VIA Project Link: https://www.fs.usda.gov/project/?project=58396

November 22, 2022

Ashland Ranger District
c/o Ronald Hecker
District Ranger, Ashland Ranger District
PO Box 168
Ashland, Montana 59003

Dear Ronald:

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide Draft EA comments on the South Otter 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 Custer-Gallatin 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.

The South Otter Restoration and Resiliency Project encompasses 293,500 acres on the southern part of the Ashland District. The purpose and need for the South Otter Landscape Restoration and Resiliency project is to improve forest resiliency in ponderosa pine forested areas, provide for biological and structural diversity, reduce the risk of largescale catastrophic wildfire, and reduce fuel loads in existing forested stands. The Ashland Ranger District and surrounding lands have been significantly impacted by wildfires in recent years. Nearly 60 percent of the Ashland landscape has been affected by large fires since 1995 including approximately one-third (143,200 acres) of the area burned in the Ash Creek and Taylor Creek Fires in 2012.

AFRC submitted a scoping comments on February 10, 2021, however the Project needed to be reanalyzed under the new Custer-Gallatin Forest Plan. In our scoping comments and still today,

we strongly support implementation of Alternative 2 of the Project based on the Purpose and Need for the Project which includes:

- Restore ponderosa pine ecosystems towards a more heterogeneous forested landscape with a diverse age and size structure (including old growth), understory structure and composition, patch size, and patterns that are resilient to natural disturbances such as fire, insects and disease, and climate change.
- Reduce fuel loads to enhance fire suppression capabilities by modifying fire behavior.
- Provide wood products to contribute to employment and industry in local communities and help support the sustainable supply of timber from National Forest System lands.

While AFRC supports the Project we offer the following comments and suggestions that we believe might strengthen and provide support for the Project.

1. First, we are very pleased to see that providing jobs, services and products are part of the Purpose and Need. To support this, we encourage the Forest Service to treat as many acres as practical when implementing this EA. The expense of these planning documents is high, and we feel it is important to get as much work done using this document. Treating more acres also adds to the timber volume that will be produced. The National Forests in Montana are very important for providing the raw materials that sawmills within the State need to operate. 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. Specifically, studies in Montana have shown that 12-15 direct and indirect jobs are created for every one million board feet of timber harvested. 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 way these products are permitted to be delivered from the forest to the mills.

   Additionally, Montana's forest products industry is one of the largest components of manufacturing in the state and employs roughly 7,000 workers earning about $300 million annually. While most of the industry is centered in western Montana, this Project is also crucial to the infrastructure located in eastern Montana, Wyoming, and South Dakota. With the closure of the R-Y plant in Townend, Montana and the reduction of ponderosa pine harvest in the Black Hills National Forest, the availability of raw material is even more important to keep existing mills operating.

   Further, AFRC 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 future needs. This future need for timber products hinges on the types of treatments implemented by the Forest Service today. Of importance is how those treatments effect the long-term sustainability of the timber resources on Forest Service

managed land. By not managing the maximum number of acres today, will impact the ability to produce the timber needed in the future.

2. While AFRC supports the Project and Alternative 2, we are somewhat disappointed that the acres being treated commercially have been reduced from scoping. Currently the plan is to commercially thin 21,812 acres down from 22,600 acres in scoping and 4,535 acres of improvement cuts down from 4,655 acres. AFRC would like an explanation of why these reductions were made.

   The current plan for commercial thinning is to remove 20-40 percent of the commercial size trees (nine inches or greater DBH for ponderosa pine) and is used to accelerate the stands towards larger size classes. AFRC believes a more aggressive thinning regime needs to be used whereby trees are thinned leaving only 40 sq.ft. of basal area across the landscape. This accomplishes two goals—reduction of fuel loading and enhancing the vigor of trees left on the landscape.

3. AFRC does not believe the District has adequately disclosed the full suite of impacts that would occur should any components of Alternative 1 (No Action) be implemented. Among those impacts is the imminent threat of wildfire to the entire Project area, the cost and destruction from recent large wildfires such as the ones that burned in 2012, and damage to other resources such as aquatics, wildlife and private property. Should the Project be delayed for any reason, a summary of tradeoffs to implementation should be available for the public. . For example, under the discussion of Hydrological Resources—Alternative only states: *"Under the no action alternative, forested landscape would remain relatively homogeneous, the low-frequency high severity fire regime would not change, and fuel loads would not be reduced on a broad spatial scale. Since the landscape would not be moving towards a higher frequency, lower intensity fire regime, the associated reduction in wildfire-related soil and vegetation impacts would not be realized."*

   AFRC believes this totally understates and downplays the risks and potential damage to this resource and others. We are sure the District has an accurate sense of the wildfire costs in recent years and the dollars spent to improve destroyed resources. These costs to all resources should be disclosed to better understand the benefits of selecting Alternative 2 and the potential tradeoffs of selecting any component of the No Action Alternative.

4. The Proposed Road Activity calls for:

Proposed Road Activities	Estimated Miles
Maintenance on existing NFS roads	80
Maintenance on coincident routes	153
Reconstruction on existing NFS roads (post treatment obliteration)	31

Proposed Road Activities	Estimated Miles
Temporary routes (post treatment obliteration)	168
Private access agreements	26.5
Decommissioning of roads currently closed to the public	25

This calls for a total of 56 miles being decommisioned. 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 decommissioning of roads in the South Otter Project area likely represents ***permanent*** removal of these roads and the deferral of management of those forest stands that they provide access to. The land base covered in the South Otter Project area is to be managed for a variety of forest management objectives. 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:

a. Determination of any potential resource risk related to a road segment.
b. Determination of the access value provided by a road segment.
c. 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. AFRC is generally supportive of BMP upgrades to existing roads, however we encourage the use of hydrologically self-maintaining structures like rolling drain dips rather than structures that require periodic maintenance or are subject to breakage such as flappers or open top box culverts.

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 South Otter 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. Please consider whether all the temporary roads need decommissioning and by what methods this will be accomplished.

5. To make this Project economically feasible the District should adjust their minimum specifications for what constitutes a sawlog to be in alignment with local industry standards. The size of the trees and the distance to transport to a milling facility will require a larger piece size. At a minimum, AFRC suggests raising the minimum dbh for sawlog trees to 12 inches and the minimum top size to 8 inches. If the Forest Service wishes to have smaller trees removed, they should be marketed as non-sawlog material. This will also help in thinning trees in the mid-size class there is an overabundance of middle size class ponderosa pine trees (10-15" DBH) and a shortage of large diameter class trees (>15" DBH) as the chart below points out.

Size Class			
Seedling and Sapling (<5")	5-35%	38%	33%
Small Tree (5-9.9" DBH)	1-25%	6%	10%
Medium Tree (10-14.9" DBH)	1-25%	48%	51%
Large Tree (15"+ DBH)	55-95%	8%	6%

Addtionally the tables below indicate that there will not be enough revenue generated to do the needed design for the sale and planned nontimber harvest work.

The District is proposing thousands of acres of expensive non-commercial treatments. Since the availablity of commerical timber products has been reduced due to wildfire, we suggest the District consider every possbile acre for commercial treatment to help pay for the proposed non-commerical stand improvements.

Table 9. Project Feasibility and Financial Efficiency Summary (2019 dollars)

Category (Measure)	No Action	Proposed Action
Timber Harvest Information (Acres Harvested)	0	26,141
Timber Harvest Information (Sawtimber Volume Harvested (CCF))	0	219,984
Timber Harvest Information (Base Rate ($/CCF))	0	3.00
Timber Harvest Information (Appraised Stumpage Rate ($/CCF))	0	3.00
Timber Harvest Information (Predicted High Bid ($/CCF))	0	8.65
Timber Harvest Information (Total Revenue (Thousand of $))	0	1,904
Timber Harvest & Required Design Features (Present net value($Thousands))	0	-2,578
Timber Harvest and All Other Planned Non-Timber Activities (Present net value($Thousands))	0	-9,653

Average Annual Employment and Labor Income Contributions from all Project Activities.

Analysis Item	No Action	Proposed Action
Direct Employment	0	86
Indirect and Induced Employment	0	53
Total Employment	0	139
Direct Labor Income (Thousands of 2019 $s)	0	4,045
Indirect and Induced Labor Income (Thousands of 2019$s)	0	2,974
Total Labor Income (Thousands of 2019 $s)	0	7,019

While AFRC is very appreciative of the fact that this Project could yield over 100 mmbf of timber and provide 139 jobs during the life of the Project, there are methods for improving the economic outlook. That would include the harvest of larger trees, more trees per acre harvested, and limitied required road work and brush disposal (BD). AFRC also supports using Designation by Prescition for marking the harvests units to reduce sale preparation costs.

6. We would also like the District to recognize that one of 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 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 Custer-Gallatin market area with a variety of skills and equipment. Developing this EA 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 EA 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 cable 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 feller-bunchers 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. Please prepare your NEPA analysis documents in a manner that will facilitate flexibility in the use of various types of equipment. AFRC believes that with some of the lighter touch logging methods as mentioned above, the impacts could even be less than those analyzed.

Finally, AFRC would like the Forest to examine the days that operations and haul are shut down due to hunting seasons and other outdoor recreation. The logging community has a limited operating time at best, and further reductions such as these only makes surviving in the logging business that much more difficult.

7. AFRC also supports removal of conifers from the stands of aspen and other hardwood species. The Plan calls for keeping equipment out of the aspen stands which is understandable, however, there should be flexibility for allowing conifers to be pulled out of those aspen clones.

8. AFRC would like the District to consider implementing shaded fuel breaks along some of the major ingress and egress roads. These shaded fuel breaks should have thinnings done back at least 200 feet on each side of the road for not only fuel breaks, but also to improve forest health.

9. In reading the scoping documents, and looking at the proposed plan, AFRC believes that an EA will be adequate for planning of this Project. The real threat to the area is wildfire and this Project will help in recovery from past fires and for preventing future fires, thus there should be a finding of no significant impact in your analysis.

10. The issue of carbon sequestration and greenhouse gasses should be discussed in every Project. Carbon was addressed in the Draft EA however, AFRC asks the Forest to consider the points below from a technical report by the Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon. This would bolster the Revised Draft EA.

- 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 South Otter project analysis.**

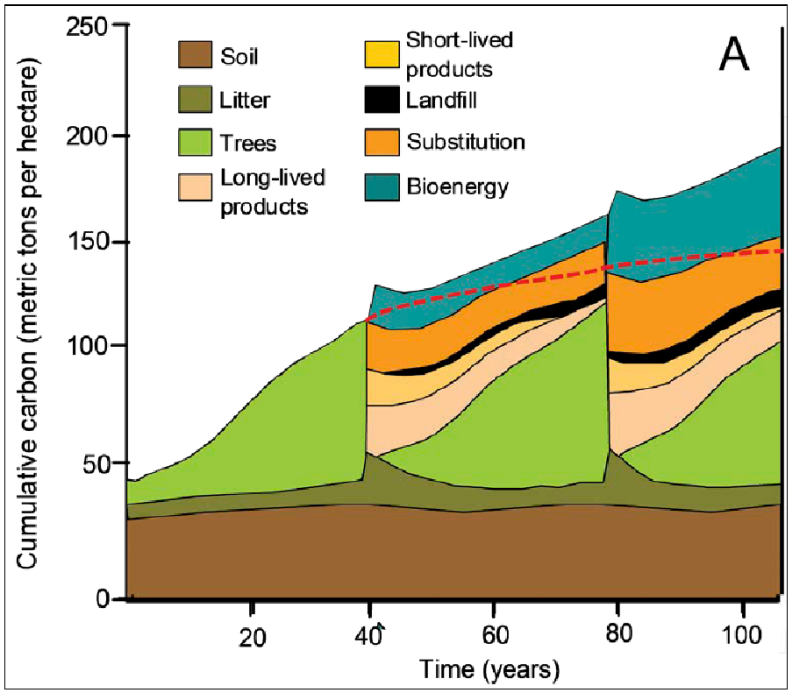

Figure 8.7—Carbon balance from a hypothetical forest management project in which the forest is harvested roughly every 40 years from land that started with low forest carbon stocks. This figure accounts for forest regrowth and carbon stored in wood products in use and landfills as well as the prevented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

AFRC believes that 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 for the opportunity to provide Draft EA comments on the South Otter Project. I look forward to this Project being implemented and getting the needed fuels treatments put on the ground.

Sincerely,

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