VIA Link: http://www.fs.usda.gov/project/?project=64492

March 21, 2025

Chris Dowling, District Ranger
Swan Lake Ranger District
200 Ranger Station Road,
Bigfork, Montana 59911

Dear Chris:

On behalf of the American Forest Resource Council (AFRC) and its members, thank you for the opportunity to provide comments on the East Valley Fuels Reduction Project.

AFRC is a regional trade association whose purpose is to advocate for sustained timber yield 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 Flathead 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 is located along the Highway 83, Foothills Roads and Highway 206 corridors on the east side of Flathead valley starting in the north just east of Columbia Falls going south to Bigfork on Forest Service land. The Project is in an area designated prior to March 23, 2018, in accordance with section 602(b) and (c) of the Healthy Forests Restoration Act (HFRA). A hazardous fuels project may be carried out under this authority to reduce the risk or extent of, or increase the resilience to, insect or disease infestation, or to reduce hazardous fuels in the area (HFRA, Sections 602(d) and 603(a)).

Additionally, in 2023, Chief of the Forest Service, Randy Moore identified “an emergency situation on National Forest System lands within 250 high risk firesheds across the West.” These firesheds were identified as most in need of fuel and forest health treatments to reduce the risk of catastrophic wildfire. The Kalispell and Bear Creek Village firesheds encompass 99 percent of

the East Valley Fuels Reduction project area and were among the 19 high risk firesheds that were identified in Montana. Also, on January 4, 2001, Bigfork and Hungry Horse, Montana were identified as "wildland-urban interface (WUI) communities in the area of federal lands at high risk from wildfire." The East Valley Fuels Reduction Project proposes treatments located adjacent to these communities with all treatments in the WUI.

AFRC supports the Purpose and Need for the Project which includes:

- Fire mitigation treatments are necessary to help keep communities safe and to promote healthy, resilient, forests.
- Improve the diversity and resilience of terrestrial ecosystems and vegetation. Treat vegetation for ongoing and/or future drought conditions, insects and disease hazards, and wildfire on the landscape.
- Reduce fire behavior near communities within the wildland-urban interface to facilitate safer, more effective wildland fire operations. Provide spatially connected, fuel reduction treatments to modify fire behavior and increase firefighters' chances of reducing impacts to the communities of Bigfork, Creston, Columbia Falls, and surrounding areas from wildfires.
- Produce forest products to contribute to the economic sustainability of local economies.

While AFRC supports this Project, we offer the following comments and information that we hope will strengthen your document.

1. AFRC supports treating the 2,541 acres that are identified in the Project. See the table below. Of these acres, 1,686 acres will be treated commercially and 855 acres treated non-commercially.

Table 1. Summary of the Proposed Action

Proposed Vegetation Treatments	Approximate Acres*
Non-commercial fuels treatments	855
Commercial Thin	649
Commercial -Improvement Cut	351
Commercial -Seed tree	147
Commercial- Shelterwood	539
Total Vegetation Treatments	**2,541**

Since the entire area is in the WUI, AFRC suggests that you strongly consider basal area reduction to 40 sq.ft./acre in most stands where appropriate. This will accomplish the needed fuels reduction and forest health improvements while improving tree vigor and growth on the residual standing trees.

2. AFRC is very pleased to see that one of the Purpose and Needs is the production of forest products to contribute to the economic sustainability of local economies. Our members depend on a predictable and economical supply of timber products off Forest Service land to run their businesses and to provide useful wood products to the American public. 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

particular importance is how those treatments affect the long-term sustainability of the timber resources on Forest Service managed land. AFRC has voiced our concerns many times regarding the long-term sustainability of the timber supply on Forest Service land and how the current management paradigm is affecting this supply.

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.

3. AFRC supports managing within the Inventoried Roadless Areas (IRA). This work would include 43 acres of improvement harvest and 66 acres of non-commercial treatments in the Bear-Marshall-Scapegoat-Swan IRA. No roads would be constructed in the IRA, and for the commercial work, logs would be skidded to existing roads outside the IRA.

As the Forest likely knows, active management, including commercial timber harvest, is permitted in IRAs. Section 294.13 of the Roadless Rule permits the cutting and removal of "generally small diameter timber" if needed to "maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects." We believe that such removal is likely needed in these IRAs to address wildfire risk.

We urge you to clearly articulate how the proposed IRA treatments are consistent with the Roadless Rule's direction regarding "generally small diameter timber" as treatment in IRAs is contentious and may result in heavy scrutiny from those opposed to active forest management.

4. The Project includes approximately 73 acres of commercial treatment and 62 acres of non-commercial treatment of upland vegetation (conifer forest) within 50-300 feet of a water body or stream edges, depending on the category of the water body or stream. These treatments would improve tree growth, improve species composition, and reduce fuel loads in upland stands. Project activities in riparian management zones would follow forest plan standards.

AFRC believes that managing in the riparian areas can help to achieve the Project's goals. 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 Forest Plan describes the need for treatments that meet the need of multiple habitat types, and we encourage the 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 should be considered.

The tradeoffs that the Forest Service will likely consider through the ensuing environmental analysis will be between achieving these forest health benefits and potentially having adverse impacts to streams. These impacts to streams typically include stream temperature, wood recruitment, and sedimentation associated with active management. We would like the Forest Service to review the literature cited below and incorporate its findings into your environmental analysis that will shape the level of management permitted to occur in riparian reserves.

Stream temperature

Janisch, Jack E, Wondzell, Steven M., Ehinger, William J. 2012. Headwater stream temperature: Interpreting response after logging, with and without riparian buffers, Washington, USA. *Forest Ecology and Management,* 270, 302-313.

Key points of the Janisch paper include:

- The amount of canopy cover retained in the riparian buffer was not a strong explanatory variable to stream temperature.
- Very small headwater streams may be fundamentally different than many larger streams because factors other than shade from the overstory tree canopy can have sufficient influence on stream temperature.

Anderson P.D., Larson D.J., Chan, S.S. 2007 Riparian Buffer and Density Management Influences on Microclimate of Young Headwater Forests of Western Oregon. *Forest Science,* 53(2):254-269.

Key points of the Anderson paper include

- With no-harvest buffers of 15 meters (49 feet), maximum air temperature above stream centers was less than one-degree Celsius greater than for unthinned stands.

Riparian reserve gaps

Warren, Dana R., Keeton, William S., Bechtold, Heather A., Rosi-Marshall, Emma J. 2013. Comparing streambed light availability and canopy cover in streams with old growth versus early-mature riparian forests in western Oregon. *Aquatic Sciences* 75:547558.

Key points of the Warren paper include:

- Canopy gaps were particularly important in creating variable light within and between reaches.
- Reaches with complex old growth riparian forests had frequent canopy gaps which led to greater stream light availability compared to adjacent reaches with simpler second-growth riparian forests.

Wood Recruitment

Burton, Julia I., Olson, Deanna H., and Puettmann, Klaus J. 2016. Effects of riparian buffer width on wood loading in headwater streams after repeated forest thinning. *Forest Ecology and Management*. 372 (2016) 247-257.

Key points of the Burton paper include:

- Wood volume in early stages of decay was higher in stream reaches with a narrow 6meter buffer than in stream reaches with larger 15- and 70-meter buffers and in unthinned reference units.
- 82% of sourced wood in early stages of decay originated from within 15 meters of streams.

Sedimentation

Rashin, E., C. Clishe, A. Loch and J. Bell. 2006. Effectiveness of timber harvest practices for controlling sediment related water quality impacts. *Journal of the American Water Resources Association*. Paper No. 01162

Key points of the Rashin paper include:

- Vegetated buffers that are greater than 33 feet in width have been shown to be effective at trapping and storing sediment.

Collectively, we believe that this literature suggests that there exists a declining rate of returns for "protective" measures such as no-cut buffers beyond 30-40 feet. Resource values such as thermal regulation and coarse wood recruitment begin to diminish in scale as no-cut buffers become much larger. We believe that the benefits in forest health achieved through density management will greatly outweigh the potential minor tradeoffs in stream temperature and wood recruitment, based on this scientific literature. We urge the Forest Service to establish no-cut buffers along streams no larger than 40 feet and maximize forest health outcomes beyond this buffer.

5. The document outlines the parameters for log skidding. *"Harvested trees can be removed with various logging systems, including ground-based skidding, skyline cable yarding, skyline swing with tractor, tethered equipment, and log forwarders. The trees that are cut as part of the harvest treatments would be removed from the units by either tree yarding or cable yarding methods. The tree yarding method, called ground-based, involves using logging equipment such as skidders, mechanized harvesters, tethered machinery or a combination of those types of equipment. Cable yarding methods would be used on steeper topography where a crane-like machine known as a yarder, would operate from a road and would pull the partially suspended logs up the hill using cables."*

AFRC would like to remind the Forest that there are many ways to design a timber sale that enables a purchaser to deliver logs to their mill in an efficient manner while also adhering to the necessary practices that are designed to protect the environmental resources present on Forest Service forestland. The primary issues affecting the ability of our members to feasibly deliver logs to their mills are firm operating restrictions. As stated above, we understand that the Forest Service must take necessary precautions to protect their resources; however, we believe that in many cases there are conditions that exist on the ground that are not in step with many of the restrictions described in Forest Service contracts.

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 Flathead National Forest market area with a variety of skills and equipment. Developing a 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 soil 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 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 allowing ground skidding to occur on slopes over 35% if approved, 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 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. Tethered-assist equipment is also becoming a more viable, safe, and available option for felling and yarding on steep slopes. This equipment has shown to contribute negligible ground disturbance when compared to traditional cable systems. 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%. It would be helpful if you would prepare your NEPA analysis documents in a manner that will facilitate this type of equipment. The effectiveness of harvesting and yarding low volume per acre on steep slopes is a significant obstacle to implementation. **We urge the District to consider allowing this equipment to be used where appropriate on the East Valley Fuels Project to mitigate implementation obstacles.**

Green, P. Q., Chung, W., Leshchinsky, B., Belart, F., Sessions, J., Fitzgerald, S. A., Wimer, J. A., Cushing, T., Garland, J. J. (2019). Insight into the productivity, cost and soil impacts of cable-assisted harvester forwarder thinning in western Oregon. *For. Sci.* 66(1):82–96

Key Point of the Green paper include:

- The use of cable assistance can reduce track coverage and reduce shear displacement, and thus likely lessen potential soil impact caused by forestry machines.

Garland, J., F. Belart, R. Crawford, W. Chung, T. Cushing, S. Fitzgerald, P. Green, *et al.* 2019. Safety in steep slope logging operations. *J. Agromedicine* 24(2):138–145.

Key Point 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.

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 make surviving in the logging business much more difficult.

6. AFRC supports the Road and Bridges plan which includes: "*Four temporary road segments of approximately 0.9 mile would be built to access Units 13, 14, 19, 40 and 41. These temporary road segments would be constructed using minimum standards necessary to accommodate safe log truck haul. All temporary roads would be rehabilitated following timber harvest activities and would cease to function as roads. Two temporary bridges are needed on National Forest System Road (NFSR)10320 for access and log haul from Units 35e, 35f, 37, 40, and 41."*

AFRC supports the rehabilitation of these temporary roads but cautions the Forest not to require costly obliteration or recontouring of the roads. We also suggest low-cost bridges be used such as railroad cars, or possibly even using pit run rock crossings in lieu of bridges.

7. AFRC supports the District's plan to use the HFRA Section 605 categorical exclusion (CE). If a CE is used, there would not be an additional comment period for the Project. AFRC believes all needed input can be received in this scoping period and from the outreach the District has already done with the local neighbors and partners.

8. Even though this Project is being planned using a CE we would like to encourage the District to consider several documents related to climate change and carbon sequestration related to forest management.

Please consider the points below from a technical report by the Climate Change Vulnerability Assessment and Adaptation Project (SWOAP) in Southwest Oregon.

- Wood harvested from the forest, especially timber used for durable structures, can be reservoirs of long-term carbon storage (Bergman et al. 2014).
- Forests and their products embody a closed-loop system in which emissions associated with harvests and product use are eventually recovered as forests regrow.
- Although products may be retired in solid waste disposal sites, they decompose quite slowly, causing carbon to continue to be stored for many decades.
- Products derived from the harvest of timber from national forests reduce carbon emissions by substituting for more energy-intensive materials including concrete, steel, and plastics.

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 East Valley Fuels Reduction Project analysis.**

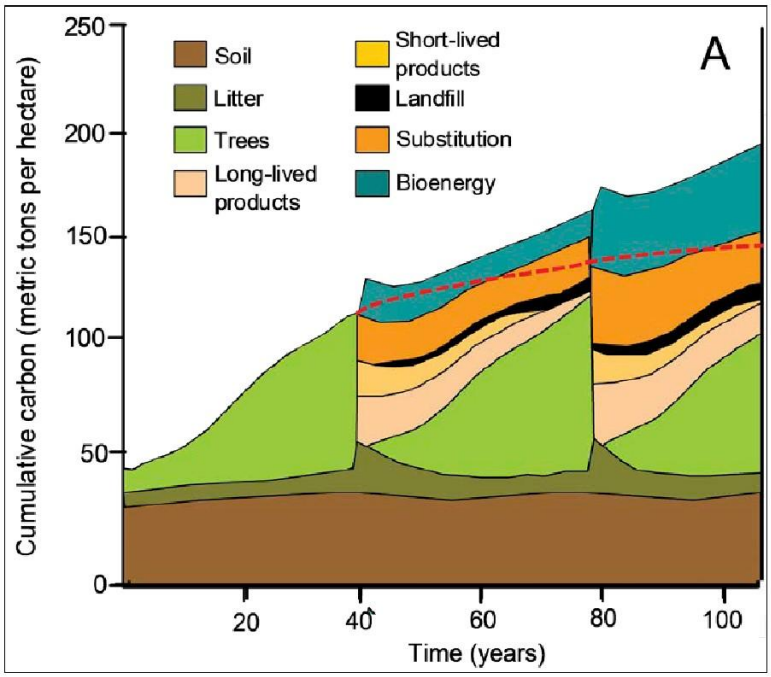

Figure 8.7—Carbon balance from a hypothetical forest management project in which the forest is harvested roughly every 40 years from land that started with low forest carbon stocks. This figure accounts for forest regrowth and carbon stored in wood products in use and landfills as well as the prevented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

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.

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.

Thank you for the opportunity to provide scoping comments on the East Valley Fuels Project. We look forward to the District pursuing a CE and moving this Project through quickly.

Sincerely,

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