



VIA Email: objections-pnwcolville@usda.gov

October 5, 2022

Objection Reviewing Officer
Attn: Objections
765 South Main
Colville, WA 99114

Dear Objections Reviewing Officer:

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide a letter of support for the Chewelah A-Z Stewardship Project which is currently in the Objection Period.

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. Many of our members have their operations in communities within and adjacent to the Colville National Forest and management on these lands ultimately dictates not only the viability of their businesses, but also the economic health of the communities themselves.

AFRC is not writing this letter to object to the Chewelah A-Z Project, rather we think the Proposed Alternative as described in the Draft Decision should be promptly implemented. AFRC provided scoping comments on November 4, 2020, and Draft EA comments on July 25, 2022.

About the Project:

The Chewelah A-Z Stewardship Project encompasses approximately 58,358 acres in Stevens and Pend Oreille Counties. The project is needed to restore forest conditions, reduce hazardous fuels in the wildland-urban interface (WUI), restore aquatic systems, and improve recreational opportunities.

AFRC supported the Purpose and Need for the Project which includes the following objectives:

- Restore existing forest conditions by moving them toward the historical range of variability (HRV)
- Reduce hazardous fuels in the wildland-urban interface (WUI) and compartmentalize the landscape along strategically important road systems and ridgelines.
- Restore aquatic systems to improve function and resilience to disturbance.
- Improve recreational opportunities.

AFRC would like to outline the major reasons for our support along with suggested improvements during implementation.

1. AFRC supports treating 37,656 acres commercially. The Purpose and Need clearly outlines the need for treatments which includes moving the Forest structure toward historical conditions, reduce fire behavior, reduce fuels, improve resilience, and improve safety. Aquatic restoration activities would improve quantity, quality, and resilience of aquatic habitat. This project also includes activities to improve recreational opportunities supporting community recreation goals.

The treatments are listed below:

Table 2.1. Proposed Action summary.

Commercial Vegetation Treatments	Descriptive Code	Acres
Commercial thinning	HTH	12,755
Shelterwood removal with reserves	HSHr	83
Commercial thinning with regeneration harvest	COMBO	24,818
	Total	37,656
Temporary Roads		Miles
Temporary roads		65.1
Understory (Non-Commercial) Vegetation Treatments	Descriptive Code	Acres
Pre-commercial thin	PCT	2,874
Ladder fuel reduction	LFR	38,376
	Total	41,250
Surface Fuels Treatments	Descriptive Code	Acres
Prescribed fire underburning	FUB	6,199
Piling and burning fuels/Lop and scatter	FPB/DEC	35,265
	Total	41,464

2. AFRC contends that one additional important component should have been included in the Purpose and Need, which is the provision of raw materials to support the forest products infrastructure located in and around the Colville National Forest working area. We believe that harvesting timber to create jobs and maintain existing infrastructure should be a stronger part of the Purpose and Need for this Project. AFRC has several members that depend on timber from the Colville National Forest for their resource needs. 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. AFRC members utilize a variety of timber types and sizes. The Chewelah A-Z Project has a diverse group of age classes and timber types that should be managed to provide the variety of raw material needed by AFRC member sawmills. Furthermore, in this diverse landscape there is a considerable amount of work that needs to be completed during and following harvest. This work can only be implemented if there are enough timber receipts from the project to accomplish this work. By putting more timber up for harvest in an economical manner, the Forest will receive more revenue to help accomplish the restoration work as outlined. The National Forests in Washington are very important for providing the raw materials that sawmills within the State need to operate. Specifically, studies in Washington have shown that 12 direct and indirect jobs are created for every one million board feet of timber harvested. AFRC would like to see this important point addressed in the Final Decision.

3. Regarding the commercial thinning units, the document states that trees will be cut down to a 5-inch dbh to control density, improve growth, and improve forest health. AFRC is concerned if this applies to all species. Merchantability standards vary for different species. The 5-inch size may be somewhat workable for lodgepole regarding fencing and railing, but that 5-inch dbh minimum is well below the standards for Douglas-fir, grand fir, pine, and cedar. AFRC believes that when those species are present, the merchantable diameter limits should be raised, and the smaller trees treated during post-operational pre-commercial treatments. One other option may be if the green biomass (chipwood) was either optional or required removal with separate pricing. AFRC agrees that some of that material definitely needs to be addressed but if chipwood markets don't exist or are weak there might be an option to address it through fuel mitigation methods other than removal.
4. AFRC supports the prescription where commercial thinning would retain between about 20 to 50 square feet of basal area per acre in Douglas-fir Dry and between about 30 to 55 square feet of basal area per acre in Northern Rocky Mountain Mixed Conifer. AFRC also supports the creation of small canopy openings (less than 2 acres) on up to 15 percent of each unit. Created openings would increase spatial variability in units to help foster resiliency to insects, disease, and fire.
5. In the commercial thinning combined with regeneration harvest, we are pleased to see that a variety of regeneration methods would be used on up to 4,552 acres of the COMBO treatment area, generally in patches of up to 40 acres in lieu of small canopy openings less than 2 acres, to move units toward desired conditions. AFRC and our

members have observed stands with poor forest health that need regeneration treatments that establish a new cohort of young and vigorous trees.

6. AFRC supports the strong data and rationale to move the Project forward to address the risk of insect and disease outbreaks and mortality on up to approximately 22,084 acres of Douglas-fir Dry, up to approximately 18,528 acres of Northern Rocky Mountain Mixed Conifer, and up to approximately 452 acres of subalpine fir/lodgepole pine. Also, with treatments, fire regime departures would be reduced on up to approximately 22,315 acres of Douglas-fir Dry and up to approximately 18,720 acres of Northern Rocky Mountain Mixed Conifer through proposed vegetation treatment.
7. The future of the National Forests timber program 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 believes that the long-term sustainability of the timber supply on Forest Service land and 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.”
8. AFRC supports piling and burning of slash or lopping and scattering. We are concerned about the ability to treat 6,199 acres with prescribed fire. Our concerns are due to often short windows of burning days, and smoke conditions in the Colville Valley that may prevent burning due to poor mixing in the atmosphere.
9. While AFRC supports the overall road package we have concerns about the 17.8 miles of roads that are planned to be decommissioned. While the Draft EA suggests that these roads are not needed for future vegetation management and are not otherwise needed, AFRC would like to remind the Forest that 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. The road decommissioning proposed in the Chewelah A-Z Draft EA likely represents a **permanent** removal of these roads and likely the deferral of management of those forest stands that they provide access to. Removal of adequate access to these lands compromises the agency’s ability to achieve these objectives and is very concerning to us.

We would like the District to carefully consider the following three factors when deciding to decommission any road in the project area:

1. Determination of any potential resource risk related to a road segment
2. Determination of the access value provided by a road segment
3. Determination of whether the resource risk outweighs the access value (for timber management and other resource needs).

We believe that only those road segments where resource risk outweighs access value should be considered for decommissioning.

Furthermore, AFRC believes that a significant factor contributing to increased fire activity in the region is the decreasing road access to our federal lands. This factor is often overshadowed by both climate change and fuels accumulation when the topic of wildfire is discussed in public forums. However, we believe that a deteriorating road infrastructure has also significantly contributed to recent spikes in wildfires. This deterioration has been a result of both reduced funding for road maintenance and the federal agency's subsequent direction to reduce their overall road networks to align with this reduced funding. The outcome is a forested landscape that is increasingly inaccessible to fire suppression agencies due to road decommissioning and/or road abandonment. This inaccessibility complicates and delays the ability of firefighters to attack nascent fires quickly and directly. On the other hand, an intact and well-maintained road system would facilitate a scenario where firefighters can rapidly access fires and initiate direct attack in a more safe and effective manner.

If the Forest Service proposes to decommission, abandon, or obliterate road segments from the Chewelah A-Z planning area we would like to see the analysis consider potential adverse impacts to fire suppression efforts due to the reduced access caused by the reduction in the road network. We believe that this road network reduction would decrease access to wildland areas and hamper opportunities for firefighters to quickly respond and suppress fires. On the other hand, additional and improved roads will enable firefighters quicker and safer access to suppress any fires that are ignited.

10. The Forest is planning to use commercial thinning, shelterwood removal with reserves, and commercial thinning with regeneration harvests in the riparian areas. AFRC supports this plan and would like to provide this additional information.

It has been well documented that thinning in riparian areas accelerates the stand's trajectory to produce large conifer trees and has minimal effect on stream temperature with adequate buffers. Removal of suppressed trees has an insignificant short-term effect on down wood, and ultimately a positive effect on long-term creation of large down woody debris and large in stream wood, which is what provides the real benefit to wildlife and stream health. We encourage the Forest Service to focus their riparian reserve treatments on a variety of native habitats. The INFISH/PACFISH describes the need for treatments that meet the need of multiple habitat types, and we encourage the Three Rivers 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 these rules should be considered.

11. The wildfire risk in the project area shows that approximately 99 percent of the project area has a moderate, high, and very high potential for wildfires in closed canopy, overstocked forests with high levels of insects and disease. This puts life, property, and infrastructure at risk, including approximately 15,759 acres in the WUI; approximately

132 miles of boundary with other ownerships (private, state, other Federal agencies) that are primarily forest, agricultural, and rural residential; approximately 189 miles of high-use recreation transportation routes, including 44 miles within RMAs; and approximately 165.4 miles of powerline rights-of-way. AFRC believes this is a great opportunity to use tools such as shaded fuel breaks along main travelled roads to create fire breaks and to allow for more vistas rather than just solid walls of trees. Shaded fuel breaks could also be used as fire barriers along ridge lines as proposed. Harvest units could be configured along landscape lines to blend in better with the topography.

12. AFRC is very pleased to see that you have set criteria for each type of logging equipment giving the operators flexibility. For example:

- Rubber-tired skidders should be limited to slopes less than 35%. Adverse skidding and short slope lengths may be steeper, at the discretion of sale administrators and when posttreatment soil disturbance meets soil quality standards.
- Feller bunchers, harvester-forwarder systems, and other tracked heavy equipment are limited to slopes less than 45%. Short slope lengths may be steeper.
- Tethered assisted steep slope machines (SSM) should be limited to slopes less than 70%. SSM should be tethered on slopes greater than 45% and use adequate cable tension. Tethered equipment shall remain on designated trails. SSM equipment and practices should conform to Washington State Department of Labor and Industries Technical Report Number 98-02-2019.

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 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%.

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

A key point of the Green paper includes:

- 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.

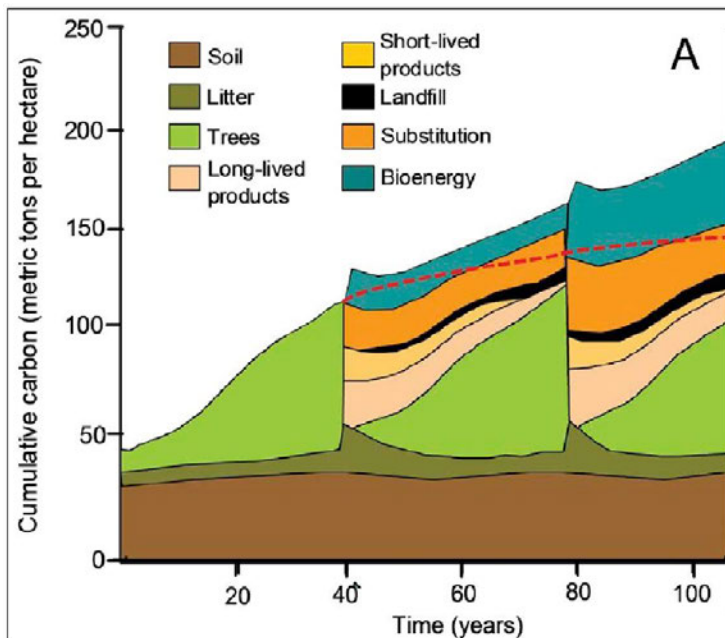
Key points of the Garland paper include:

- 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.

13. AFRC previously requested that you further supplement your record by including the following information from a technical report by the Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon. We did not see this additional information included in your Draft Decision.

- 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 Chewelah A-Z project analysis.**



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 Three Rivers 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 gasses 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. 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.

Thank you very much for the opportunity to provide a letter of support along with suggestions on how to make the Chewelah A-Z Project stronger. Should there be any Objections filed on this Project, AFRC would like to be a part of the Resolution meeting to voice our support. We believe that a Resolution meeting, if needed, should include all the stakeholders who have participated in the NEPA process at the same time.

Sincerely,



Tom Partin
AFRC Consultant

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