



VIA Email: appeals-northern-regional-office@usda.gov

May 4, 2022

Objection Reviewing Officer
USDA Forest Service
Northern Region
26 Fort Missoula Road
Missoula, MT 59804

Dear Reviewing Officer:

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide comments on the South Yaak Fire Salvage Project.

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 Kootenai 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.

On March 31, the Three Rivers Ranger District announced that it prepared an environmental assessment (EA), draft decision notice (DN) and finding of no significant impact (FONSI) for the South Yaak Fire Salvage Project, which opened the 45-day objection period. The project is located north and west of Troy, Montana. AFRC submitted scoping comments on November 23, 2021. We are not writing to object to the Project, rather this letter is in support of the Project moving forward quickly and hopefully begin implementation in early summer.

AFRC continues to support the Purpose and Need for the Project which includes:

1. Recover economic value of forest products in a timely manner to contribute to employment and income in the local community and avoid loss of commodity value.
2. Reduce hazards threatening human health and safety.

3. Re-establish forested conditions and facilitate recovery to meet management objectives outlined in the Forest Plan.

Some of the main points from our scoping letter that we would like to reemphasize include:

1. AFRC supports the Forest's request for an Emergency Situation Determination (ESD) to assist in moving the Project forward quickly. We believe this will help get the Project to implementation in the timeliest manner.
2. We continue to remind the District that if timber sales can be offered in the spring or early summer of 2022, they will maintain most of their timber value. Delivering the sawlogs to the sawmills will provide the timber they need to operate. AFRC has emphasized that the "restoration" treatments that are desired on these 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.

Montana's forest products industry is one of the largest components of manufacturing in the state and employs roughly 7,700 workers earning about \$335 million annually. Without the raw material sold by the Forest Service, DNRC, and private lands, these mills would be unable to produce the amount of wood products that the citizens of this country demand. Without this material, the industry 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.

3. The table below is a summary of the Proposed Actions.

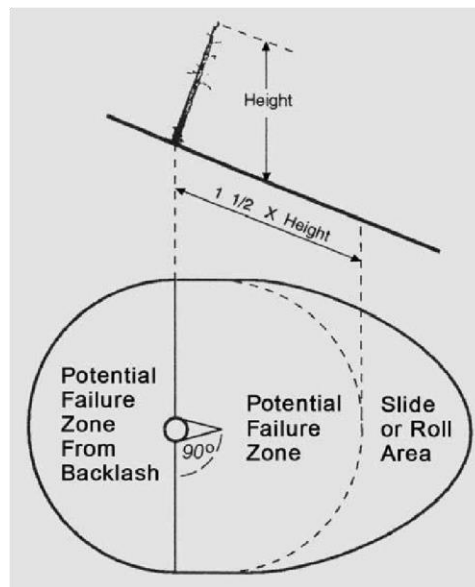
Table 2. Summary of Proposed Actions

Treatment	Approximate Acres/Miles
Salvage logging by tractor	624 acres
Commercial Roadside Hazard Tree Removal	3 Miles
Reforestation with salvage	619 acres
Reforestation without salvage	300-350 acres
Temporary Road	0.5 miles

AFRC supports both the 624 acres of salvage and the three miles of commercial roadside hazard tree removal. The distance for removing those danger trees could extend up to 150 feet from the identified travel routes and would include primarily dead and dying trees. Some potential surviving trees that are fire damaged and pose a risk of falling onto the identified roadways may be included for removal where necessary. AFRC also requests that the Forest review the Montana OSHA guidelines for hazard tree removal.

Copied below is a figure that illustrates potential failure zone for danger trees from the Guide to Identifying, Assessing, and Managing Hazard Trees in Developed Recreational

Sites of the Northern Rocky Mountains and the Intermountain West. Please consider these guidelines and ensure that, whatever hazard zone is identified, that it can be supported by scientific research.



Adequate documentation of the Field Guide for Danger-Tree Identification is advisable given the ongoing challenges by special interest groups against hazard tree removal. Recent court rulings have indicated some confusion regarding the use of the Field Guide to identify hazard trees that have potential to impact roads. In particular, there have been questions regarding whether a specific tree poses an “imminent” hazard. Therefore, we recommend that you highlight and outline certain components of your guidelines in the final Decision-Memo/Notice including:

- Thorough explanation of tree falling dynamics on level ground, including the effects of wind events, force of breakage, and how fallen trees may impact other nearby trees (causing broken tops, etc.).
 - Thorough explanation of tree falling dynamics on sloped ground, including the likelihood of downslope trees falling uphill.
 - Emphasis on how the Danger Tree Guidelines identify both the “Tree Failure Potential” and the “Potential Failure Zone.” Specifically note that any given tree has a Failure Zone and describe how that failure zone is determined.
4. AFRC also supports the District’s plan to create openings larger than 40 acres. This proposed action includes six units with openings between 40 and 112 acres. Where natural catastrophic events such as fire, windstorms, or insect and disease attacks have occurred, treatment may exceed 40 acres without 60-day public review and Regional Forester approval, provided the public is notified and the environmental analysis supports the decision. The proposed salvage units occur within areas of moderate and high mortality, which are now considered openings. Areas where dead and dying tree salvage occurs would appear more open than areas not salvaged. AFRC supports the 60-day

approval period for creating openings larger than 40-acres to run concurrently with the 30-day scoping period for this Project.

5. AFRC would like to remind the Forest Service that crown scorch is not the only appropriate criteria for determining tree mortality. In the 624 acres of salvage, AFRC requests that trees that experienced significant root or bole damage from burning but still exhibit green foliage in their crowns be assessed for removal. We learned from the 2017 fires that root scorch usually kills the tree. Assessment of the suite of damage types—root, bole, and crown—should collectively determine which trees pose a hazard.
6. AFRC supports harvesting in the twenty acres previously classified as recruitment for potential old growth. A stand that no longer meets the old growth classification standards, as set forth in Green et al. and the 2015 Forest Plan, no longer needs to be retained for old growth purposes.
7. AFRC supports the construction of approximately 0.5 mile of temporary road to facilitate harvest activities in Unit 18. Temporary roads are constructed to access landings and are rehabilitated upon completion of all harvest activities. The temporary road would be recontoured after use to the approximate shape of the surrounding terrain. This would be closed to the general public using berms or debris placed near the entrance and along the first portion of the road.
8. **Standard utilization specifications used on green Forest Service timber sales will not likely be appropriate for the salvage sales generated from this EA.** Due to the damaged nature of the timber products being proposed for harvest, there will be an unusually high level of uncertainty by the Forest Service and prospective purchasers of the actual value of those products on the stump prior to harvest. This uncertainty is exacerbated by the fact that additional time for wood deterioration will elapse between the time of purchase and the time of harvest. Therefore, the Forest Service should be developing minimum removal requirements and utilization specifications that align with this uncertainty. Purchasers will recover as much value from these damaged products as possible. Required them to recover value that is not available will reduce the likelihood that these sales will successfully sell.
9. It is important that the Forest Service consider all available scientific literature related to both action and inaction following wildfire to enable the decision-maker the ability to assess the tradeoffs of a.) conducting timber salvage; and b.) not conducting timber salvage. We would like the Forest Service to review the literature cited below and incorporate its findings into your environmental analysis.

Hydrology

Cole RP, Bladon, KD, Wagenbrenner, JW, Coe Drew B.R. Hillslope sediment production after wildfire and post-fire forest management in northern California. *Hydrological Processes*. 2020;1-18

Key points/findings of the Cole paper include:

- Sediment yields two years following the fire event were highest in areas that did **not** include timber salvage.
- Sediment yields were lower on areas that were salvaged.
- Post-fire management resulted in lower rates of erosion and sediment delivery.

Niemeyer RJ, Bladon KD, Woodsmith, RD. Long-term hydrological recovery after wildfire and post-fire forest management in the interior Pacific Northwest. *Hydrological Processes*. 2020;1-16.

Key points/findings of the Niemeyer paper include:

- Spikes in streamflow and runoff recovered more quickly on timber salvaged areas than on areas not salvaged.
- Post fire land management strategies, including timber salvage, may have increased the rate of hydrologic recovery in the long term when compared to unmanaged areas.

Robichaud PR, Lewis SA, Brown RE, Bone ED, Brooks ES. Evaluating post-wildfire logging-slash cover treatment to reduce hillslope erosion after salvage logging using ground measurements and remote sensing. *Hydrological Processes*. 2020;1–15.

Key points/findings of the Robichaud paper include:

- Logging slash applied at a rate to achieve a mean ground cover >60% was found to be an effective treatment to reduce post-salvage runoff and soil erosion.

Reforestation

Sessions, J, Bettinger P, Buckman R, Newton M, Hamann J. Hastening the return of complex forests following fire; the consequences of delay. *Journal of Forestry*. April/May 2004, pp 38-45.

Key points/findings of the Sessions paper include:

- Timber salvage can assist in the hastening of complex mature conifer forests on burnt landscapes.
- Delays in effective timber salvage could destine much of the most intensely burned areas to cycles of shrubs, hardwoods, and recurring fires for many decades.

Hazardous Fuels

Peterson, David W, Dodson, Erich K, Harrod, Richy J. Post-fire logging reduces surface woody fuels up to four decades following wildfire. *Forest Ecology and Management*. 338 (2015) 84-91.

Key points/findings of the Peterson paper include:

- Post fire logging can significantly reduce future surface woody fuel levels in forests regenerating following wildfires.

10. AFRC is concerned about the impacts dead trees that are not salvaged might have on the amount of CO₂ released into the atmosphere. Little study has been done to analyze what gasses are released into the atmosphere from the dead trees left on the landscape following a major fire like the South Yaak fire.

We would like to encourage the District to consider several documents related to carbon sequestration related to forest management to help supplement your file.

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.

AFRC strongly believes that in the absence of timber salvage the dead trees remaining on the landscape 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 (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 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 for the opportunity to provide a letter of support for the South Yaak Fire Salvage Project to move forward. I look forward to following this Project as it moves to implementation in the coming months.

Sincerely,

A handwritten signature in dark ink, appearing to read "Tom Partin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Tom Partin
AFRC Consultant
921 SW Cheltenham Street
Portland, Oregon 97239