Bitterroot Forest Collaborative

 September 14, 2023

Matt Anderson

Forest Supervisor, Bitterroot National Forest

Hamilton, MT. 59840

Dear Matt,

Thank you for the opportunity to comment on the Bitterroot Front Draft EA. The Bitterroot Forest Collaborative (BFC) recognizes that, except under conditions of extreme fire weather, decreasing the quantity and modifying the arrangement of hazardous fuels in some areas on National Forest System lands can potentially reduce current and future wildfire risk, including the risk our wildland firefighters. Nonetheless, in our view, your proposal for vegetation treatment on the Bitterroot Front warrants more extensive public engagement. For example, we advocate greater attention to helping the public fully understand how, when, and where treatments will be applied and broader interaction with the public to ensure that other resource domains, such as the needs of fish and wildlife habitat, are considered and accommodated.

While we do not expect the Bitterroot National Forest (BNF) to accept all or most of the recommendations we made in our 2021 letter and 2022 scoping comments (both attached), we do hope that you will seriously consider our input. Unfortunately, we do not see such evidence reflected of such consideration in the plan. We are the oldest Collaborative in Ravalli County and are tied to the Montana Forest Collaborative Network. Our recommendations are well researched and thoroughly debated by our members; none of the recommendations are extreme. For example, we do not categorically oppose commercial harvest; nor do we express knee-jerk, negative responses to BNF proposals. Among our members are retired BNF and NFS employees, who frequently inform the group about BNF policies, procedures, and perspectives. Our comments therefore represent deep analysis, thorough discussion, and extensive effort.

1. As emphasized in our previous submittals, we have great concern regarding the use of Condition-based Management (CBM) as it is being applied. This management approach diminishes the role of the public in decision-making about their public land by establishing generalized criteria which are then applied to specific locations at the discretion of Government representatives - without the benefit of public interaction that has proven most effective at exposing and addressing complexities of the natural environments. The District Court for Alaska’s March 2020 decision in Southeast Alaska Conservation Council, et. al v. United States Forest Service, et. al finds that CBM violates NEPA’s requirements for specificity in proposed projects. The public needs site-specific information in order to make reasonable comments. The American Bar Association also argues that CBM hinders the public’s ability to participate in the decision-making process: “CBM operates to circumvent the National Environmental Policy Act (NEPA) review framework by postponing site-specific analysis until the Forest Service implements the project, which effectively excludes the public from site-specific decisions, reduces transparency, and removes incentives for the agency to avoid harming localized resources.”

In the Draft EA, the BNF argues that CBM is their favored approach because it

“would facilitate a resilient landscape via successive treatments that are responsive to changes in conditions as disturbances and stressors occur” (22). This justification is related to the BNF’s estimation that this project will cover 20 years. However, in tables 3-6 (pages 13-17 of Draft EA), the BNF indicates that the treatments would take place over 4 years. While conditions may evolve substantially over the next 20 years, we question whether they be different enough in 4 years to merit an approach which limits public input.

We appreciate the work that you put into developing Appendix B -Implementation Process, but much of the important data resulting from the “Document and Assessment” phases will not be available until after much of the project has already been completed. By then it would be too late to make any necessary adjustments to the management for this project. More importantly, carrying out the entire “Implementation Process” will require significant funding and personnel. There are no assurances that additional staff and/or funding to complete documentation and assessment will be forthcoming.

**We encourage the BNF to utilize a more traditional NEPA process rather than CBM. If CBM remains the BNF’s choice for this project, please make all monitoring, assessment, and compliance documents available to the public, as part of the BNF’s stated intention to keep the public informed and involved.**

One example of information that the public would find useful and that the BNF could supply soon involves Commercial Intermediate Harvest and Prescribed Burning. According to the schedule of treatments in tables 3-6 (pages 13-17 of Draft EA), 18,817 acres will be treated with Commercial Intermediate Harvest and Prescribed Burning during Phase 1, in 2024. Timber sales associated with this treatment will have to go out to bid relatively soon if the schedule is to be met. Obviously, specific locations for timber sales will be included in a call for bids. **The public should have access to these specific locations as soon as timber companies have them.**

1. Another aspect of the Bitterroot Front Project that causes concern about public involvement and careful deliberation is the use of Emergency Authorization. The Emergency Authorization means that the project “will not be subject to the pre-decisional objection review process. The emergency authorization would provide the BNF staff the opportunity to accelerate the implementation of these critical fuels and forest health treatments” (Draft EA 1). However, this project is so large and long lasting that acceleration seems unwise. Responsible stewardship might suggest that projects of this nature merit deliberate rather than accelerated processes.
2. We support the concept of adaptive management and a strong monitoring protocol in the Draft EA. Effective forest management and a healthy or healthier forest depend on studying what treatments have worked previously. We have two concerns about the BNF’s adaptive management/monitoring plans for this project. We also ask that monitoring reports be easily available to the public.
* Under Phase 1, (2024 proposed implementation) 39,862 acres will be treated (Draft EA 15). None of the treatments planned for this phase are new to the Forest; they have been used in the BNF in previous projects. Had the monitoring planned in these earlier projects been carried out, they would be a source of information about the effectiveness of the treatments and therefore offer some guidance. Unfortunately, monitoring has rarely if ever been conducted on previous projects and has rarely been shared with the public if it has been done. Instead of treating nearly 40,000 acres and then assessing effectiveness, when only one year later 17,487 acres are scheduled to be treated, please look at earlier projects for information about effectiveness. We question the BNF’s ability to assess Phase 1 adequately when Phase 2 follows so quickly, in 2025. There would only be a matter of months to do that assessment and then modify plans for subsequent phases. To accomplish such monitoring and modification in such a short time seems improbable if not impossible. **Please either lengthen the timeline for treatments, adding more years between phases, or assess earlier projects that use the same treatments *before* beginning the Front project.**
* Adaptive management and monitoring seem particularly problematic for one treatment: Commercial Intermediate Harvest and Prescribed Burning. During Phase 1, that treatment is planned for 18,817 acres. The following phase/year, 8,067 acres are scheduled for Commercial Intermediate Harvest and Prescribed Burning. For the Phases 3 and 4, 120 acres and 476 acres respectively are schedule for that treatment. It seems illogical to do the largest number of acres in the first year and then plan to apply analysis of the effectiveness of the treatment the following years, especially the final two years, when very few acres will be treated with this method. If the BNF accepts our above suggestion to use previous projects that used Commercial Intermediate Harvest and Prescribed Burning to assess effectiveness, then treating so many acres in Phase 1 makes more sense. If that suggestion is not accepted, then **please plan a lower number of acres for this treatment in Phase 1 so that there is adequate time for assessment and modification of later phases. Please consider treating the majority of acres under this treatment category in Phases 3 and 4, so that, again, there is more time for reasonable monitoring.**
1. We are disappointed that the BNF dropped the Recreation portion of the project. We would like to see that section put back in as part of the overall project.
2. We are disappointed that the Draft EA does not discuss, let alone emphasize, the role that homeowners and other private property owners play (or not) in reducing hazards to their own homes. This would be just one opportunity to build synergy with the efforts of others such as Fire Safe Montana and insurers who emphasize owner responsibilities and effectiveness of self-intervention in the 100 feet surrounding their homes.
3. We are concerned about the extent of new roads being built, with 10 miles of new permanent system roads and 27 miles of temporary roads. It sounds like the temporary roads, where they will be reconstructed along undetermined “ghost” roads, will not be recontoured or obliterated and remain on the landscape, only closed. Because these roads are not visible or passible now, this represents a significant addition to the road system. We hope you will reconsider and agree to recontour and obliterate all temporary roads so that they are truly temporary.
4. We recommend in our position statements included in our Bitterroot Front scoping comments that in Roadless Areas “we favor, at most, light thinning of non-commercial trees followed by prescribed fire to alleviate competition stress and high fuel hazard.” We are disappointed that you are proposing commercial harvest in Inventoried Roadless Areas and in MA5.
5. We hope that you are still considering proceeding with an EIS, given the potential for this being a highly controversial proposal because of grizzly bear and bull trout issues and the dense human population.
6. We hope you will consider our scoping recommendations for establishing priority areas to maintain or restore habitat connectivity for the Bitterroot Front Project. Our recommendations are influenced to a great extent by data from Ruediger et al (2004) and include:

A. Tin Cup Creek to Rye Creek south of Darby.

B. Lost Horse, Lick and Camas Creeks across valley to Little Sleeping Child.

C. Bass Creek and Kootenai Creeks to the Lee Metcalf National Wildlife Refuge.

D. McClain Creek to Woodchuck Creek and MPG Ranch.

The kinds of factors that the Forest should consider when making management decisions in potential connectivity areas include limiting intensity of vegetation treatment, managing dispersed recreation use, scheduling and staging treatment activities to provide disturbance free habitat linkages within connectivity areas, and coordinating vegetation treatments with adjacent private lands.

1. Old Growth. We follow our position statements in recommending that “the Forest should justify the rationale for entering any old-growth habitat and avoid any designated old growth except where absolutely necessary. Definitions for old growth in Green et al. should only be used when recruiting stands to meet minimum old growth acreage requirements. To the extent possible, retain all or nearly all old/large trees. Retain and expand on existing relict trees, old forests, and post-disturbance large snags and down logs in these types.”

The Bitterroot Forest Collaborative members are dedicated to being involved with this very extensive project and hope that there will be more specific information available soon and many opportunities for us to provide input.

Sincerely,

Skip Kowalski and Kirk Thompson (Co-Chairs)

Bitterroot Forest Collaborative

Sources

Southeast Alaska Conservation Council, et. al v. United States Forest Service, et. al. March 11, 2020.

“The U.S. Forest Service’s Expanding Use of Condition-Based Management: Functional and Legal Problems from Short-Circuiting the Project-Planning and Environmental Impact Statement Process.” *American Bar Association.* May 10, 2021. <https://www.americanbar.org/groups/environment_energy_resources/publications/fr/20210510-the-us-forest-services-expanding-use-of-condition-based-management/>

Attachment 1

 August 26, 2021

Matt Anderson

Forest Supervisor, Bitterroot National Forest

Hamilton, MT. 59840

Dear Matt,

In response to your request that the BFC make site specific recommendations for projects on the Bitterroot NF, we offer the following priorities for the Bitterroot Front project proposal:

Vegetation and Fuels

Priorities for all vegetation treatments should be based on site specific stand conditions and include:

1. Stands within the wildland-urban interface (WUI) with opportunity to restore properly functioning ecosystems especially for old growth and mature ponderosa pine.
2. Areas that have the greatest probability to reduce the severity of fire effects, areas that have the least negative impacts on site resources, and areas with the greatest potential for effective fire suppression while ensuring fire fighter safety.
3. Areas where surface and/or canopy fuels have the greatest potential for crown fires.
4. Areas where fuels treatments can create diverse forest structures as described in Hessburg et. al. (2015) and that will allow a greater opportunity for future wildland fire use.

Specific recommendations include:

1. Focus timber harvest projects near existing road systems as much as possible to minimize new road construction, including reopening of naturally reclaimed roads. New roads are highly visible from the valley floor.
2. Help educate BNF-adjacent landowners about their responsibility to reduce wildfire hazard by building with fire-resistant materials, maintaining open stand structured landscapes, and significantly reducing surface fuels within 100 feet of structures.
3. In areas where trees are sparse, consider ‘forced migration’ which is planting species at somewhat higher elevation than they would normally be found. For example, planting ponderosa pine seedlings at 6500’ or higher. This concept is recommended in the face of climate change.
4. Several types of significant disturbances have occurred on the Bitterroot Front in the past 50+ years, primarily timber harvest and wildfires. Depending on the severity of the disturbance, these sites are in various stages of succession, either moving towards or away from a desired future condition. Frequently at early stages of recovery these sites are more easily manipulated to a desired pathway. A recommendation is that the forest examines these disturbed sites to determine if minimal management activity might result in a desirable condition. Examples include reducing understory competition in areas with big trees to more readily create old growth conditions or thinning dense conifer understories to reduce the risk of crown fire as well as improve forage production for ungulates.

Roads and Trails

Provide good road maintenance and improve surface drainage on forest roads, especially the following:

1. ST Mary #739, Big Creek #738, Glen Lake #1321, Blodgett/Canyon 735/736, Lick Creek #5621, Skalkaho-Rye #75, Lost Horse #429, Magruder Corridor #468, and Sawmill Saddle #710. Good gravel and dust oil on these roads will really help in maintaining a good running surface, reduce erosion and sediment getting into streams, and reduce loss of fines.
2. Road signs need to be replaced where damaged or faded, and additional signs added to help inform and guide forest users.
3. The Bitterroot NF travel plan has been in effect for several years, and good signage is needed to implement it. The public needs better maps for guidance. Signs at trailheads are especially important. There are volunteer groups, including some BFC members, who can help with posting trailhead signs
4. Trail systems near population centers have the highest usage; therefore provide high quality maintenance on these trails, such as from Bass Creek to Tin Cup Creek.
5. There is a real public desire for more low elevation trails for non-motorized users, especially loop trails. We suggest you consider more maintenance of existing trails and creating the following new trails:
6. Sweeney Creek overlook spur from the Bass creek loop trail system
7. Roaring Lion – Camas connection to the Coyote Coulee system
8. A system in Lick Creek partially using the old railroad grade, and connecting to the Lake Como area.
9. A loop system in the Spoon/McCoy area, connecting to the Tin Cup road.

The BFC is willing to provide both advice and location expertise in evaluating and locating potential new trails.

Wildlife Habitat Connectivity

Providing suitable habitat conditions that facilitate wildlife movement across the landscape does not preclude active forest management. It does, however, require giving greater consideration to resource coordination and placing increased emphasis on the scope, scale, timing and intensity of implementing vegetation management projects.

From a wildlife habitat connectivity perspective, providing suitable habitat conditions that link the Bitterroot and Sapphire Mountain ranges is a major necessity. This is especially relevant as private lands continue to be converted from working farms and ranches to residential development. The Bitterroot Forest should consider and capitalize on opportunities to facilitate wildlife movement across the Bitterroot Valley when planning, scheduling and implanting projects.

Priority for mitigating and enhancing wildlife movement between the Bitterroots and Sapphires should be given to areas where gaps across private land are shortest, where existing land use is not expected to significantly change and/or where conservation easements are in place. Our recommendations for establishing priority areas to work on for the Bitterroot Front Project are influenced to a great extent by data from Ruediger et. al. 2004 and include:

 1. Tin Cup Creek to Rye Creek south of Darby.

 2. Lost Horse and Lick Creeks across valley to Little Sleeping Child.

 3. Bass Creek and Kootenai Creek to Lee Metcalf National Wildlife Refuge.

 4. McClain Creek to Woodchuck Creek and MPG Ranch.

The kinds of factors that the Forest should consider when making management decisions in potential connectivity areas include the intensity of vegetation treatment, managing dispersed recreation use, scheduling and staging treatment activities to provide disturbance free habitat linkages within connectivity areas, and coordinating vegetation treatments with adjacent private lands.

Thank you for the opportunity to comment. We look forward to continuing to provide input as the Bitterroot Front Project continues to progress.

Sincerely,

Skip Kowalski and Kirk Thompson (Co-Chairs)

Bitterroot Forest Collaborative

Literature Cited

Hessburg et. al. 2015. Restoring fire-prone Inland Pacific landscapes: seven core principles. Landscape Ecol (2015) 30:1805–1835.

Ruediger, Bill, Pat Basting, Dale Becker, Joe Butsick, Polly Cavill, Jim Claar, Dr. Kerry Foresman, Guenter Hieinz, Duane Kaley, Sandy Kratville, John Lloyd, Mike Lucas, Sue McDonald, Gordon Stockstad, John Vore, and Ken and Robin Wall. 2004. An Assessment of Wildlife and Fish Habitat Linkages on Highway 93 – Western Montana. USDA Forest Service, USDI Fish and Wildlife Service, Confederated Salish and Kootenai Tribe, Rocky Mountain Elk Foundation, Montana Fish, Wildlife and Parks, Montana Department of Transportation, Geodata Services, The University of Montana. Forest Service Publication #R1-04-81, Missoula, MT. 41 pp.

Attachment 2

 Bitterroot Forest Collaborative

 May 10, 2022

Matt Anderson

Forest Supervisor, Bitterroot National Forest

Hamilton, MT. 59840

Dear Matt,

We want to thank you for the opportunity to provide scoping comments to your proposed landscape-scale Bitterroot Front Project. We offer both general and specific comments in hopes that they will be helpful as you continue to refine your proposal.

**General**

1. **Scope, Scale and Duration of the Project and Implications to Environmental Analysis and Public Involvement.** We have concerns that a Conditions-based project that runs along the Bitterroot Front from Darby to almost Lolo and will last more than a decade presents considerable risk. For example, it lacks up-front disclosure of site-specific treatment areas, has the potential to severely limit meaningful public participation, and hinders the chance that adaptive management techniques will be used or be effective. This is further complicated by authorities to use expedited environmental analysis procedures such as using CE’s in accordance with the Bipartisan Infrastructure Law (BIL) and the Healthy Forest Restoration Act (HFRA). We would like assurances that the public will have ample opportunity to comment on site-specific treatment areas and associated treatment plans as they are delineated during project implementation.
2. **Use of Hessburg et al (2015) and Churchill et al (2013) in the overall planning, development, implementation, and monitoring of the Bitterroot Front Project.** We are proponents of using science-based management in natural resources management and believe that using both of these publications together will maximize the potential to achieve the kinds of results in vegetation composition and arrangement across the landscape that we all desire and are ecologically sound. These publications were written by experts in forestry and natural resource management with a number of the authors actually being USDA Forest Service scientists. Although some Forest Service managers may perceive that such detailed analysis requires excessive time and/or effort, we believe the evidence indicates such homework will pay off in terms of results on the ground.
3. **Relationship of outcomes versus outputs.**  Our group believes that maintaining the integrity of ecological systems should be the driving force behind forest restoration. There is an array of treatments and methods that can be used to achieve the Desired Future Condition (DFC) of forest restoration (improving watershed condition and restoring vegetation patch size and arrangement historically produced by fire across the landscape, for example). We support using the most environmentally friendly procedures and practices to achieve the DFC. Wood products and jobs (outputs) that occur as results of achieving restoration goals are secondary benefits to local residents who view public lands in economic terms, but they are subordinate to the objective of restoring desired forest conditions (outcomes).
4. **Roles and responsibilities of local government and private landowners.** Local government and private land owners have the primary role in protecting private property from the adverse impacts of wildfires. Therefore, we fully support your efforts to work across ownership boundaries when planning treatments that will aid firefighters’ ability to effectively fight wildfires once they begin. However, local government and many private property owners are not doing their part in preparing for eventual wildfire events. We note that county government and home owners have substantial authority and responsibility to take actions that reduce the potential of wildfires that threaten life and personal property. In conjunction with management of the Bitterroot Front initiative, please leverage every opportunity to incentivize local government and private citizens to take complementary actions to maximize successful outcomes on National Forest System lands on behalf of all Americans (tax payers).
5. **Life-cycle funding.** Forest management inevitably suffers from a piecemeal approach to attention and resources. The Bitterroot Front initiative is an ambitious, large-scale effort whose success demands substantial analysis, coordination, monitoring, and feedback over time. We are concerned that, once approved, the project may not receive the sustained resources and attention needed to orchestrate and adjust the effort over time and in coordination with other activities.We are particularly concerned about provisions for monitoring and follow-up action, as forest management is not a “fire and forget” proposition. We strongly urge you to utilize available funding under the new Bipartisan Infrastructure Law (BIL) to fund all aspects and costs related to project planning, implementation, mitigation and monitoring. BIL provides a rare opportunity to reserve comprehensive funding for your proposed project and to demonstrate that landscape-scale projects can be successful. Equally important, full disclosure will show us the true expense associated with completing the entire job of forest restoration, thus giving us a better idea of how much similar future projects will actually cost.

We encourage you to actively consider potential impacts of climate change on reforestation. We strongly recommend that you plan for and request sufficient funding to implement successful reforestation activities (site prep, planting, release etc.) to ensure the regeneration of forest vegetation as natural processes in our region already show indications of decline. In anticipation of warmer climatic conditions, we support planting tree species that are most likely to thrive on sites that experienced unusually intense wildfires and/or are on extremely harsh timber sites.

1. **Use of Recommendations in Bitterroot Forest Collaborative Position Statements.** Our collaborative has spent a great deal of time during the past two years developing recommendations for proposed Forest Service projects. These recommendations reflect a consensus of our group and we expect that you will give them strong consideration for this and future projects.

**Specifics**

1. We agree with the goal of making the forest patches and patterns that resulted from past management more closely resemble that which would have existed under more normal fire regimes and, because most of the Bitterroot Front has been altered a great deal by past forest management and large wildfire events, we recommend that you focus restoration where opportunities exist for improving landscape resilience to disturbance and/or improving wildlife habitat. The Forest Service should work closely with private landowners and include landowner objectives when managing vegetation near private land. When the Forest is coordinating management with private landowners in the WUI for the purpose of aiding in fire suppression, the method, timing, and priority of vegetation treatments should focus on sites where wildfire conditions pose the most immediate threat to life and property. For areas requiring special management considerations, such as sensitive riparian areas, old growth habitat, Wilderness Study Areas (WSAs) and Roadless Areas, we favor, at most, light thinning of non-commercial trees followed by prescribed fire to alleviate competition stress and high fuel hazard. We see forest restoration and management opportunities elsewhere on the Bitterroot Front for restoring and recruiting mature and old age forests. We prefer using light-on-the-land treatments, methods that give high priority to the protection of soil, water, and visual resources, such as using pre-commercial thinning and/or individual tree or small group harvest without new roads. Your overarching objective should be to return forest patch size and distribution and stand age-class, structure, and species composition to conditions that more closely resemble those which would have normally existed prior to the era of intensive forest management.
2. We are unclear whether you plan to conduct your environmental analysis with an Environmental Assessment (EA) or Environmental Impact Statement (EIS). With the potential for this being a highly controversial proposal because of grizzly bear and bull trout issues and the dense human population, for example, we recommend that you consider proceeding with an EIS from the start. Also, with the potential for fast-tracking projects funded with the new Bipartisan infrastructure Law (BIL), we are also concerned that there is the potential for exempting projects like this from environmental review. We hope that, despite a quest for expediency, you still conduct a thorough and comprehensive assessment. Regardless, with an analysis of the size, scope, complexity, and duration of the Bitterroot Front Project, we request to have the opportunity to make specific comments and recommendations to you throughout the life of this proposal.
3. We do not oppose commercial timber harvest as a component of this project. However, we expect forest products to be outcomes of meeting your goals of promoting forest restoration. The expectation of achieving a certain amount of timber volume should not be a driver in this project.
4. Our members, like the scientific community, have differing views on the effectiveness of forest thinning to protect private homes and structures from wildfire, as proposed for this project. Therefore, as part of your proposal, we recommend that you use everything at your disposal to convince private home owners to make their homes as fire resistant as possible. (Our group would be willing to assist you in any way in getting such information out to private landowners.) In addition, since Ravalli County and the State of Montana are identified as partners in this proposal, we recommend that you use everything within your power to encourage local government to recognize and carry out their responsibility for reducing the impacts of wildfires on communities, private land, and property.
5. We appreciate that this is a landscape-scale project and propose that you strive to put the Forest on a trajectory to achieve more “naturally appearing” stand and patch sizes, species composition, and spatial patterns. We recommend that you use the principles, findings, and recommendations of Hessburg et al (2015) and Churchill et al (2013) as the basis for proceeding with the project. These publications were authored by numerous forest resources management professionals, a number of whom are USDA Forest Service researchers.

We not only agree with the seven core principles recommended by Hessburg et al. but also with their background statements that management has historically used “stands as the basic unit of organization,” that this approach “focused on tree conditions within stands and overlooked the larger scale patterns that emerged from this stand-based management.” We also agree that the stand-level approach is outdated and that developing landscape prescription is a way for managers “to move beyond stand-centered forest management.” We also concur with their recommendation “that landscape prescriptions are foundational to restoration” and that a “landscape prescription provides guidance for landscape composition, structure, and spatial arrangement in terms of the elements comprising the next lower level of the hierarchy.” In short, landscape prescriptions should be developed prior to establishing management direction for any lower level, such as a patch or individual forest stand.

Once you develop landscape level prescriptions, we support using the ICO (Individual, Clumps and Openings) method (Churchill et al, 2013) to set forest landscapes (Opportunity Areas, for example) on a trajectory “to restore the mosaic patterns of individual trees, clumps and openings” that one would normally expect to find in unmanaged pine, mixed conifer, and other forest types.

**Comments on your project objectives:**

1. **Reduce Fuels**: Decreasing the quantity and modifying the arrangement of hazardous fuels on National Forest System lands can potentially reduce current and future wildfire risk but will likely prove inadequate under conditions of extreme fire weather and is unlikely to protect adjacent untreated private property. We would like to see a greater emphasis placed on promoting the reduction of fuels on private lands immediately adjacent to private homes, promoting fire-wise practices by private home owners and encouraging Ravalli County government to establish regulations that promote more fire-wise policies and practices on private lands. In addition, we have concerns about the pace and scale of vegetation treatment necessary to mitigate wildfire hazard. Will there be sufficient funding available to continue the level of prescribed burning and mechanical treatment that you envision well into the future?

We recognize wildfire as a natural component of forest ecosystems in western Montana and recommend that the Forest Service use natural ignitions to aid in forest restoration as much as possible. We also recognize that prescribed fire is a tool that can be used to help achieve forest ecosystem restoration objectives, especially under conditions where forest fuel accumulations and conditions have deviated significantly from the expected range of natural variation (RNV). We also recognize that under extreme and active wildfire conditions, drastic measures will be taken to protect investments (power and utility lines, for example) and private property. With the expectation of such wildfire events potentially destroying homes and infrastructure, we recommend that the Forest Service anticipate, design and locate fuels treatment projects that can achieve the primary objective of desired patch and pattern across the landscape while giving consideration to wildland firefighter safety and protecting property and infrastructure.

1. **Improve landscape resilience to disturbances (such as insects, diseases, and fire) by modifying forest structure and composition**: The landscapes where past forest management and large wildfires have created more homogeneous conditions that pose threats that are greater than normal from insect, disease, and fire disturbances across vast areas should be prioritized for treatment, even though these areas may produce little commercial timber. In addition to modifying forest (stand) structure and composition, it may be even more important to focus on patch sizes and patch arrangement. As cited in Hessburg et al. (page 1811), managers should put landscapes on a path that is similar to successional patterns and disturbance dynamics that approximate those that would be created under natural disturbance regimes.
2. **Seek wildlife habitat improvement opportunities**: We agree with your basic statements regarding habitat enhancement opportunities for a variety of wildlife species. However, there are at least two instances where more specific recommendations are necessary. They are (1) enhance wildlife habitat connectivity, especially for animals such as big game, forest carnivores, and grizzly bears, to move between the Bitterroot and Sapphire Mountain Ranges and (2) manage vegetation around existing old-growth habitat to minimize its potential loss to wildfire and/or maximize its chances to become future old growth.

Providing suitable habitat conditions that facilitate wildlife movement across the landscape does not preclude active forest management. It does, however, require giving greater consideration to resource coordination and placing increased emphasis on the scope, scale, timing, and intensity of implementing vegetation management projects. Providing habitat linkages is especially relevant as private lands continue to be converted from working farms and ranches to residential development. Priority for mitigating and enhancing wildlife movement between the Bitterroots and Sapphires should be given to areas where gaps across private land are shortest, where existing land use is not expected to significantly change, and/or where conservation easements on private property are in place or planned.

Our recommendations for establishing priority areas to maintain or restore habitat connectivity for the Bitterroot Front Project are influenced to a great extent by data from Ruediger et al (2004) and include:

 A. Tin Cup Creek to Rye Creek south of Darby.

 B. Lost Horse, Lick and Camas Creeks across valley to Little Sleeping Child.

 C. Bass Creek and Kootenai Creeks to the Lee Metcalf National Wildlife Refuge.

 D. McClain Creek to Woodchuck Creek and MPG Ranch.

The kinds of factors that the Forest should consider when making management decisions in potential connectivity areas include limiting intensity of vegetation treatment, managing dispersed recreation use, scheduling and staging treatment activities to provide disturbance free habitat linkages within connectivity areas, and coordinating vegetation treatments with adjacent private lands. Recommendations for reducing fire risk to existing old-growth habitat and recruiting old growth are covered in detail in the recommendations at the end of this document and are supported by President Biden’s recent “Executive Order on Strengthening the Nation’s Forests, Communities, and Local Economies.”

1. **Contribute to the local economy and forest products industry**: Our group views contributions to the local economy as secondary benefits to implementing management actions that restore ecological integrity, reestablish disturbance regimes that keep systems within the natural range of variation (RNV), and provide quality habitat for a wide variety of fish and wildlife species. Having the federal government fund and implement restoration actions, especially on sites that currently have marginal economic value, should help encourage smaller local operators to make investments in methods that are lighter on the land, such as using smaller equipment and/or horse logging. In addition, light-on-the-land management should improve recreation and esthetic values, maintain and/or improve our quality of life, and enhance the attractiveness and desirability for entrepreneurs of green businesses to locate in the Bitterroot Valley.

**Other natural resource objectives to accomplish as opportunities become available**: Forest restoration, conducted in the proper manner, should have benefits to watersheds (reduce sedimentation and enhance water quality) and fisheries (maintain cooler stream temperatures for cold water species like bull trout and west slope cutthroat trout, extend the amount and duration of streamflow during the hot summer months, and reduce sediment). There should also be opportunities to provide recreation areas, similar to those at Bass Creek that can meet public demand for dispersed recreation and also provide watching wildlife opportunities.

**Highlights from Bitterroot Forest Collaborative Position Statements:**

In addition to providing the previous comments, our group has developed detailed “Position Statements” that include some agreed upon management recommendations. We would like you to consider them as you develop more refined proposals for the Bitterroot Front. They are:

**Fire and Fuels Recommendations**

1. A concerted Increase in the acres prescribed burned annually.
2. A focused increase in fuel treatments using diverse forest structures as described in Hessburg et al (2015), particularly in the north Bitterroot front, allowing a greater opportunity for wildland fire use.
3. Fuel condition should be evaluated for possible active treatments if surface and or canopy fuels are greatly departed from historic conditions. This also ties in with ecological restoration.
4. Fuel condition should be evaluated for treatments if key watersheds or rare ecological sites (old growth) would be threatened, if located in heavy recreation areas, and if adjacent to private land.
5. Values at risk should determine the intensity of the treatment (higher risk could lead a more thorough treatment, i.e., adjacent private land and old growth).
6. Restoration/fuel treatments that effectively reduce the probability of severe fire effects and that have the least negative impacts on site resources should be favored. Effectiveness of fire suppression and fire fighter safety should also be considered.
7. Any mechanical thinning operation should always be followed by some form of prescribed burning to reduce excess surface fuels.
8. Provide adequate funding for monitoring treatment effects in an adaptive management strategy. Monitoring should be a priority.
9. Pretreatment public field trips showing examples of ‘successful’ and ‘unsuccessful’ treatments.
10. Prioritize restoration/fuel reduction treatments within the wildland-urban interface where stand structure is significantly altered from an historic standard. Because of the WUI’s high visibility, treatment prescriptions must minimize ecological damage. This should increase the probability of reduced fire behavior and severe fire effects on the ecosystem but may result in little if any protection for structures.
11. To reduce the fire hazard to structures within the wildland-urban interface, build with fire resistant materials and develop an open-stand, structured landscape with minimal surface fuels within 100 feet of the structure.
12. Consider more fall prescribed burning, coordinated with public education about the role of fire in ecosystem integrity.
13. Continue to expand the Prescribed Natural Fire Program.

 **Forest Ecology and Management** **Recommendations**

1. The Bitterroot Forest should manage timber primarily to maintain or restore properly functioning ecosystems and protect life and private property. It should anticipate potential impacts of climate change and plan its forest management practices accordingly.
2. To the extent possible, the Forest Service should use natural and/or prescribed fire to help attain ecological restoration objectives.
3. Wood products should be a secondary benefit of maintaining and restoring forest ecosystems.
4. Whenever possible, the Bitterroot Forest should include restoring rare habitats along with managing fuels and commercial forest vegetation. Examples would include using prescribed fire to regenerate aspen or planting rust-resistant white bark pine on historical white bark pine sites.
5. The Bitterroot Forest should seek opportunities to better fund costly restoration projects and to find environmentally sound uses for less economically viable products, such as woody biomass, especially in and around homes and private property.
6. Specific consideration should be given to managing the vast areas that have burned under extreme fire intensities in recent decades. Forest management should seek opportunities to diversify forest age and size class composition through a combination of reforestation, pre-commercial thinning, fuels treatment, and/or prescribed burning, especially in areas where wildfires have transformed what were once productive timber sites into areas that are currently void of trees.
7. Vegetation should be managed to improve overall habitat diversity and create landscape conditions that occur within the natural range of variation.
8. Forest managers should protect existing old-growth habitat and manage vegetation to accelerate the replacement of ecologically functioning old-growth where there is a deficit of existing old-growth or where old-growth habitat is likely to be lost to normal forest succession and/or wildfire in the immediate future.
9. The Forest Service should justify the rationale for entering any old-growth habitat and avoid entering any designated “Old-Growth” except where absolutely necessary. Definitions for old-growth in Green, et al. should be used only when recruiting stands to meet minimum old-growth acreage requirements.
10. The Bitterroot Forest should develop a comprehensive forest resource monitoring strategy. The strategy should focus on how well implementation of Forest projects meets the goals of the Forest Land and Resource Management Plan and the Purpose and Need as stated in project environmental documents. The monitoring strategy should address the following questions: (1) Were resource treatments, as enumerated in environmental documents, actually implemented?; (2) Did the results of treatments, as identified in environmental documents, create the Desired Future Condition (DFC)?; (3) If the DFC was attained, were assumptions validated and were the desired outcomes achieved for all resources and were they the result of project implementation?; and (4) If all expected outcomes are not attained, what adaptations or modifications to management are necessary to achieve the desired results in the future?
11. With the assistance of interest groups, the Forest should prioritize work and/or request additional funding to carry out the comprehensive monitoring strategy recommended above. The Forest should seek assistance from industry, conservation interests, and the academic community to help collect information and do the work necessary to carry out the monitoring strategy.
12. The Forest must test and validate the assumptions used in its CBA program (preferably using research scientists). With the scope, scale, and length of time associated with implementing a CBA program, there are significant risks of managing large landscapes using false assumptions and waiting for results until all projects are complete.
13. The Forest must quantify the costs and fully fund the restoration and monitoring work identified for all activities associated with a given project. For example, if non-commercial fuel reduction, road decommissioning and reclamation, ongoing road maintenance, and post-project monitoring and reclamation are essential components of a project, the project should not be considered complete until all work is complete.
14. The Forest should recognize that “forest health” includes representative amounts of diseased, dying, and dead trees. The Forest should ensure that adequate representation of such habitat conditions exist and are widely distributed across the landscape.
15. The Forest should manage resources in the WUI to minimize loss to health, safety, and private property while ensuring properly functioning ecosystems and protecting and maintaining important fish and wildlife habitat and critical watershed values.
16. The BNF and the BFC should work together to help inform valley residents that forest restoration is less about what we take from the forest and more about what we leave behind.

**Recreation Recommendations**

1. Recreation on the Forest should be considered a core value of the Bitterroot Forest and should be planned for and managed accordingly.
2. Our collaborative supports the existing Travel Plan; forest management activities should align with the Travel Plan.
3. Implement a Forest and County-wide pro-active recreation planning strategy to meet facility, access, and service demands of a growing population.
4. The Forest and County should identify areas where they can work across public/private land boundaries to increase and disperse recreation opportunities, such as improving trail linkage and recreation access.
5. Provide the opportunity for a diversity of recreational activities, including but not limited to wildlife watching, hiking and backpacking, snowmobiling, mountain biking, hunting, rafting, 4-wheeling, climbing, fishing, skiing, and equestrian activities.
6. Forest Service budgets should provide sufficient funds for the maintenance of infrastructure, including roads; trails; and facilities, including adding bearproof garbage receptacles in those campgrounds that do not already have them.
7. Management of recreation should minimize impacts on other important natural resources in the Forest.
8. Prioritize private recreational use over commercial, for-profit recreation. Allow for reductions in commercial permits when competition begins to degrade or exclude private use.
9. Forest should work with users to develop plans and regulations for new recreation activities and technologies, such as e-bikes. Those plans and regulations should anticipate and avoid negative impacts on Forest resources and conflicts with other recreation users.
10. Signage is important to foster education and promote adherence to regulations and laws.
11. Maintenance and distribution of roads affect recreational opportunities—poor road conditions limit access. Therefore, recreational use of the Forest’s road system should be integral to all road management decisions.
12. All Forest management should take into consideration current and future recreational access and activities.
13. Recreation activities should not exacerbate climate change and its effects.

**Special Habitats, Habitat Features and Habitat Conditions Recommendations**

1. Give priority to sustaining high quality riparian areas, wetlands, and bogs to the extent possible during any ground-disturbing activity.
2. Meet or exceed Forest Plan Standards for snags and downed wood at the local scale. Snags and downed wood can be clumped in patches across the landscape and do not need to be evenly distributed across the Forest or within specific vegetation types.
3. Avoid management activities that reduce the amount or quality of rare or declining habitats, such as sagebrush. Prescribe vegetation treatments that help mitigate loss or restore these habitats wherever possible.
4. Correct human-made barriers to animal movement, such as culverts, between important habitats. For new projects, assess potential impacts to animal movement and mitigate for potential adverse impacts by, for example, installing arch culverts at critical stream crossings.
5. Conduct an invasive species assessment for all landscape-level project plans and include mitigation measures to correct potential problems associated with invasive species.
6. For prescribed burning or fuels treatment projects, develop prescriptions that protect rare habitats. Establish or restore rare habitats that may be lost due to management or normal plant succession.
7. To the extent possible, retain all or nearly all old/large trees. Retain and expand on existing relict trees, old forests, and post-disturbance large snags and down logs in these types.
8. Forest managers should protect existing old-growth habitat and manage vegetation to accelerate the replacement of ecologically functioning old growth where there is a deficit of existing old growth or where old-growth habitat is likely to be lost to normal forest succession and/or wildfire in the near future.
9. Management actions in old growth should strive towards preserving secondary old-growth structural components such as snags and down logs, characteristics that add crucially to the complexity and functionality of old growth and on which many animals associated with old growth rely for denning, nesting, or cover.
10. Any prescriptive vegetation management in old growth should not decrease old-growth percentages in any 3rd order drainages in a given project area.
11. The Forest should justify the rationale for entering any old-growth habitat and avoid any designated old growth except where absolutely necessary. Definitions for old growth in Green et al. should only be used when recruiting stands to meet minimum old growth acreage requirements.
12. The Forest should provide a greater emphasis and follow-up on monitoring. Effective monitoring is essential for tracking trends in the amount and quality of rare and declining habitats, especially old-growth forests. The Bitterroot Forest should initiate an aggressive rare habitat monitoring program that tracks the abundance and distribution of rare habitats through time and supplements such monitoring with statistically valid field verification.
13. Encourage the County to evaluate positive and/or negative consequences of activities on adjacent private land when soliciting comments from the county regarding landscape-level projects proposed by the Forest. Request that the County address impacts from private lands when they comment on potential Forest Service projects.

**Summary and Conclusion:**

We appreciate the opportunity to provide comments on your request for input on the Bitterroot Front Restoration Project. We agree in concept with your proposal in the context that past management has created vegetation conditions that deviate in undesirable ways from those that would have existed under more normal fire and other disturbance regimes. We also agree that management actions are necessary to improve the chances that fire suppression crews can more effectively fight wildfires in and around homes and private property in the Wildland Urban Interface (WUI). However, in order to be most effective and a wise investment of public funds, we agree with Cohen (2017) and believe that actions on National Forest System lands must be accompanied by similar vegetation treatments concurrent with the application of fire-wise home protection actions on adjacent or nearby private lands. This will require close coordination with local government and private landowners. Finally, we strongly urge you to conduct your project planning, implementation and monitoring using the approaches for landscape-scale based management as recommended by university and USDA Forest Service scientists (Churchill et al, 2013 and Hessburg et al, 2015). Using their approaches will not only alleviate many of our concerns, but will also be a very effective way to achieve the forest restoration objective that you desire, especially during this period of major climate change.

Thank you again for the opportunity to comment. Our goal is to use the best science in forest restoration actions and we are willing to work with members of the general public to help achieve that end. We look forward to continued involvement on this and other projects in the future.

Sincerely,

Skip Kowalski and Kirk Thompson (Co-Chairs)

Bitterroot Forest Collaborative

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