



**VIA Email:** [appeals-northern-regional-office@usda.gov](mailto:appeals-northern-regional-office@usda.gov)

January 14, 2022

Objection Reviewing Officer  
Northern Region  
Federal Building, Building 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 support comments during the Objection Period for the Draft Record of Decision (ROD) and Final Supplemental Environmental Impact Statement (EIS) for the Gold Butterfly 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 Bitterroot National Forest and management on these lands ultimately dictates not only the viability of their businesses, but also the economic health of the communities themselves.

AFRC is not writing to file an objection to this project, rather this is a letter of support for the Project to move forward, and some suggestions to improve implementation. AFRC first commented on this Project during the scoping period on July 13, 2017. We next provided comments in response to the Draft EIS on June 14, 2018, an objection support letter on July 29, 2019, and finally comments in response to the Draft Supplemental EIS concerning old growth on August 7, 2021. Prompt implementation of this project is vital since the landscape has a history of stand replacing wildfires and AFRC believes this project area is on borrowed time before it too is impacted by fire.

Driving the urgency for treatment is the fact that 6,600 acres of the 55,147 acre project area is in

the Wildland Urban Interface, and approximately 10,500 acres is designated as insect and disease treatment area under Section 602 of the Healthy Forests Restoration Act (HFRA). Insects and disease have diminished the overall health and productivity of the stands, which are currently suffering from chronic Douglas-fir bark beetle, dwarf mistletoe, western spruce budworm infestations and a recent mountain pine beetle outbreak.

The long process leading up to this objection period began in 2017 with scoping followed by the publication of the Draft EIS in 2018. In June 2019, the Final EIS, its summary, and the Draft ROD for the Gold Butterfly Project were released to the public. An administrative review (objections) process was initiated at that time. An updated Final EIS was published in the Federal Register on October 11, 2019. The Gold Butterfly Project Final ROD was signed by Bitterroot National Forest Supervisor Matt Anderson on November 15, 2019, and with it an updated Final EIS was released to the public.

After the Final ROD was signed, it was determined a project-specific amendment to the Bitterroot Forest Plan was needed to align management of old growth stands in the project area with the best available scientific information. On August 28, 2020, the Forest Supervisor withdrew the Final ROD for the project with a letter directing forest personnel to conduct additional review and analysis regarding the needed amendment.

The Project Specific Forest Plan Amendment was needed to provide a more accurate definition of old growth for the Forest and to update the criteria that define and measure old growth characteristics. Research from Green et al. represents the Northern Region's best available scientific information to identify old growth because it contains measurable criteria to consistently define old growth based on a national definition that old growth forests are distinguished by old trees and related structural attributes. The old growth definitions are specific to forest type and habitat type group. AFRC submitted comments to this Amendment on Draft Supplemental Environmental Impact Statement on August 7, 2021.

At that time, AFRC supported the Forest Plan Amendment because:

- The 1987 Forest Plan defined standards and guides for measuring old growth are not statistically quantifiable or measurable and there is no literature supporting these guides. Green et al. uses measurable and statistically quantifiable key characteristics that define old growth forest (basal area, trees per acre, diameter at breast height, and age) to provide the means to monitor existing amounts and trends of old growth forest over time at the broad scale and to know the reliability of the estimates.
- The 1987 Forest plan does not define old growth forest as a community of forest vegetation that is distinguished by sufficient numbers of large, old trees and by stand densities and related structural attributes occurring at levels that meet the definitions established for the Northern Region of the Forest Service in Green et al.
- There is no distinction in the Forest Plan old growth criteria related to different habitat type groups.
- The Plan criteria do not specify any minimum age for the large trees used to determine whether a stand qualifies as old growth. Large trees used to determine the presence of old growth are defined only by size as quantified by diameter at breast height (dbh). This is

problematic because several common native tree species (e.g. ponderosa pine, Douglas-fir, Engelmann spruce) growing on productive sites can quickly exceed the Forest Plan criteria of 20" dbh prior to the stand developing old growth characteristics.

- The 6" dbh minimum size criteria for lodgepole pine is not based on the best available science and would likely greatly over-estimate the amount of old growth on the forest.
- There is no scientific basis for the 1987 Forest Plan to incorporate the criteria of 75% of site potential for canopy closure, and therefore cannot determine whether potential old growth stands meet this criterion.
- There is no distinction in the 1987 Forest Plan old growth criteria related to different habitat type groups in terms of the amount of down material greater than 6 inches diameter.

The application of the Green et al. criteria for identifying old growth in the Gold Butterfly project area results in more old growth acres designated than would under the application of the 1987 Forest Plan definition. Of the 11,966 acres inventoried 2,830 acres meet Green et al. criteria for old growth based on requirements for each old growth type. Using the existing Forest Plan old growth definition criteria, only 471 acres of old growth met the Forest Plan definition of 15 trees per acre greater than 20 "dbh. **Therefore, using the Greet et al. definition of old growth the District identified 2,359 additional acres of old growth in the Gold Butterfly Project.**

Again, AFRC supports this planning process and the Gold Butterfly Project, however, we offer the following comments that we believe will improve the Project during implementation.

1. AFRC strongly supports the Forest implementing **Alternative 2 with the three modifications as presented**. We believe this will still address the forest health issues, the high fire risk in the WUI, and will reduce sedimentation in Willow creek, all of which are high priorities for this project.

Modified Alternative 2 will treat 5,284 acres commercially and should generate about 30 mmbf of timber while Alternative 3 will not accomplish the Purpose and Need for the Project.

Treating more acres would also benefit the local counties and communities. National Forest System lands make up a good portion of the local county's land base. Thus, local communities have significant social and economic ties to NFS lands. According to the Montana Department of Labor, these counties currently have some of the highest unemployment rates in the state. This would beckon for treating more of the land to create more jobs, especially since most Montana mills are operating at less than full capacity and require an adequate supply of timber to remain viable and meet market demand.

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. Further, AFRC would like to remind the Forest that the National Forests in Montana are very important for providing the raw materials that sawmills within the State. 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.

The three modifications to Alternative 2 are outlined below:

- While AFRC strongly believes that some management should be done in the old growth stands we support the District's modifications on treatments in these areas to include: *"The regeneration harvest silvicultural prescriptions have been changed to commercial intermediate treatments or non-commercial treatments. Though not as effective, commercial intermediate treatments such as an improvement, or sanitation harvest will reduce tree density, open the canopy, and favor early seral species and still leave a fully stocked stand."* **AFRC supports the District's plan of treating approximately 285 acres in old growth using intermediate harvest. These stands will retain old growth characteristics following treatment.** This will be accomplished by converting 14 units, 266 acres with proposed regeneration harvest treatments in old growth, including clearcuts with leave trees (11 acres), seed tree cuts (99 acres), and shelterwood cuts (156 acres), to a commercial intermediate treatment. An intermediate treatment would retain and perpetuate old growth characteristics in ponderosa pine and/or Douglas-fir stands by leaving most of the large green trees and snags while removing mostly co-dominant and intermediate trees that show symptoms of susceptibility to western spruce budworm and/or other insects and diseases.

This modification applies to the following units containing old growth: 17, 18, 24a, 25a, 25b, 25c, 25d, 28, 30a, 30b, 30c, 30d, 53, 58a.

- The District has modified the Project to keep all regeneration units under 40 acres to meet the requirements as defined in the FEIS under the National Forest Management Act, 1921.12a Timber Managements Requirements. While we can support this effort we still believe some treatments should take place on these additional acres. There are 37 units with proposed regeneration harvest openings greater than 40 acres to be change to 40 acres or less. This modification applies to the following units: 11, 13b, 15a, 17, 18, 19a, 23b, 25a, 25b, 25c, 25d, 25e, 27,30a, 30b, 30c, 30d, 35, 36a, 36b, 48a, 52, 53, 54, 56., 58a, 58b, 62b, 75, 76, 82, 93, 134a, 115a, 177a, 134a. **In lieu of not doing regeneration harvest across these areas, we ask the District to consider using thinnings to reduce the stocking down to a basal area of 40 sq. ft. per acre.**
- AFRC can support converting two units with a proposed regeneration harvest treatment of clearcut with leave trees (154 acres) in old growth to a non-commercial treatment. Non-commercial treatments would remove target specie(s) within a unit up to a certain diameter limit. Treatments would favor retaining larger trees and whitebark pine maintaining old growth characteristics. This modification applies to the following units containing old growth: 13b, 93. **AFRC believes this could also reduce road building costs and reduce any activities around the white bark pine**

**stands.**

2. The road plan calls for decommissioning work on approximately 22.3 miles of roads that are no longer needed for future management, and 21.3 miles of Intermittent Stored Service (storage) on roads that are needed for future management of forest resources and decommissioning of non-system (undetermined) roads on 16.5 miles.

While we understand the need to manage your road system and protect resources at risk (especially the Willow Creek drainage), we ask that you consider that a significant factor contributing to increased fire activity in the region is the decreasing road access to our federal lands. This is especially true when considering the decommissioning of roads. 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 proposes to decommission, abandon, or obliterate road segments from the Gold Butterfly Project 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 fire fighters quicker and safer access to suppress any fires that are ignited.

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

- Determination of any potential resource risk related to a road segment.
- Determination of the access value provided by a road segment.
- 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.

Finally, we are including the links to three studies produced by Brian Sugden relating to road maintenance and sedimentation, BMPs in Montana and streamside management and impacts to water temperature. We think these studies can help inform the analysis related to aquatic resources.

<https://www.tandfonline.com/doi/abs/10.1080/14942119.2019.1571472?scroll=top&needAccess=true&journalCode=tife20>

<https://academic.oup.com/jof/article/110/6/328/4599544>

<https://www.tandfonline.com/doi/full/10.1080/14942119.2019.1571472?scroll=top&needAccess=true&>

3. AFRC earlier voiced concern with the number of acres that are planned for cable logging in our Draft EIS comments. AFRC would like to remind the Forest 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 Gold Butterfly 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 EIS'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 Lolo National Forest market area with a variety of skills and equipment. Developing an EIS 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 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 may take place 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 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 and available option for felling and yarding on steep slopes. This equipment has shown to contribute little additional ground disturbance when compared to traditional cable

systems. AFRC visited the 7-Mag Project on the Lolo last October and saw a tethered logging system in place and the results were very impressive. Please prepare your NEPA analysis documents in a manner that will facilitate this type of equipment.

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.

4. AFRC encourages the Forest to consider heavy thinnings or other appropriate silvicultural prescriptions around the 6,600 acres of WUI to improve forest health and to prevent the spread of insects, disease, and fire onto adjacent ownerships. Again, we encourage the District to thin down to a residual basal area of 40 sq. ft.
5. AFRC continues to support mechanically treating areas around meadows and aspen stands to return them to their earlier thrifty state before the invasion of conifers during implementation. These treatments have been shown to be very effective on many National Forests in the West. Additionally, AFRC supports managing in the old growth areas that are now prone to wildfire, insects, and disease. In these areas, AFRC suggests removing the dead, dying and diseased trees along with thinning from below to improve the overall health of those stands thus helping to protect the larger fire tolerant tree species. AFRC also supports mechanical treatments in whitebark pine stands to improve forest health. In these stands, we suggest removing a good portion of the Alpine fir that is growing in the lower canopy levels to reduce fire risk and reduce competition with whitebark pine.
6. Upon implementation of Gold Butterfly AFRC supports the use of Designation by Prescription DXP for harvest tree identification. This practice is being used more consistently and has proven to be more economically efficient while also generating desirable end results. We discussed this during our field trip to the Bitterroot Front project last July and the Forest seemed agreeable to using this designation method.
7. AFRC encourages the Bitterroot Forest to supplement your information regarding carbon sequestration in forthcoming Projects. This issue is becoming more important and should have some documentation.

We would like to encourage the Forest to consider several documents related to carbon sequestration and related 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:

- a. 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.

- b. 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.
- c. 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:

- a. 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.
- b. 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 CO<sub>2</sub>, then increasing the acreage of young, fast growing small trees is the most prudent management approach.

Links to the above-mentioned studies can be found at:

Lisa McCauley article on large scale forest restoration stabilizes carbon:  
<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.1979>

Andrew Gray article on Carbon stocks and accumulation rates in Pacific Northwest forests: role of stand age, plant community, and productivity:  
<https://www.fs.usda.gov/treearch/pubs/52237>

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 (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.

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 support comments for the Gold Butterfly Project during the Objection Period. AFRC would like to be involved in any objection resolution meetings that may be held.

Sincerely,



Tom Partin  
AFRC Consultant

[Redacted contact information]