VIA Link: https://www.fs.usda.gov/project/custergallatin/?project=57361

April 25, 2025

Custer Gallatin National Forest
Gardiner Ranger District
PO Box 5
Gardiner, MT 59030

Dear Cooke City Fuels Project Leader:

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to comment on the Cooke City Fuels and Forest Health Project Draft EA.

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 project area is located outside of the Northeast entrance to Yellowstone National Park. The project stretches from Yellowstone National Park on the west, follows the Wyoming state line on the south, east of Colter Pass along the Highway 212 corridor, and north to the Absaroka-Beartooth Wilderness boundary and Daisy Pass and Lulu Pass. The Beartooth Highway services the corridor that contains approximately 200 private or commercial structures, a major power line, two Forest Service campgrounds, one Forest Service administrative facility and four trailheads.

From the description above and the fact that this area is an access point to Yellowstone National Park, there is a lot of traffic and tourist use in this area. The area also contains mapped Wildland Urban Interface (WUI) areas that desperately need fuels reduction for fire control.

Considering all of these factors, AFRC supports the Purpose and Need for the Project which includes:

- Improve public and firefighter safety by reducing fire intensity adjacent to Cooke City.
- Improve the health and condition of the forest ecosystem, including whitebark pine.
- Improve stand resilience to wildfires by retaining or increasing the proportion of fire resistant species and modifying stand structure.
- Change the amount of available fuel, the arrangement of fuels, and the condition of vegetation to:
    - Provide for safe evacuation routes, including ingress and egress, for firefighters and residents of Cooke City
    - Provide a defensible space adjacent to private property

While AFRC supports the Purpose and Need for the Project, we offer the following comments that we hope can improve and strengthen the Project going forward.

1. AFRC is disappointed in the number of commercial acres being treated. This number has been reduced even more from scoping to Draft EA.

Scoping Table

Table 1. Proposed action by treatment type

Method	Estimated Acres
Tractor (Ground Based) Harvest	288.4
Mechanical Fuels Treatment	3,180.5
Hand Fuels Treatment	224.1
Total Treatment Acres	**3,693**

Draft EA Table

Table 1. Proposed action by treatment type.

Method	Acres
Commercial Harvest	241.5
Mechanical Fuels Treatment	384.7
Non-mechanical Fuels Treatment	578.6
Whitebark pine Enhancement (Non-mechanical)	1344.2
Whitebark pine Enhancement (Mechanical)	669.2
Total Treatment Acres	**3218.3**

More merchantable volume would also increase the volume of needed sawlogs to be delivered to local sawmills. AFRC would like to remind the Forest that supporting local industry and providing useful raw materials to maintain a robust manufacturing sector should be a principal objective to any project, including the Cooke City Project. AFRC

has pointed out before 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.

The Forest acknowledges that stands are in poor condition in the description of the stand resiliency section. "*The forested conditions of the Cooke City project area have the potential for high intensity wildfires due to the advanced age and high stand density of the forest. These high stand densities combined with the fire behavior of the predominantly spruce and lodgepole pine forests create the potential for large scale stand replacing fires throughout the area and most importantly in the wildland urban interface."*

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. 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.

We again question why you are not taking more larger and older trees to deal with this hazard and help to generate more sawlog volume.

2. AFRC believes the Forest should go into much more detail about what WILL happen under the No Action Alternative. We believe your current No Action Alternative is very weak: "*The no action alternative (alternative A) was developed to demonstrate the difference between the proposed action and continuing with current management. It differs from the proposed action in several ways but notably through its lack of action to change the nature and arrangement of fuels in the project area to reduce the spread of insect and disease, not contributing towards the Wildfire Crisis Strategy goals in reducing the risk of wildfire to people, communities, infrastructure, water sources, and other values and resources or to increase forest health and resilience in a comprehensive way.*

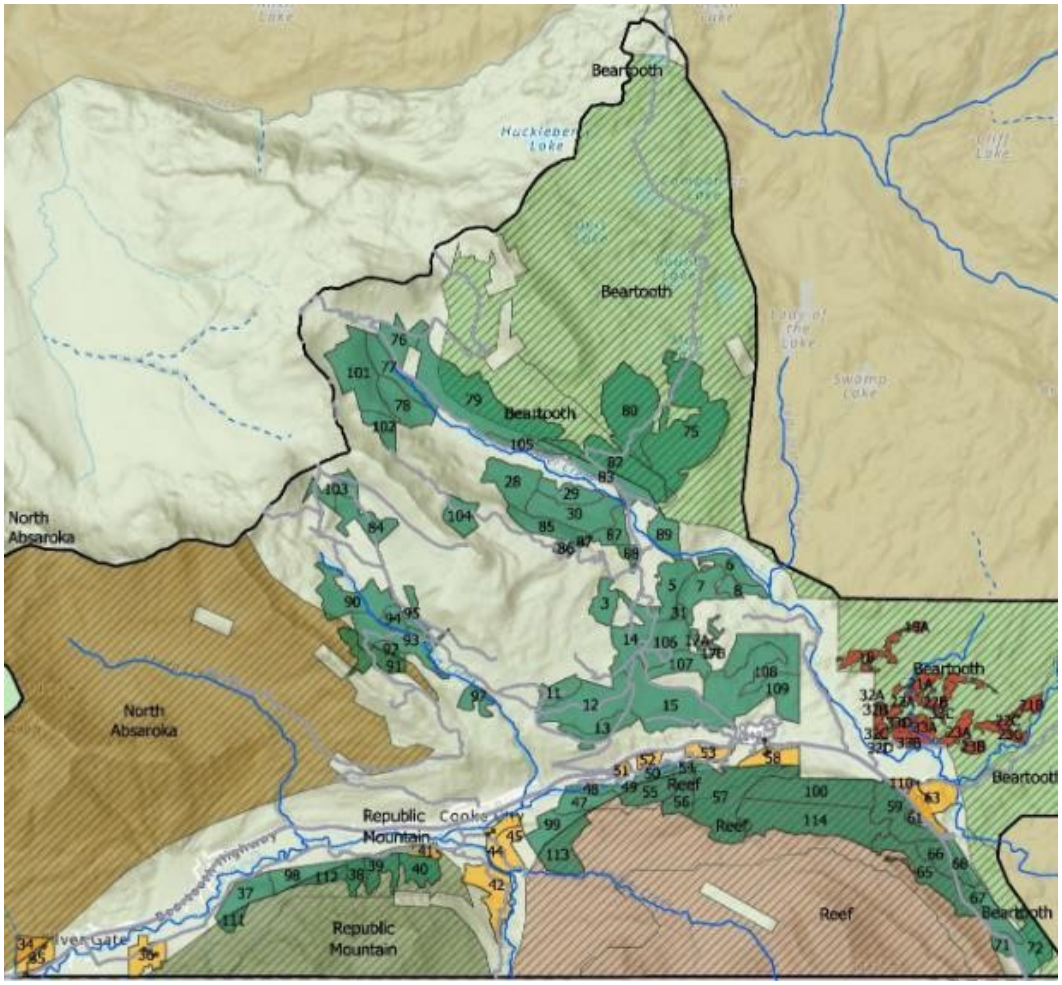
With this alternative, current management would continue and the conditions and trends that exist today would continue on the landscape. Fire risk around these communities is likely to increase under the no Cooke City Fuels and Forest Health Project action alternative. Opportunities to move the area toward the desired conditions in the Forest Plan would not be taken."

The Forest needs to point out that the local communities and WUI are at severe risk as well as all of the tourists who visit the Park and use this area. You can't sugar coat the strong prospect for a catastrophic wildfire in the area which we believe you are doing in this No Action Alternative.

3. In our scoping comments AFRC commented that we support the Forest entering into the Inventoried Roadless Areas within the Project area. However, the Forest has chosen to only enter into 1,469 acres of the total 206,718 acres of Roadless Areas or less than one percent. See table and map below:

Table 7. Acres of treatment and precent treated in inventoried roadless areas

Roadless areas:	Total IRA Acres	Proposed Acres Treated	Percentage Acres Treated
Beartooth	6,427	647	10.07%
North Absaroka	180,138	57	0.03%
Reef	19,316	658	3.41%
Republic Mountain	837	107	12.78%
Total	206,718	1,469	0.71%



The dark green units along the Reef and Republic Mountain IRA's are mechanical treatments not including commercial. AFRC asks the Forest to review these areas to see if some of these units could include larger merchantable timber for removal in the work. We believe the Forest is missing a big opportunity for not doing more commercial work.

We would also like the Forest to examine the mechanical fuel treatment acres to see if more commercial units could be implemented in all of the Roadless Areas.

We are now further disappointed since the treatment acres have fallen to 1,224.9 acres.

Table 4. Summary of treatments in inventories roadless areas.

Treatment	Acres
Commercial Harvest	40.6
Mechanical Fuels	214.8
Non-mechanical Fuels	466.6
Whitebark Pine Enhancement Mechanical	73.4
Whitebark Pine Enhancement Non-mechanical	429.5
Total Acres	**1224.9**

4. AFRC remains very concerned about the economics of this project and how the noncommercial work will be funded. The Forest is only treating 288.4 acres commercially which will generate some retained receipts or K-V funds. This leaves over 3,000 acres to be treated in one form or another. AFRC questions the Forest as to where these funds will come from? Again, one solution is to increase the acres and volume of commercial timber to be removed.

5. AFRC is disappointed that the Forest opted not to use fuel breaks for fire protection. In our scoping letter we outlined that we would like the Forest to use shaded fuel breaks in and along strategic areas and travel routes. The Forest acknowledges they have problems in these areas: *The current fuels conditions in the Cooke City project area present potential risk of fire impacts to the wildland urban interface (WUI), ingress and egress corridors."* We think this could be a real positive factor in modifying fuels to alter potential fire behavior allowing for controllability of wildland fire. We recommend these fuel breaks be 200 feet on each side of he roads and thinned to a basal area of 40 sq.ft.

6. AFRC supports the carbon and climate change analysis done in the scoping document. Part of this work states: "*The Custer Gallatin National Forest participates in the Northern Rockies Adaptation Partnership, which is a science-management collaboration that assesses the vulnerabilities of natural resources and ecosystem services from climate change and works to implement science-based adaptation strategies to mitigate the negative effects of climate change. Adaptation strategies recommended by the partnership include managing for mixed age classes and successional stages in lodgepole forests and returning fire regimes to natural conditions through prescribed burning and mechanical thinning (Halofsky et al. 2018b, Halofsky et al. 2018a). The activities included in this project (forest resilience and fuels treatments including prescribed fire) contribute to climate change adaptation strategies in the Cooke City project area"*

   We would like the Forest to bolster this section and to clearly outline how the proposed treatments, while possibly emitting carbon in the near term, would ultimately benefit climate change mitigation goals by 1.) reducing the likelihood of carbon emissions through wildfire; 2.) increasing the rate of carbon sequestration by reducing competition

to residual trees; and 3.) storing carbon in long lasting wood products that would otherwise be at risk of loss through wildfire. Carbon loss through high intensity wildfire has become a leading cause of our national forests transitioning from carbon sinks to carbon sources. Active management to reduce such a transition would not only reduce carbon loss but accelerate carbon sequestration. And ultimately, any timber products harvested to further these two objectives has been shown to have long lasting carbon storage potential.

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 (GHG) emissions from wildfires the second most important source in the state, after transportation. For context, the U.S. 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 are designed to improve stand health and resilience by reducing forest density or removing trees damaged by insects or disease that make up 86 percent of those acres. The remainder are final regeneration harvests that are designed to be followed by reforestation." There is an 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. The figure below from the IPCC (2007) illustrates the concept of stacking. **Please consider adopting this graph into the Cooke City Fuels and Forest Health Project analysis.**

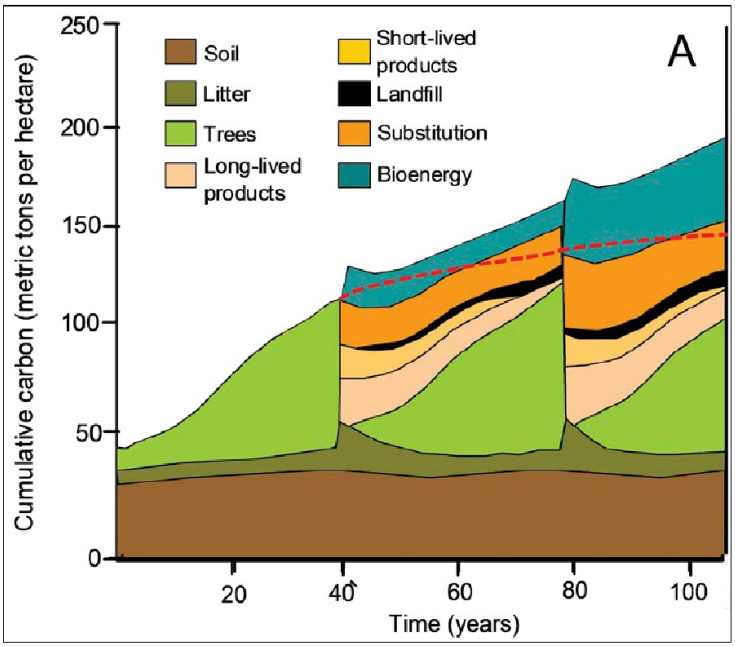


Figure 8.7—Carbon balance from a hypothetical forest management project in which the forest is harvested roughly every 40 years from land that started with low forest carbon stocks. This figure accounts for forest regrowth and carbon stored in wood products in use and landfills as well as the prevented 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. 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 sustainably at an optimum stand age will sequester more carbon in the combined products, wood energy, and forest than harvesting sustainably at other ages*.

We would like to encourage the Forest 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 9–18% 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.

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 USDA recently published a Technical Report on the future of America's forests and rangelands.

Key points of the 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 C 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.

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 climaterelated 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.

7. AFRC believes the Forest has done a good job analyzing the impacts of the Project on threatened or endangered species. For Canada lynx, grizzly bear, North American Wolverine, and Whitebark Pine the findings show that this Project may affect and is not likely to adversely affect these four species.

8. AFRC is pleased to see how the Forest has addressed ground skidding in the document: *"Non-tethered ground-based mechanical equipment will not operate on sustained grades steeper than 40 percent. Short slopes up to 45 percent may be crossed on a limited basis. Tethered (assisted) ground-based equipment or spider walking equipment will be evaluated on a unit-by-unit basis, and initial use would likely be limited based on monitoring for use and future consideration."*

   AFRC always likes to remind the Forest Service that 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. This is especially true with

the Cooke City Project. 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 Custer Gallatin National Forest market area with a variety of skills and equipment. Developing an EA contract that firmly prescribes 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 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 may be planned for cable harvest, there may be opportunities to use certain ground equipment such as fellerbunchers and processors in the units to make cable yarding more efficient. While we appreciate the language mentioning ground skidding flexibility, we would like the Forest to allow ground-based equipment to operate on slopes up to 45%. Allowing the use of processors and fellerbunchers throughout these units can 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. Tethered-assist equipment is also becoming a more viable, safe, and available option for felling and yarding on steep slopes. This equipment has been shown to contribute little additional ground disturbance when compared to traditional cable systems.

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 limited operating time at best, and further reductions such as these only makes surviving in the logging business that much more difficult.

Thank you for the opportunity to provide Draft EA comments for the Cooke City Fuels and Forest Health Project. We look forward to commenting on the Draft EA when it is released.

Sincerely,

Tom Partin
AFRC Consultant