in 2020 emitted 127 million metric tons of carbon into the atmosphere, making the greenhouse gas emissions from wildfires the second most important source in the state, after transportation.[3] For context, the Forest Service recently disclosed that the agency only "commercially harvests one tenth of one percent of acres within the National Forest System each year. Harvests designed to improve stand health and resilience by reducing forest density or removing trees damaged by insect or disease make up 86 percent of those acres. The remainder are final regeneration harvests that are designed to be followed by

[3] Jerrett, Michael, et al., Up in smoke: California's greenhouse gas reductions could be wiped out by 2020 wildfires. Environmental Pollution, Volume 310, 2022, 119888, ISSN 0269-7491, available at, https://doi.org/10.1016/j.envpol.2022.119888.

reforestation."[4] There is extraordinary opportunity to increase the practice of sustainable forest management on federal lands as an effective tool to sequester carbon.

Harvesting trees and transferring the stored carbon to wood products allows a land manager to "stack" the sequestration potential of that land. For example, assume an objective to maximize carbon sequestration on 100 acres over a 150-year period starting at year zero. Without active management and timber harvest, those trees would grow to 150 years and represent the only carbon sequestered on those 100 acres at the end of the 150-year cycle (assuming they don't burn in a wildfire). Alternatively, the trees could be harvested on a 50-year rotation and stored in wood products. After 150 years, there would be carbon stored in an existing 50-year-old stand, plus carbon stored in wood products from an additional two 50-year-old stands previously harvested. Figure 8.7, below, from the IPCC (2007) illustrates the concept of stacking[5]. **Please consider adopting this graph into the BCW analysis.**

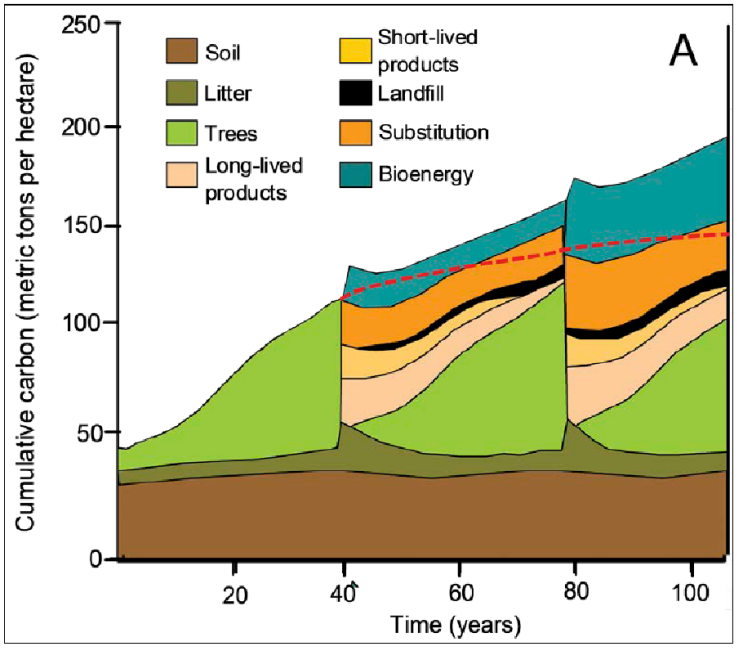

Figure 8.7—Carbon balance from a hypothetical forest management project in which the forest is harvested roughly every 40 years from land that started with low forest carbon stocks. This figure accounts for forest regrowth and carbon stored in wood products in use and landfills as well as the prevented 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).

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. A 2013 study from the Journal of Sustainable Forestry summarized these concepts well: "More CO2 can be sequestered synergistically in the products or wood energy and landscape together than in the unharvested landscape. Harvesting

[4] 88 Fed. Reg. 24,497 (April 21, 2023).
[5] McKinley, Duncan C., et al., A synthesis of current knowledge on forests and carbon storage in the United States, Ecological Applications, 21(6), pp. 1902–1924 (2011)

sustainably at an optimum stand age will sequester more carbon in the combined products, wood energy, and forest than harvesting sustainably at other ages."[6]

AFRC encourages the Whitman District to consider several additional 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 to 18 percent 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 carbon at a faster rate than small trees on an individual basis, their contribution to carbon 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 carbon stocks, but they play a minor role in additional carbon 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

[6] Oliver, Chadwick Dearing, et al., Carbon, Fossil Fuel, and Biodiversity Mitigation With Wood and Forests, Journal of Sustainable Forestry, 33:3, 248-275 (2014), DOI: 10.1080/10549811.2013.839386.

sequestration of carbon from atmospheric CO_2, then increasing the acreage of young, fast growing small trees is the most prudent management approach.

U.S. Department of Agriculture, Forest Service. 2023. Future of America's Forest and Rangelands: Forest Service 2020 Resources Planning Act Assessment. *Gen. Tech. Rep. WO-102*. Washington, DC. 348 p. https://doi.org/10.2737/WO-GTR-102.

To further support the concepts validated by Gray et al., the U.S. Department of Agriculture recently published a Technical Report on the future of the U.S.'s forests and rangelands.

Key points of the Technical Report include:

- The projected decrease in young forests and increase in older forests will result in overall decreases in growth rates and carbon sequestration.
- The amount of carbon sequestered by forests is projected to decline between 2020 and 2070 under all scenarios, with the forest ecosystem projected to be a net source of carbon in 2070.
- Without active management, significant disturbance, and land use change, forests approach a steady state in terms of carbon stock change over time.
- Annual carbon sequestration is projected to decrease, indicating carbon saturation of U.S. forests, due in part to forest aging and senescence.

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.

Conclusion

AFRC fully supports selection and implementation of the activities described in Alternative 2 – Proposed Action. However, without the ability to remove some 21" and greater DBH trees, it will not be possible to adequately meet the purpose and need for this project. AFRC suggests that the Whitman District develop plans that will allow another entry into the project area in the future in the event that removal of 21" DBH trees is not available in the short term due to the ongoing litigation.

AFRC looks forward to the implementation of the BCW project, which is critical for protecting the integrity and quality of the municipal water system for Baker City. Please reach out to me if I can be of any assistance to you during the development of this project.

Sincerely,

Irene K. Jerome
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