

August 24, 2025

Objection against the Draft Decision Notice, FONSI, and
Environmental Assessment for the Cooke City Fuels and
Forest Health Project, Forest Service, Custer Gallatin
National Forest, Gardiner Ranger District

Identification of Objectors:

Lead Objector: Michael Garrity, Director, Alliance for the
Wild Rockies (AWR)

PO Box 505

Helena, MT 59624;

Phone [406-410-3373](tel:406-410-3373).

And for

Sara Johnson

Native Ecosystems Council

PO Box 125

Willow Creek, MT 59760

And for

Steve Kelly, Director

Council on Wildlife and Fish

P.O. Box 4641

Bozeman, MT 59772

And for

Kristine Akland

Center for Biological Diversity

P.O. Box 7274

Missoula, MT 59807

kakland@biologicaldiversity.org

Signed for Objectors this 24th day of August 2025

/s/ Michael Garrity

Michael Garrity

Name of the Responsible Official, National Forest, Ranger

District where Project is Proposed:

The Responsible Official, Custer Gallatin National Forest Supervisor Matthew Jedra, has made available a Draft Decision Notice for the Cooke City Project and its associated Finding of No Significant Impact (FONSI). The Cooke City project area is in the Gardiner Ranger District of the Custer Gallatin National Forest (CGNF) and covers approximately 19,331 acres and in the Absaroka Beartooth Mountains. The project area stretches from Yellowstone National Park on the west, follows the Wyoming state line on the south, east of Colter Pass (Figure 1), along the Highway 212 corridor, and north to the Absaroka-Beartooth Wilderness boundary and Daisy Pass and Lulu Pass.

Description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project if applicable, how the objector believes the environmental analysis, Finding of No Significant Impact, and Draft Decision Notice (DDN) specifically violates law, regulation, or policy: The EA and DND are contained in the USFS webpage at:

<https://www.fs.usda.gov/r01/custergallatin/projects/57361>

The Gardiner Ranger District is planning to treat approximately 3,218 acres of National Forest System lands on the Gardiner Ranger District of the Custer Gallatin National Forest, using a variety of vegetation treatments aimed at improving forest health and resilience, and reducing fuel loading within the wildland urban interface surrounding the Cooke City and Silver Gate communities in Park County, Montana.

As a result of the Draft DN, individuals and members of the above mentioned groups would be directly and significantly affected by the logging and associated activities.

Appellants are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the CGNF). The individuals and members use the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

1. Objectors names and addresses:

Lead Objector Mike Garrity, Executive Director,

Alliance for the Wild Rockies
P.O. Box 505; Helena, MT 59624
Phone 406 410-3373

And

Sara Johnson
Native Ecosystems Council

P.O. Box 125
Willow Creek, MT 59760

2. Signature of Lead Objector:

Signed this 24th day of 2025 by Lead Objector,

/s/ Michael Garrity

3. Lead Objector: Michael Garrity, Alliance for the Wild
Rockies

4. Name of the Proposed Project, Responsible Official,
National Forest and Ranger District where Project is:

Cooke City Fuels and Forest Health Project; Custer Gallatin Forest Supervisor Matthew Jedra is the Responsible Official; The project is in the Gardiner Ranger District of the Custer Gallatin National Forest. Supervisor Jed chose the proposed action (alternative B) in the Draft Decision Notice and FONSI.

NOTICE IS HEREBY GIVEN that AWR objects pursuant to 36 CFR section 218 to the Responsible Official's adoption of the selected Alternative. As discussed below, the South Plateau Project as proposed violates the Clean Water Act, the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Gallatin Forest Plan and the Administrative Procedure Act (APA).

Location

The Cooke City project area covers approximately 19,331 acres in the Absaroka Beartooth Mountains. The project area stretches from Yellowstone National Park on the west, follows the Wyoming state line on the south, east of Colter Pass (Figure 1), along the Highway 212 corridor, and north to the Absaroka-Beartooth Wilderness boundary and Daisy Pass and Lulu Pass.

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5. Specific Issues Related to the Proposed Projects, including how Objectors believes the Environmental Analysis or Draft Record of Decision specifically violates Law, Regulation, or Policy: We included this under number 8 below.

Thank you for the opportunity to object on the Cooke City Project. Please accept this objection from me on behalf of the Alliance for the Wild Rockies, Native Ecosystems Council, Council on Wildlife and Fish, and Center for Biological Diversity (hereafter Alliance).

6. Suggested Remedies that would Resolve the Objection:

We recommend that the “No Action Alternative” be selected. We have also made specific recommendations after each problem.

7. Supporting Reasons for the Reviewing Office to Consider:

This landscape has very high wildlife values, including for the threatened grizzly bear, lynx, wolverines, white bark pine, big game species, and wildlife dependent upon

unlogged forests. The project area will be concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as lynx, grizzly bears, and wolverine. The public interest is not being served by this project.

Suggested Remedies to Resolve the Objection:

We recommend that the “No Action Alternative” be selected. We have also made specific recommendations after each problem.

Thank you for the opportunity to object.

NOTICE IS HEREBY GIVEN that, pursuant to 36 CFR Part 218, AWR objects to the Draft Decision Notice (DDN) and Finding of No Significant Impact (FONSI) with the legal notice published on July 11, 2025, including the Responsible Official’s adoption of proposed or selected Alternative.

Alliance is objecting to this project on the grounds that implementation of the Selected Alternative is not in accordance with the laws governing management of the

national forests such as the FLPMA, ESA, NEPA, NFMA, the Gallatin National Forest Forest Plan and the APA, including the implementing regulations of these and other laws, and will result in additional degradation in already degraded watersheds and mountain slopes, further upsetting the wildlife habitat, ecosystem and human communities. Our objections are detailed below.

If the project is approved as proposed, individuals and members of the above-mentioned groups would be directly and significantly affected by the logging and associated activities. Objectors are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the CGNF). The individuals and members use the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area,

the surrounding area, and would further degrade the watersheds and wildlife habitat.

Statements that Demonstrates Connection between Prior Specific Written Comments on the Particular Proposed Project and the Content of the Objection

We wrote in our comments:

Please see the attached paper Baker 2015, titled: “Are High-Severity Fires Burning at Much Higher Rates Recently than Historically in Dry-Forest Landscapes of the Western USA?”

Dr. Baker writes: “Programs to generally reduce fire severity in dry forests are not supported and have significant adverse ecological impacts, including reducing habitat for native species dependent on early-successional burned patches and decreasing landscape heterogeneity that confers resilience to climatic change.”

Dr. Baker concluded: “Dry forests were historically renewed, and will continue to be renewed, by sudden, dramatic, high-intensity fires after centuries of stability and lower-intensity fires.”

Based on Dr. Baker's paper, the proposed action will not meet the purpose and need of the project. Baker writes on p. 20:

"Management issues

The evidence presented here shows that efforts to generally lower fire severity in dry forests for ecological restoration are not supported."

Dr. Baker's paper is the best available science. Please explain why this project is not following the best available science. The Draft Decision Notice is in violation of NEPA.

Remedy, choose the No Action Alternative or write an EIS that complies with the law.

In "Fire Ecology in Rocky Mountain Landscapes" by William Baker, Dr. Baker writes on page 435, "...a prescribed fire regime that is too frequent can reduce species diversity (Laughlin and Grace 2006) and favor invasive species (M.A. Moritz and Odion 2004). Fire that is entirely low severity in ecosystems that historically experience some high-severity fire may not favor germination of fire-dependent species (M.A. Moritz and

Odion 2004) or provide habitat key animals (Smucker, Hutto, and Steele 2005).” Baker continues on page 436: “Fire rotations equal the average mean fire interval across a landscape and are appropriate intervals at which individual points or the whole landscape is burned. Composite fire intervals underestimate mean fire interval and fire rotation (chap 5) and should not be used as prescribed burning intervals as this would lead to too much fire and would likely lead to adversely affect biological diversity (Laughlin and Grace 2006).”

Please find (Laughlin and Grace 2006) attached.

Dr. Baker estimates the high severity fire rotation to be 135 - 280 years for lodgepole pine forests. (See page 162.). Baker writes on page 457-458 of Fire Ecology in Rocky Mountain Landscapes:

“Fire rotation has been estimated as about 275 years in the Rockies as a whole since 1980 and about 247 years in the northern Rockies over the last century, and both figures are near the middle between the low (140 years) and high (328 years) estimates for fire rotation for the Rockies under the HRV (chap. 10). These estimates suggest the since EuroAmerican settlement, fire control and other activities may have reduced fire somewhat in

particular places, but a general syndrome of fire exclusion is lacking. Fire exclusion also does not accurately characterize the effects of land users on fire or match the pattern of change in area burned at the state level over the last century (fig 10.9). In contrast, fluctuation in drought linked to atmospheric conditions appear to match many state-level patterns in burned area over the last century. Land uses that also match fluctuations include logging, livestock grazing, roads and development, which have generally increased flammability and ignition at a time when the climate is warming and more fire is coming.”

*Schoennagel et al (2004) states: “High-elevation subalpine forests in the Rocky Mountains typify ecosystems that experience infrequent, high-severity crown fires []. . . The most extensive subalpine forest types are composed of Engelmann spruce (*Picea engelmannii*), sub-alpine fir (*Abies lasiocarpa*), and lodgepole pine (*Pinus contorta*), all thin-barked trees easily killed by fire. Extensive stand-replacing fires occurred historically at long intervals (i.e., one to many centuries) in subalpine forests, typically in association with infrequent high-pressure blocking systems that*

promote extremely dry regional climate patterns.” Please find Schoennagel et al (2004) attached.

Schoennagel et al (2004) states: “it is unlikely that the short period of fire exclusion has significantly altered the long fire intervals in subalpine forests. Furthermore, large, intense fires burning under dry conditions are very difficult, if not impossible, to suppress, and such fires account for the majority of area burned in subalpine forests.

Schoennagel et al (2004) states: “Moreover, there is no consistent relationship between time elapsed since the last fire and fuel abundance in subalpine forests, further undermining the idea that years of fire suppression have caused unnatural fuel buildup in this forest zone.”

Schoennagel et al (2004) states: “No evidence suggests that spruce–fir or lodgepole pine forests have experienced substantial shifts in stand structure over recent decades as a result of fire suppression. Overall, variation in climate rather than in fuels appears to exert the largest influence on the size, timing, and severity of

fires in sub- alpine forests []. We conclude that large, infrequent stand replacing fires are ‘business as usual’ in this forest type, not an artifact of fire suppression.”.

Schoennagel et al (2004) states: “Contrary to popular opinion, previous fire suppression, which was consistently effective from about 1950 through 1972, had only a minimal effect on the large fire event in 1988.

Reconstruction of historical fires indicates that similar large, high-severity fires also occurred in the early 1700s. Given the historical range of variability of fire regimes in high-elevation subalpine forests, fire behavior in Yellowstone during 1988, although severe, was neither unusual nor surprising.”

Schoennagel et al. (2004) states: “Mechanical fuel reduction in sub-alpine forests would not represent a restoration treatment but rather a departure from the natural range of variability in stand structure.”

Schoennagel et al (2004) states: “Given the behavior of fire in Yellowstone in 1988, fuel reduction projects probably will not substantially reduce the frequency, size, or severity of wildfires under extreme weather conditions.”

Schoennagel et al (2004) states: “The Yellow-stone fires in 1988 revealed that variation in fuel conditions, as measured by stand age and density, had only minimal influence on fire behavior. Therefore, we expect fuel-reduction treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size, given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not re-store subalpine forests, because they were dense historically and have not changed significantly in response to fire suppression. Thus, fuel-reduction efforts in most Rocky Mountain subalpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure outside the historic range of variability.”

Please find Schoennagel et al (2004) attached.

Please see the following article:

Montana researchers urge towns to focus on wildfire preparation

<https://missoulacurrent.com/research-wildfire-preparation/>

Laura Lundquist

(Missoula Current) For more than a decade, a small group of scientists have been trying to convince people that fireproofing their homes is far more effective than logging the forest when it comes to surviving wildfire. But few people are listening.

In mid-December, six researchers published a paper in the Proceedings of the National Academy of Sciences journal warning that communities across the nation, but particularly those in the West, aren't prepared to survive an urban conflagration such as the one that devastated Lahaina, Hawaii, in August.

The paper, titled "Wildland-urban fire disasters aren't actually a wildfire problem," points out that, since 2016, communities from Lahaina to Gatlinburg, Tenn., that have lost hundred of homes to fires have certain things in common: the fires occurred under extreme weather conditions - high winds and persistent drought - and most of the structures weren't fire-resistant.

"These problem fires were defined as an issue of wildfires that involved houses. In reality, they are urban fires initiated by wildfires. That's an important distinction - and one that has big repercussions for how we prepare ourselves for future fires," the authors wrote.

The authors included three researchers from the Forest Science and Fire Sciences laboratories of the U.S. Forest

Service Rocky Mountain Research Station in Missoula and one from Headwaters Economics in Bozeman.

In a 2014 paper in the Proceedings of the National Academy of Science, some of the same authors developed a community risk assessment that put the focus on improving the security of individual homes in a community, not the forest around them.

The emphasis is placed on modifying the house and the home ignition zone, a region within 100 feet of a house where debris and vegetation should be eliminated or minimized to reduce the chance of fire getting close to the house.

The reason that urban conflagrations begin and spread is because wind pushes embers and heat from one unprotected building to another, overwhelming fire departments that normally train to fight fire in just one building. Conditions are made worse when buildings are close together, because radiant heat becomes a bigger factor, spreading fire quicker.

“Reducing the likelihood that a home will ignite interrupts the disaster sequence by enabling effective structure protection. New construction siting, design, construction materials, and landscaping requirements should take wildfire potential into account,” the authors wrote in the December paper.

One of the paper's authors, Jack Cohen, is a fire-behavior analyst and heat transfer engineer who has spent 40 years investigating wildfires, particularly those that are linked to incidents where hundreds of homes burned. He has spent at least the past decade writing papers and giving talks about the need to focus on making homes less susceptible to wildfires, which are a natural process, especially in the arid West.

When asked why the researchers decided to submit the recent article that seeks to drum home points they already promoted a decade ago, Cohen said cities and agencies have done very little during that time period to put their recommendations into place.

"What prompted us this time was the Lahaina urban conflagration that was associated with a grassfire. It may be a repeated message on our part, but it's not being received very well. Not much has changed," Cohen said. "The federal and state agencies still don't get it - they're still defining the problem as a wildfire control problem."

Since the 2014 paper, Cohen and other researchers have had to just watch as town after town has burned terribly but predictably, as if no one has read their research. In Gatlinburg and Pigeon Forge, Tenn., 2,460 buildings burned in a 2016 fire; in 2018, the Camp Fire led to the loss of almost 19,000 buildings in Paradise, Calif.; in December 2021, 1,084 buildings burned in Superior and Louisville, Colo. from a grass fire; and in November

2021, a grassfire sparked fires in 23 homes in Denton, Mont.

Each wildfire had very little connection to most of the burning buildings, Cohen said. A wildfire is the source of initial ignition, but from that point on, it's a series of structure fires that lead to more structure fires. For example, with the Four Mile Canyon Fire in Boulder, Colo., the state of Colorado and the Forest Service had completed a number of fuel treatments nearby that they touted as protective. But high winds carried fire brands to ignite the houses far from the fire. Cohen found that while 168 houses burned, a lot of vegetation around the houses didn't, "so the wildfire didn't sweep through town."

"In the past five years, a number of incidents with more than 100 houses burning have been initiated by grass fires, which burn quickly. The grass fires pass through and are gone while the community continued to burn," Cohen said. "What I've found, particularly over the past five or six years, is that extreme wildfire is not dependent on closed-canopy conifers that produce big flames. The only time these urban disasters occur is under extreme conditions. That typically means it's very windy."

Nothing about the Lahaina Fire surprised Cohen. Not even the overblown claims that a wildfire "roared through and destroyed the town." Again, the wildfire was over before the town really started to burn. The fire started as a grassfire fanned by high winds, and had Lahaina not

been there, the fire would have burned through the buffel grass and guinea grass within a matter of minutes before it died out on the beach.

But Lahaina was there, a high-density community with several blocks of multi-story, largely-connected wooden structures. That configuration caused buildings to catch fire either due to burning embers flying from other buildings or from catching fire due to the overwhelming heat from nearby buildings.

“The ignition initiated where the grassfire came down, and that was it - it was a conflagration,” Cohen said.

“You don’t want to be in a high-density community when you can’t control the fire. Thirteen of the 26 fatalities in the 1991 Oakland Hills Fire occurred in the street when two-story buildings were burning on both sides of the street and the road became blocked. The heat was untenable.”

One house in Lahaina stood untouched and was dubbed “the miracle house.” But Cohen said it was just a good example of the points he and his fellow authors have been trying to communicate about defensible space and being fire-adapted. The owners had recently renovated the house with a nonflammable roof. It had wood walls, but the nearest building was about 30 feet away - far enough to prevent radiant heat from starting a fire - and there was little debris on the grounds or the house to actively spread the fire.

“The home ignition zone works,” Cohen said. “The home ignition zone came out of the modeling I did and then the crown fire experiments I did with wood walls to show the distance, the proximity required to produce an ignition was realistic. At the same time, California was cutting 300-foot clearances around communities, which means nothing to (airborne) burning embers, but it’s way over (what’s required) for radiant heat exposure.”

Cohen and his colleagues hope their latest paper prompts more action from local governments. Cohen is hoping Missoula County can do a better job when it updates its Wildfire Protection Plan in the near future.

But more than likely, Cohen said, they’ll be writing a similar paper in another few years, trying to make politicians and the public understand. It doesn’t help that they’re fighting some in their own agency, the Forest Service, who insist that logging, not home modification, will save communities.

“Fire is inevitable. But nobody’s figuring it out,” Cohen said. “We’re starting from the presumption that it’s wildfire that spreads through a community that lays it to waste. We even have the agencies responding in that fashion by being obsessed with this notion of wildfire control. So they do fuel treatments to have safe firefighting. That’s not only counter ecologically, it doesn’t work.”

***Contact reporter Laura Lundquist
at lundquist@missoulacurrent.com.***

Please find, “Wildland-urban fire disasters aren’t actually a wildfire problem,” by Calkin et al. 2023 attached. Calkin et al. 2024 found that to protect homes from wildfire we have to harden homes, not cut and burn forests.

The project area should be within 100 feet of homes not on Forest Service and BL:M lands unless a home is within 100 feet of Forest Service and BL:M lands. The purpose and need are not based on the best available science and is in violation of NEPA, NFMA and the APA.

The Forest Service responded:

The effectiveness of the Proposed Action to meet the Need for the Proposal is analyzed and detailed in the Fire and Fuels Effects Analysis. The Methodology section discusses the temporal bounds and limitations of the model assumptions.

The proposed action seeks to exclude or reduce the probability of stand replacing fires within the wildland urban interface to provide for defensible space, increase the safety of the public and firefighters and to reduce the probability of adverse impacts to communities when wildfires occur. (See Need for the Proposal, pg. 10 of the

Environmental Assessment) Project activities may support the return of fire's natural role to the landscape by providing defensible space to highly valued resources and assets. Please see the Fire and Fuels Effects Analysis for the analysis and disclosure of the project's effects on fire behavior and fuels characteristics.

Project activities directed by the Agency will occur only on public lands. Vegetation treatments on private lands within the project area are outside Agency's control. Private land treatments and effects are disclosed in the Fire and Fuels Effects Analysis in the Cumulative Effects of the Proposed Action section.

This is a violation of NEPA, NFMA, the APA and the ESA. The project will harm habitat for fish and wildlife and is therefore not meeting the purpose and need of the Gallatin Forest Plan.

NEPA requires disclosure of impact on “the human environment.” Climate risk presents important adverse impacts on cultural, economic, environmental, and social aspects of the human environment. – people, jobs, and the economy – adjacent to and near the project area.

Challenges in predicting responses of individual tree species to climate are a result of species competing under a never-before-seen climate regime – one forests may not have experienced before either.

In an uncertain future of rapid change and abrupt, unforeseen transitions, adjustments in management approaches will be necessary and some actions will fail. However, it is increasingly evident that the greatest risk is posed by continuing to implement strategies inconsistent with and not informed by current understanding of our novel future....

Achievable future conditions as a framework for guiding forest conservation and management, Forest Ecology and Management 360 (2016) 80–96, S.W. Golladay et al.
(Please, find attached)

Stands are at risk of going from forest to non-forest, even without the added risk of “management” as proposed in the project area. The project is currently in violation of NEPA, NFMA, and the APA.

REMEDY

Choose the No Action alternative or pull the draft decision and write an EIS that follow all laws and requirements in the Forest Plan.

Climate Change

We wrote in our comments:

We believe that best available science shows that

Commercial Logging does not reduce the threat of Forest Fires. What best available science supports the action alternative?

The NEPA requires a “hard look” at climate issues, including cumulative effects of the “treatments” in the proposed project when added to the heat, drought, wind and other impacts associated with increased climate risk. Regeneration/Restocking failure following wildfire, prescribed fire and/or mechanical tree-killing has not been analyzed or disclosed. There is a considerable body of science that suggests that regeneration following fire is increasingly problematic.

NEPA requires disclosure of impact on “the human environment.” Climate risk presents important adverse impacts on cultural, economic, environmental, and social aspects of the human environment. – people, jobs, and the economy – adjacent to and near the project area.

Challenges in predicting responses of individual tree species to climate are a result of species competing under a never-before-seen climate regime – one forests may not have experienced before either.

In an uncertain future of rapid change and abrupt, unforeseen transitions, adjustments in management approaches will be necessary and some actions will fail. However, it is increasingly evident that the greatest risk is posed by continuing to implement strategies inconsistent with and not informed by current understanding of our novel future....

*Achievable future conditions as a framework for guiding forest conservation and management, Forest Ecology and Management 360 (2016) 80–96, S.W. Golladay et al.
(Please, find attached)*

Stands are at risk of going from forest to non-forest, even without the added risk of “management” as proposed in

the project area. The project is currently is violation of NEPA, NFMA, and the APA.

It is not clear how vast acres of national forest lands can be intensively manipulated without a single wildlife management objective identified. This means that the agency cannot be meeting the NFMA requirements to maintain a diversity of wildlife. And it also means that the stated purpose and need is invalid, and a violation of the NEPA, because vegetation and fuels management have a direct impact on wildlife, which means that wildlife management also has to be included as a purpose and need. In effect, the purpose and need of the project is to remove wildlife habitat, but this is never identified to the public, in violation of the NEPA.

The agency is violating the NEPA by using vague, un-measureable terms to rationalize the proposed logging to the public. How can the public measure “resiliency?” What are the specific criteria used to define resiliency, and what are the ratings for each proposed logging unit before and after treatment? How is the risk of fire as affected by the project being measured so that the public can understand whether or not this will be effective? How is forest health to be measured so that the public can see that this is a valid management strategy? What specifically constitutes a diversity of age classes, how is this to be measured, and how are proposed changes measured as per diversity? How are diversity measures related to wildlife (why is diversity need-ed for what

species)? If the reasons for logging cannot be clearly identified and measured for the public, the agency is not meeting the NEPA requirements for transparency.

Please find attached the paper by Faison et al. 2023 titled, “The importance of natural forest stewardship in adaptation planning in the United States.” They “argue that expensive management interventions are often unnecessary, have uncertain benefits, or are detrimental to many forest attributes such as resilience, carbon accumulation, structural complexity, and genetic and biological diversity. Natural forests (i.e., those protected and largely free from human management) tend to develop greater complexity, carbon storage, and tree diversity over time than forests that are actively managed; and natural forests often become less susceptible to future insect attacks and fire following these disturbances. Natural forest stewardship is therefore a critical and cost effective strategy in forest climate adaptation.”

Faison et al. 2023 shows that the project is not meeting the purpose and need of the project. Please find Faison et al. 2023 attached.

The Forest Service responded to our comments in violation of NEPA. The project does not meet the purpose and need of the project. Please see the attached paper by Baker et al. 2023. This landmark study found a pattern of

"Falsification of the Scientific Record" in government-funded wildfire studies.

This unprecedented study was published in the peer-reviewed journal *Fire*, exposing a broad pattern of scientific misrepresentations and omissions that have caused a "falsification of the scientific record" in recent forest and wildfire studies funded or authored by the U.S. Forest Service with regard to dry forests of the western U.S. Forest Service related articles have presented a falsified narrative that historical forests had low tree densities and were dominated by low-severity fires, using this narrative to advocate for its current forest management and wildfire policies.

However, the new study comprehensively documents that a vast body of scientific evidence in peer-reviewed studies that have directly refuted and discredited this narrative were either misrepresented or omitted by agency publications. The corrected scientific record, based on all of the evidence, shows that historical forests were highly variable in tree density, and included "open" forests as well as many dense forests. Further, historical wildfire severity was mixed and naturally included a substantial component of high-severity fire, which creates essential snag forest habitat for diverse native wildlife species, rivaling old-growth forests.

These findings have profound implications for climate mitigation and community safety, as current forest policies that are driven by the distorted narrative result in forest management policies that reduce forest carbon and increase carbon emissions, while diverting scarce federal resources from proven community wildfire safety measures like home hardening, defensible space pruning, and evacuation assistance.

The Forest Service Responded:

The Cooke City EA addressed carbon in the Other Resources section under Carbon and a Cooke City Fuels and Forest Health Carbon Effects Analysis was completed and is available in the project record.

Additionally, each specialist considered carbon and long term weather patterns in their effects analysis report as it relates to their resource which are available in the project record. Also the Forest Plan's forested vegetation desired conditions 01, 02, 03, and 04 provide direction on how to best position the forests within the project area to respond to the potential stressors of a changing climate and the treatments addressed in the proposed action are consistent with the Forest Plan components and are moving towards these desired conditions, for more details see the "Changes to Long-term Weather Patterns" section in the Silviculture Report.

The EA does not analyze or disclose the body of science that implicates logging activities as a contributor to reduced carbon stocks in forests and increases in greenhouse gas emissions. The EA fails to provide estimates of the total amount of carbon dioxide (CO₂) or other greenhouse gas emissions caused by FS management actions and policies—forest-wide, regionally, or nationally. Agency policymakers seem comfortable maintaining a position that they need not take any leadership on this issue, and obfuscate via this EA to justify their failures.

The best scientific information strongly suggests that management that involves removal of trees and other biomass increases atmospheric CO₂. Unsurprisingly the EA doesn't state that simple fact.

The Custer Gallatin National Forest has not yet accepted that the effects of climate risk represent a significant issue, and eminent loss of forest resilience already, and a significant and growing risk into the “foreseeable future?”

It is now time to speak honestly about unrealistic expectations relating to desired future condition. Forest managers have failed to disclose that at least five common tree species, including aspens and four conifers, are at great

risk unless atmospheric greenhouse gases and associated temperatures can be contained at today's levels of concentration in the atmosphere. This cumulative ("reasonably foreseeable") risk must not continue to be ignored at the project-level, or at the programmatic (Forest Plan) level.

Global warming and its consequences may also be effectively irreversible which implicates certain legal consequences under NEPA and NFMA and ESA (e.g., 40 CFR § 1502.16; 16 USC §1604(g); 36 CFR §219.12; ESA Section 7; 50 CFR §§402.9, 402.14). All net carbon emissions from logging represent "irretrievable and irreversible commitments of resources."

It is clear that the management of the planet's forests is a nexus for addressing this largest crisis ever facing humanity. Yet the EA and Draft Decision Notice fails to even provide a minimal quantitative analysis of project- or agency-caused CO₂ emissions or consider the best available science on the topic. This is immensely unethical and immoral. The lack of detailed scientific discussions in the EA and Draft Decision Notice concerning climate change is far more troubling than the document's failures on other topics, because the consequences of unchecked

climate change will be disastrous for food production, sea level rise, and water supplies, resulting in complete turmoil for all human societies. This is an issue as serious as nuclear annihilation (although at least with the latter we're not already pressing the button).

The EA provided a pittance of information on climate change effects on project area vegetation. The EA provides no analysis as to the veracity of the project's Purpose and Need, the project's objectives, goals, or desired conditions. The FS has the responsibility to inform the public that climate change is and will be bringing forest change. For the Galton project, this did not happen, in violation of NEPA.

The EA fails to consider that the effects of climate change on the project area, including that the "desired" vegetation conditions will likely not be achievable or sustainable. The EA fails to provide any credible analysis as to how realistic and achievable its desired conditions are in the context of a rapidly changing climate, along an unpredictable but changing trajectory.

The Forest Plan does not provide meaningful direction on climate change. Nor does the EA acknowledge pertinent

and highly relevant best available science on climate change. This project is in violation of NEPA.

The EA does not analyze or disclose the body of science that implicates logging activities as a contributor to reduced carbon stocks in forests and increases in greenhouse gas emissions. The EA fails to provide estimates of the total amount of carbon dioxide (CO₂) or other greenhouse gas emissions caused by FS management actions and policies—forest-wide, regionally, or nationally. Agency policy-makers seem comfortable maintaining a position that they need not take any leadership on this issue, and obfuscate via this EA to justify their failures.

The best scientific information strongly suggests that management that involves removal of trees and other biomass increases atmospheric CO₂. Unsurprisingly the FSEIS doesn't state that simple fact.

The EA fails to present any modeling of forest stands under different management scenarios. The FS should model the carbon flux over time for its proposed stand management scenarios and for the various types of vegetation cover found on the CGNF.

The EA also ignores CO₂ and other greenhouse gas emissions from other common human activities related to forest management and recreational uses. These include emissions associated with machines used for logging and associated activities, vehicle use for administrative actions, and recreational motor vehicles. The FS is simply ignoring the climate impacts of these management and other authorized activities.

The Committee of Scientists, 1999 recognize the importance of forests for their contribution to global climate regulation. Also, the 2012 Planning Rule recognizes, in its definition of Ecosystem services, the “Benefits people obtain from ecosystems, including: (2) Regulating services, such as long term storage of carbon; climate regulation...”

We have no more time to prevaricate, and it's not a battle we can afford to lose. We each have a choice: submit to status quo for the profits of the greediest 1%, or empower ourselves to limit greenhouse gas emissions so not just a couple more generations might survive.

The District Court of Montana ruled in Case 4:17-cv-00030- BMM that the Federal government did have to

evaluate the climate change impacts of the federal government coal program.

In March 2019, U.S. District Judge Rudolph Contreras in Washington, D.C., ruled that when the U.S. Bureau of Land Management (BLM) auctions public lands for oil and gas leasing, officials must consider emissions from past, present and foreseeable future oil and gas leases nationwide. The case was brought by WildEarth Guardians and Physicians for Social Responsibility.

In March of 2018 the Federal District Court of Montana found the Miles City (Montana) and Buffalo (Wyoming) Field Office's Resource Management Plans unlawfully overlooked climate impacts of coal mining and oil and gas drilling. The case was brought by Western Organization of Resource Councils, Montana Environmental Information Center, Powder River Basin

Resource Council, Northern Plains Resource Council, the Sierra Club, and the Natural Resources Defense Council.

The project is in violation of NEPA, NFMA, the APA, the ESA for not examining the impacts of the project on climate change. The project will eliminate the forest in the

project area. Forests absorb carbon. The project will destroy soils in the project area. Soils are carbon sinks.

Please see the following article that ran in the Missoulian on March 11, 2019.

Fire study shows landscapes such as Bitterroot's Sapphire Range too hot, dry to restore trees

ROB CHANEY rchaney@missoulian.com Mar 11, 2019

Burned landscapes like this drainage in the Sapphire Mountains hasn't been able to grow new trees since the Valley Complex fire of 2000, due to lack of soil moisture, humidity and seed trees, as well as excess heat during the growing season. University of Montana students Erika Berglund and Lacey Hankin helped gather samples for a study showing tree stands are getting replaced by grass and shrubs after fire across the western United States due to climate change.

Courtesy Kim Davis



Fire-scarred forests like the Sapphire Range of the Bitterroot Valley may become grasslands because the growing seasons have become

too hot and dry, according to new research from the University of Montana.

“The drier aspects aren’t coming back, especially on north-facing slopes,” said Kim Davis, a UM landscape ecologist and lead investigator on the study. “It’s not soil sterilization. Other vegetation like grasses are re-sprouting. It’s too warm. There’s not enough moisture for the trees.”

Davis worked with landscape ecologist Solomon Dobrowski, fire paleoecologist Philip Higuera, biologist Anna Sala and geoscientist Marco Maneta at UM along with colleagues at the U.S. Forest Service and University of Colorado-Boulder to produce the study, which was released Monday in the Proceedings of the National Academy of Sciences journal.

“What’s striking is if you asked scientists two decades ago how climate warming would play out, this is what they expected we’d see,” Higuera said. “And now we’re starting to see those predictions on the impact to ecosystems play out.”

The study concentrated on regrowth of Ponderosa pine and Douglas fir seedlings in Montana, Idaho, Colorado, New Mexico,

Arizona and northern California. Field workers collected trees from 90 sites, including 40 in the northern Rocky Mountains, scattered within 33 wildfires that had occurred within the past 20 years.

“We did over 4,000 miles of road-tripping across the West, as well as lots of miles hiking and backpacking,” Davis said. The survey crews brought back everything from dead seedlings to 4-inch-diameter tree rings; nearly 3,000 samples in total. Then they analyzed how long each tree had been growing and what conditions had been when it sprouted.

Before the 1990s, the test sites had enough soil moisture, humidity and other factors to recruit new seedlings after forest fires, Dobrowski said.

“There used to be enough variability in seasonal conditions that seedlings could make it across these fixed thresholds,” Dobrowski said. “After the mid-‘90s, those windows have been closing more often. We’re worried

we'll lose these low-elevation forests to shrubs or grasslands. That's what the evidence points to."

After a fire, all kinds of grasses, shrubs and trees have a blank slate to recover. But trees, especially low-elevation species, need more soil moisture and humidity than their smaller plant cousins. Before the mid-90s, those good growing seasons rolled around every three to five years. The study shows such conditions have evaporated on virtually all sites since 2000.

"The six sites we looked at in the Bitterroots haven't been above the summer humidity threshold since 1997," Higuera said. "Soil moisture hasn't crossed the threshold since 2009."

The study overturns some common assumptions of post-fire recovery. Many historic analyses of mountain forests show the hillsides used to hold far fewer trees a century ago, and have become overstocked due to the efforts humans put at controlling fire in the woods. Higuera explained that some higher elevation forests are returning to their more sparse historical look due to increased fires.

“But at the lower fringes, those burn areas may transition to non-forest types,” Higuera said, “especially where climate conditions at the end of this century are different than what we had in the early 20th Century.”

The study also found that soil sterilization wasn’t a factor in tree re-growth, even in the most severely burned areas. For example, the 2000 Sula Complex of fires stripped forest cover in the southern end of the Bitterroot Valley. While the lodgepole pine stands near Lost Trail Pass have recovered, the lower-elevation Ponderosa pine and Douglas firs haven’t.

Another factor driving regeneration is the availability of surviving seed trees that can repopulate a burn zone. If one remains within 100 meters of the burned landscape, the area can at least start the process of reseeding.

Unfortunately, the trend toward high-severity fires has reduced the once-common mosaic patterns that left some undamaged groves mixed into the burned areas.

Higuera said he hoped land managers could use small or prescribed fires to make landscapes more resilient, as well as restructure tree-planting efforts to boost the chances of heavily burned places.

Rob Chaney

Natural Resources & Environment Reporter

Natural Resources Reporter for The Missoulian.

Remedy: Choose the No Action Alternative. Revise the Forest Plan to take a hard look at the science of climate change. Alternatively, draft a new EIS for this project if the FS still wants to pursue it, which includes an analysis that examines climate change in the context of project activities and Desired

Conditions. Better yet, it's time to prepare an EIS on the whole bag of U.S. Government climate policies.

The NFMA requires in the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research findings, the FS must disclose the significant trend in post-fire regeneration failure. The forest has already experienced considerable difficulty restocking on areas that have been subjected to prescribed fire, clear-cut logging, post-fire salvage logging and other even-aged management "systems."

NFMA (1982) regulation 36CFR 219.27(C)(3) implements the NFMA statute, which requires restocking in five years.

Forest managers must analyze and disclose the fact that the Custer Gallatin National Forest can no longer “insure that timber will be harvested from the National Forest system lands only where...there is assurance that such lands can be restocked within five years of harvest?” (NFMA§6(g)(3)(E) (ii)).

The project goals and expectations are not consistent with NFMA’s “adequate restocking” requirement. Scientific research can no longer be ignored.

“At dry sites across our study region, seasonal to annual climate conditions over the past 20 years have crossed these thresholds, such that conditions have become increasingly unsuitable for regeneration. High fire severity and low seed availability further reduced the probability of post-fire regeneration. Together, our results demonstrate that climate change combined with high severity fire is leading to increasingly fewer opportunities for seedlings to establish after wildfires and may lead to ecosystem transitions in low-elevation ponderosa pine and Douglas-fir forests across the western United States.”

Forests are already experiencing emissions-driven deforestation on both the post-fire and post-logging acreage. Areas where the cumulative effects of wildfire, followed by salvage logging on the same piece of ground are error upon error, with decades of a routine that can rightfully be described as willful ignorance and coverup.

Where is the reference to restocking? Monitoring data and analysis? If monitoring has been done there is no disclosure documenting the scope and probability of post-fire regeneration failures in the project area. NFMA requires documentation and analysis that accurately estimates climate risks driving regeneration failure and deforestation – all characteristic of a less “resilient” forest.

“In the US Rocky Mountains, we documented a significant trend of post-fire tree regeneration, even over the relatively short period of 23 years covered in this analysis. Our findings are consistent with the expectation of reduced resilience of forest ecosystems to the combined impacts of climate warming and wildfire activity. Our results suggest that predicted shifts from forest to non-forested vegetation.” Evidence for declining forest resilience to wildfires under climate change, *Ecology Letters*, (2018) 21: 243–252, Stevens-Rumens et al. (2018).

The Forest Plan is based on assumptions largely drawn from our past that no longer hold true. These assumptions, made decades ago, must be challenged, and amended, where overwhelming evidence demonstrates a change of course is critical. It is time to take a step back, assess the present and future and make the necessary adjustments, all in full public disclosure to the Congress and the American people. Many acres of (conifers) In many areas, conifers haven't shown "resilience" enough to spring back from disturbance. Regeneration is already a big problem. (Emphasis added).

Both RPA and NFMA mandate long-range planning which impose numerous limitations on commodity production, including grazing, timber harvesting practices and the amount of timber sold annually.

These long-range plans are based on assumptions, which are based on data, expert opinion, public participation and other factors that all, well almost all, view from a historical perspective. Assumptions that drove forest planning guidance decades ago, when climate risk was not known as it is today, are obsolete today.

Present and future climate risk realities demand new assumptions and new guidance.

A proper reexamination of the assumptions relating to resilience and sustainability contained in the Forest Plan is necessary. Scientific research supporting our comments focus on important data and analysis. A full discussion and disclosure of the following is required: 1) trends in wildfires, insect activity and tree mortality, 2) past regeneration success/failure in the project area, and 3) climate-risk science – some of which is cited below. Our comments, and supporting scientific re- search clearly “demonstrates connection between prior specific written comments on the particu- lar proposed project or activity and the content of the objection...”

The project is in violation of NEPA, NFMA, the Forest Plan and the APA.

Sec. 6. of the National Forest Management Act states:

(g) As soon as practicable, ... the Secretary shall ... promulgate regulations, under the principles of the Multiple-Use, Sustained-Yield Act of 1960...

The regulations shall include, but not be limited to-

(3) specifying guidelines for land management plans developed to achieve the goals of the Program which-

(E) insure that timber will be harvested from National Forest System lands only where-

(i) soil, slope, or other watershed conditions will not be irreversibly damaged;

NFMA regulations at 36 C.F.R. § 219.27 (Management requirements) state:

(a) Resource protection. All management prescriptions shall—

(1) Conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land;

(b) Vegetative manipulation. Management prescriptions that involve vegetative manipulation of tree cover for any purpose shall--

(5) Avoid permanent impairment of site productivity and ensure conservation of soil and water resources;

The project-level, and programmatic-level (Forest Plan) fail to publicly disclose the current and future impacts of

climate risk to our national forests. NEPA requires cumulative effects analysis at the programmatic level, and at the project-level. The failure to assess and disclose all risks associated with vegetative-manipulation (slash and burn) units in the project area in the proper climate-risk context/scenario violates the NFMA, NEPA and the APA.

In the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research findings, NEPA analysis and disclosure must address the well-documented trend in post-fire regeneration failure. The project has already experienced difficulty restocking on areas that burned in the 1988 wildfire. NFMA (1982) regulation 36 CFR 219.27(c)(3) implements the NFMA statute, which requires adequate restocking in five years.

Given the forest's poor history of restocking success and its failure to employ the best available science, the adequacy of the site-specific and programmatic NEPA/NFMA process begs for further analysis and disclosure of the reality of worsening climate conditions which threaten – directly and cumulatively – to turn forest into non-forest-ed vegetation, or worse. The desired future condition described in the Purpose and Need, or in the Forest Plan is not deforestation.

The Forest Plan is based on assumptions largely drawn from our past. These assumptions must be challenged, and amended, where overwhelming evidence demonstrates a change of course is critically important. It is time to take a step back, assess the future and make the necessary adjustments, all in full public disclosure to the Congress and the American people.

The EA fails to acknowledge the likelihood that “...high seedling and sapling mortality rates due to water stress, competing vegetation, and repeat fires that burn young stands,” which will likely lead to a dramatic increase in non- forest land acres. Many acres of (conifers) trees already fail to regenerate. (Emphasis added). A map of these areas is required. In many areas, conifers haven’t shown “resilience” enough to spring back from disturbance.

Looking to the Future and Learning from the Past in our Na- tional Forests: Posted by Randy Johnson, U.S. Forest Service Research and Development Program, on November 1, 2016 at 11:00 AM <http://blogs.usda.gov/2016/11/01/looking-to-the-future-and-learning-from-the-past-in-our-national-forests/>

Excerpt:

“Forests are changing in ways they've never experienced before because today's growing conditions are different from anything in the past. The climate is changing at an unprecedented rate, exotic diseases and pests are present, and landscapes are fragmented by human activity often occurring at the same time and place.

When replanting a forest after disturbances, does it make sense to try to reestablish what was there before? Or, should we find re-plant material that might be more appropriate to current and future conditions of a changing environment?

Restoration efforts on U.S. Forest Service managed lands call for the use of locally adapted and appropriate native seed sources. The science-based process for selecting these seeds varies, but in the past, managers based decisions on the assumption that present site conditions are similar to those of the past.”

“This may no longer be the case.”

REMEDY

Choose the No Action Alternative or Forest Plan

Amendments are needed to establish standards and

guidelines which acknowledge the significance of climate risk to other multiple-uses. Amendments must not only analyze forest-wide impacts, but the regional, national and global scope of expected environmental changes. Based on scientific research, the existing and projected irretrievable losses must be estimated. Impacts caused by gathering climate risk (heat, drought, wind) and its symptoms, including wildfire, insect activity, and regeneration failure and mature tree mortality must be analyzed cumulatively.

The selected scientific research presented above is only a sampling of the growing body of evidence that supports the need to disclose the consequences of the proposed action in a proper context – a hotter forest environment, with more frequent drought cycles. This evidence brings into question the Purpose and Need for the project. It also requires the FS to reconsider the assumptions, goals and expected desired future condition expressed in the existing Forest Plan. Plan expectations must be amended at the programmatic level before proceeding with proposed project-level action(s). According to best available science, implementing the project will most likely accomplish the opposite of the desired future condition. We can adjust as we monitor and

find out more. However, to willfully ignore what we do know and fail to disclose it to the public is a serious breach of public trust and an unconscionable act. Climate risk is upon us. A viable alternative to the proposal is not only reasonable and prudent, but it is the right thing to do.

The draft decision is in violation of NEPA, NFMA, the ESA and the APA because the project will adversely affect biological diversity, is not following the best available science and the purpose and need will not work.

The NEPA requires a “hard look” at climate issues, including cumulative effects of the “treatments” in the proposed project when added to the heat, drought, wind and other impacts associated with increased climate risk. Regeneration/Restocking failure following wildfire, prescribed fire and/or mechanical tree-killing has not been analyzed or disclosed. There is a considerable body of science that suggests that regeneration following fire is increasingly problematic.

NEPA requires disclosure of impact on “the human environment.” Climate risk presents important adverse impacts on cultural, economic, environmental, and social aspects of the human environment. – people, jobs, and the economy – adjacent to and near the project area.

“Challenges in predicting responses of individual tree species to climate are a result of species competing under a never-before- seen climate regime – one forests may not have experienced before either.

In an uncertain future of rapid change and abrupt, unforeseen transitions, adjustments in management approaches will be necessary and some actions will fail. However, it is increasingly evident that the greatest risk is posed by continuing to implement strategies inconsistent with and not informed by current understanding of our novel future....

Achievable future conditions as a framework for guiding forest conservation and management, Forest Ecology and Management 360 (2016) 80–96, S.W. Golladay et al. (Please, find attached).

Stands are at risk of going from forest to non-forest, even without the added risk of “management” as proposed in the

project area. The project is currently in violation of NEPA, NFMA, and the APA.

Forests are already experiencing emissions-driven deforestation on both the post-fire and post-logging acreage. Areas where the cumulative effects of wildfire, followed by salvage logging on the same piece of ground are error upon error, with decades of a routine that can rightfully be described as willful ignorance and coverup.

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The project-level, and programmatic-level (Forest Plan) fail to publicly disclose the current and future impacts of climate risk to our national forests. NEPA requires cumulative effects analysis at the programmatic level, and at the project-level. The failure to assess and disclose all risks associated with vegetative-manipulation (slash and burn) units in the project area in the proper climate-risk context/scenario violates the NFMA, NEPA and the APA.

In the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research findings, NEPA analysis and disclosure must address the well-documented trend in post-fire regeneration failure. The project has already experienced difficulty restocking on areas that burned in the 1988 wildfire. NFMA (1982) regulation 36 CFR 219.27(c)(3) implements the NFMA statute, which requires adequate restocking in five years.

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reality of worsening climate conditions which threaten – directly and cumulatively – to turn forest into non-forested vegetation, or worse. The desired future condition described in the Purpose and Need, or in the Forest Plan is not deforestation.

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When replanting a forest after disturbances, does it make sense to try to reestablish what was there before? Or, should we find re-plant material that might be more appropriate to current and future conditions of a changing environment?

Restoration efforts on U.S. Forest Service managed lands call for the use of locally adapted and appropriate native seed sources. The science-based process for selecting these

seeds varies, but in the past, managers based decisions on the assumption that present site conditions are similar to those of the past.”

“This may no longer be the case.”

We wrote in our comments:

Lynx

Page 4 of the Wildlife Specialist Report states:

Recent research has shown that high-quality lynx habitat capable of maintaining consistent occupancy and breeding includes at approximately 45 percent mature multistory forest and 20 percent advanced regenerating (stand initiation) forest (Holbrook et al. 2017, Kosterman et al. 2018, Holbrook et al. 2019).

The Beartooth Plateau Lynx analysis unit is currently lacking this level of foraging habitat (Table 5).

Therefore, a continuation of these conditions would not be beneficial to lynx and the increasing risk of high severity fire could have negative impacts to existing lynx foraging habitat in the project area. High severity fire could also lead to large openings that lynx would avoid during movement. Over the long-term, stands impacted by fire would recover to provide stand initiation lynx foraging habitat. However, with a lack of tree seed sources, warmer and drier post-fire climate, and short

interval reburning, it is possible that forests would not recover following high severity fire (Kantor et al. 2022).

Page 4 of the Wildlife Specialist Report states:

Direct and Indirect Effects of the Proposed Action

The estimated post-project condition of lynx habitat by structural stage is displayed in Table 7. Proposed treatments would reduce potential winter foraging habitat in both the stand initiation and mature multistory structural stages. The reduction in potential lynx foraging habitat would move the lynx analysis unit further from amounts of mature multistory and advanced regenerating forest necessary to support successful lynx reproduction (Holbrook et al. 2017, Kosterman et al. 2018, Holbrook et al. 2019). The small increase in early stand initiation forest would provide additional stand initiation foraging habitat over the long-term, as saplings grow tall enough to protrude above the snow in winter. All treatments would also reduce coarse woody debris that provides structure for potential denning sites; however, denning habitat is not thought to be a limiting factor for lynx.

In plain English, the Forest Service says there isn't enough mature and old growth forests in the project area for lynx so the Forest Service is proposing to clearcut mature and old growth forests to make the project area even less hospitable for lynx. But they Forest Service also

says that trees will grow back so eventually it will be better for lynx.

But in the long run lynx could be extinct and there is no guarantee that the Forest Service won't go back and log the project area after the trees grow back.

The ESA states: (b) PURPOSES.—The purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.

Instead this project's goal is to destroy the ecosystems upon which lynx depend in violation of the ESA.

This project will clearly create massive barriers to lynx travel, given the long linear treatment areas planned. The analysis of project impacts to lynx in the wildlife report is just a conclusion that there will be no significant impacts on lynx habitat connectivity. This assumption requires that all planned treatment units will remain suitable travel habitat for lynx, when in fact the current best science clearly shows that any type of vegetation thinning triggers lynx avoidance, including for decades. The project will clearly have significant adverse impacts on lynx habitat connectivity, which means the ability of lynx

to travel through this habitat will be substantially degraded. In this regard, the agency's claim that treatments in IRAs will have no adverse impacts on lynx is clearly false. The actual level of connectivity that will be reduced by this project is never evaluated.

Has the Custer Gallatin National Forest removed or altered any lynx analysis units (LAUs) in the Gardiner Ranger District?

The Forest Service responded:

The analysis focused on the 13,033 acres of potential Canada lynx habitat in the Beartooth Plateau LAU and did consider the most recent applicable science.

Potential impacts of proposed activities to lynx habitat connectivity were disclosed in the wildlife report.

The Forest Service did not respond to our question:

Has the Custer Gallatin National Forest removed or altered any lynx analysis units (LAUs) in the Gardiner Ranger District?

The agency is violating the NEPA by failing to include public involvement in the remapping of lynx habitat completed in 2013.

The document “Updating lynx habitat mapping using best science, corporate standardized data and state-of-the-art GIS technology”, October 2013, for the Gallatin and Custer National Forests is provided in Attachment #2 of this Objection. Page 10 of this document indicates that lynx habitat remapping for the Beartooth Plateau LAU resulted in the reduction of mapped lynx habitat from 17,646 acres on Forest Service lands down to 8,754 acres on Forest Service lands, which was a reduction of 50%. There was no public involvement included in this in-house remapping, in violation of the NEPA. The agency is required to undergo NEPA for this remapping before it is implemented as management direction.

It is not actually clear what the end results of remapping lynx habitat on the Custer Gallatin National Forest is. For example, the Cooke City project states that the Beartooth Plateau LAU has 13,033 acres of mapped lynx habitat. This differs from either the 2005 17,646 acres of mapped lynx habitat, or the 2013 8,754 acres of mapped lynx habitat for this LAU. If the 13,033 acres of mapped lynx habitat is the actual current acreage defined for this LAU, this would be a reduction of 4,613 acres of mapped lynx habitat from 2005, or 26%. The Cooke City project does not address remapping activities since 2005. The description of the acres of lynx habitat removed as per the final remapping project needs to be provided to the public as a part of this objection process, so the public can understand and

evaluate whether this process was consistent with the current best science.

The Beartooth Plateau Lynx Analysis Unit (LAU) is 80,259 acres as per the project wildlife report, or 85,112 as per the USDA (2013). The project area is only 19,331 Forest Service acres. So the LAU is over 4 times the size of the project area. Evaluation of lynx habitat impacts as per the LAU is an analysis of cumulative impacts, not direct impacts. The agency is required to evaluate impacts to lynx within the project area. This is consistent with the average size of a lynx home range:

Please find attached, Holbrook et al. (2019): median home range size of 8,855 acres.

Please find attached, Holbrook et al. (2017a): median home range size of 13,500 acres.

The Forest Service falsely claimed that the Cooke City project will not adversely impact the threatened lynx or its critical habitat. The cumulative adverse impacts of the Cooke City Project on lynx, including multiple violations of the Forest Plan direction for lynx and linkage areas, will clearly trigger adverse impacts on lynx in violation of the ESA, NFMA, NEPA, and the APA.

- a. Degrading critical lynx habitat by reducing lodgepole pine does not promote conservation of the lynx, as is required by the ESA.

As per Holbrook et al. (2017a), lodgepole pine seedlings and saplings provide the most nutritious forage for snowshoe hares of all conifers. This is why their study noted a significant correlation between the presence of snowshoe hares and lodgepole pine (e.g., abstract, “the abundance of lodgepole pine (*Pinus contorta*) was associated with snowshoe hare use within a mixed conifer context,”). This study noted that a mixture of lodgepole pine, spruce and subalpine fir provided optimal habitat for snowshoe hares, as both high quality forage (lodgepole pine) and good hiding cover (spruce and fir) were mixed together. This is exactly the type of key snowshoe hare habitat that is being targeted with the Cooke City project. Thus, the agency’s deliberate efforts to eliminate all three of these key species for snowshoe hares (lodgepole pine, spruce and fir), within vast acres of the Cooke City project area is a clear violation of the conservation requirements for lynx as per the ESA.

REMEDY

Choose the No Action Alternative or write an EIS that fully complies with the law.

We wrote in our comments:

Old Growth

The Project violates the Forest Plan; the Project EA violates NEPA; and/or the Revised Forest Plan violates the NFMA planning regulations regarding old growth.

All previous paragraphs are incorporated by reference.

The 2012 Planning Rule mandates: "Ecosystem diversity. The plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the plan area. In doing so, the plan must include plan components to maintain or restore: . . . (ii) Rare . . . terrestrial. . . animal communities" 36 C.F.R. §219.9 (a)(2). Compliance with this provision "is intended to . . . support the persistence of most native species in the plan area." 36 C.F.R. §219.9.

The primary "rare terrestrial animal community" on the Forest is the old growth dependent wildlife species community.

The enforceable numeric old growth forest standards found in the prior forest plans – to protect old growth dependent wildlife species – were removed from the

Revised Forest Plan, and replaced with a desired condition and a guideline.

Revised Forest Plan Desired Condition FW-VEGF-DC-05 states: “Forest conditions support an abundance and distribution of old growth that is dynamic over time. All vegetation desired conditions help ensure that an appropriate array of conditions is present to provide old growth.

The location and condition of old growth is dynamic over time. Development and maintenance of old growth stands is influenced by succession, natural disturbance regimes, silvicultural treatments, and climate. Landscape-level resiliency is provided by promoting a mosaic of younger forests to replace old growth when it is killed by stand-replacing events. The desired condition of old growth is described in table 13.

Table 13. Forestwide desired and existing condition of old growth

The Desired conditions old growth condition Forestwide are 17% old growth

(15% - 20%)

The Revised Forest Plan states on page 38, Old growth is resilient to impacts that might result in the loss of old growth characteristics, such as insect infestations, wildfire, and drought. Old growth contains components that contribute to high quality habitat, including large or very large live trees with rot or broken tops, snags,

downed woody material, and a diversity of tree size classes and canopy layers. A variety of old growth types are present.

Cold (desired) 32%

Actual (26% - 37%)

Old growth in this broad potential vegetation type generally consists of whitebark pine, Engelmann spruce, and subalpine fir, with stand-level resiliency and open structures desired in whitebark pine types versus spruce/fir types which may be denser and more layered.

Cool Moist (desired) 22%

(Actual) (16% - 27%)

Old growth in this broad potential vegetation type may be subject to wider pulses of availability, due to the preponderance of lodgepole pine and high severity low frequency disturbance regimes. Old growth includes spruce/fir or Douglas-fir dominated stands, often with dense canopy layers, as well as even-aged lodgepole pine.

Warm Dry - Montane

(Desired) 4%

(Actual) (1% - 6%)

Old growth is dominated by Douglas-fir, often in large patches with an uneven-aged and irregular tree distribution. Stands are resilient to low severity

disturbance. Other species such as juniper and aspen are valuable habitat components.

Warm Dry - Pine Savanna

(Desired) 3%

(Actual) (1% - 6%)

Old growth is dominated by pure stands of large, fire-resistant ponderosa pine, in various patch sizes with an uneven-aged and irregular tree distribution. Stands are resilient to low severity disturbance.

1. Old growth forests are defined specifically as forests that meet the minimum criteria established for the Northern Region of the Forest Service (see glossary) unless more current scientific information becomes available.

2. Existing condition shown is the mean percent of old growth (see glossary) with the 90 percent confidence interval shown in parenthesis. Source is Northern Region Summary Database, Forest Inventory and Analysis data, updated in 2015.

Chapter 2. Forestwide Direction

Land Management Plan – Custer Gallatin National Forest

Objectives (FW-OBJ-VEGF)

01 Complete vegetation management treatments (such as timber harvest, planned ignitions, thinning, planting) on a minimum of 6,000 to 7,500 acres of the Custer Gallatin, measured as an annual average on a decadal basis, to maintain or move towards achieving desired conditions. At least 10 percent of acres treated (600 to 750 acres) have explicit primary or secondary purposes of benefitting wildlife, whitebark pine and other at-risk species habitat, pollinator habitat, non- commercial vegetation, and general terrestrial ecosystem conditions.

Guidelines (FW-GDL-VEGF)

01 To contribute to plant and animal diversity and landscape heterogeneity, as well as provide habitat for old-growth-associated plant and animal species, vegetation management activities in old growth should retain old growth characteristics to the extent practicable. Vegetation management (including timber harvest, fuels treatment, or prescribed fire) in old growth should be used only to achieve one or more of the following purposes:

- a. To maintain or restore old growth habitat characteristics and ecosystem processes.***
- b. To increase resilience to disturbances or stressors (such as drought, high severity fire, bark beetles) that may have negative impacts on old growth characteristics or abundance at stand or landscape scales.***

Exceptions to this guideline may be allowed in old growth lodgepole pine forests or where needed to manage infrastructure within or adjacent to old growth.

02 To maintain habitat connectivity and minimize disturbance of old-growth associated wildlife, road construction (permanent or temporary) or other developments should be avoided in old growth (see glossary) unless access is needed to implement vegetation management activities and purposes as outlined in FW-GDL-VEGF-01 and there are no feasible alternative road locations.

03 To maintain snags (standing dead trees) over the long term for wildlife habitat and ecosystem processes, all vegetation management projects should retain at least 40 snags per 10 acres. The largest snags available should always be prioritized for retention. Guideline applies as an average of treatment units across a project area and allows for variation in snag retention among treatment units with the intent of preserving the most desirable snags. Snags need not necessarily be present on every acre or in every treatment unit; they may be clumped as appropriate for the site, species, and existing snag distribution. If fewer than the minimum desired snags are present, live trees should be retained to meet the minimum desired snags within treatment units with a preference for the largest and most decadent trees available. Large, live replacement trees may also count toward compliance with FW-GDL-VEGF-05. Trees with evidence of rot or wildlife use are preferred. Live replacement trees do not need to

be retained where retention is not possible due to operational limitations associated with harvest or burning implementation. Snags should be retained greater than 300 feet away from roads in areas open for firewood collection. Exceptions to the snag retention guideline may be allowed in areas where the minimum number of snags or live replacement trees are not present prior to management activities or where needed to manage infrastructure.

04 To maintain snags (standing dead trees) over the long term for wildlife habitat and ecosystem processes, if snags retained to meet FW-GDL-VEGF-03 are felled (to manage infrastructure or for

The Revised Forest Plan defines old growth: “an ecosystem distinguished by old trees and related structural attributes. For the CGNF, old growth stands are specifically defined as those that meet the definitions in Green et al. 1992 (errata corrected 12/11). Those definitions include the discussion in that document titled “USE OF OLD GROWTH TYPE DESCRIPTIONS” (pages 11 and 12). If that document is revised or replaced by the Northern Region, the updated version will be used. Old growth identification and mapping is dynamic through time to reflect changing conditions on the landscape.”

Green et al states: “Minimum Criteria: [1] Minimum Age of Large Trees - This is the minimum average age for the largest size class for the old growth type[;] [2]Number TPA/DBH - Number of live trees per acre equal to or

greater than a given dbh level and age. This would be the minimum number of live trees per acre equal to or greater than a set dbh level and age[;] and [3] Minimum Basal Area - the minimum basal area in square feet for trees equal to or greater than 5" dbh."

The Green et al Minimum Criteria for each forest in the Eastside Montana forest types are set forth below:

DESCRIPTION		MINIMUM CRITERIA		
OLD GROWTH TYPE	HABITAT TYPE GROUP	MINIMUM AGE OF LARGE TREES	MINIMUM NUMBER TPA/DBH	MINIMUM BASAL AREA (FT ² /AC)
1 – DF	A	200	4 ≥ 17"	60
2 – DF	B,C,D,E,F,H	200	5 ≥ 19"	60
3 – DF	G	180	10 ≥ 17"	80
4 – PP	A,B,C,K	180	4 ≥ 17"	40
5 – PF	A,B	120	6 ≥ 09"	50
6 – LP	A,B,C,D,E, F,G,H,I	150	12 ≥ 10"	50
7 – SAF	C	160	12 ≥ 17"	80
8 – SAF	D,E	160	7 ≥ 17"	80
9 – SAF	F,G,H,I	160	10 ≥ 13"	60
10 – SAF	J	135	8 ≥ 13"	40
11 – WBP	D,E,F,G,H,I	150	11 ≥ 13"	60
12 – WBP	J	135	7 ≥ 13"	40

In this Project area, for example, old growth logging is permitted in Douglas-fir Type 1 (DF 1) and Douglas-fir Type 2 (DF 2) old growth types, which only require

retention of a minimum of 4 or 5 large trees over 200 years/old per acre.

Accordingly, there is no longer any enforceable numeric standard for old growth forest retention on the Forest, and logging is permitted in old growth forest down to the “minimum criteria” listed in Green et al., which in cases such as this Project require the retention of only 4 or 5 large trees per acre.

First, the Project violates the Forest Plan. The Project EA does not demonstrate that the Forest Service is currently complying with the desired condition of 17% old growth Forest-wide, 4% old growth for warm dry types, 22% old growth for cool moist types, and 32% old growth for cold types. The assessment for the Forest Plan was issued over 3 years ago, and since that time logging, windthrow, wildfires, and beetle kill have occurred that may have changed the existing condition. The Forest Plan requires this analysis at both the Forest level, as well as the Geographic Area level, but the Project EA does not disclose the existing old growth condition at either level. Moreover, the Forest Plan specifies that old growth must be widely distributed and provide for connectivity at both the Forest level and the Geographic Area level; the only way to determine whether there is wide distribution that contributes to connectivity is with a map. For all of these reasons, the Forest Service is violating the Revised Forest Plan, in violation of NFMA, NEPA, and the APA.

Second, alternatively or in addition, the Project EA violates NEPA. The Project EA fails to take a hard look at whether old growth complies with desired percentages discussed above, and is widely distributed and contributes to connectivity across the Forest and in every Geographic Area, including the Castle Mountains Geographic Area. There are no Forest-wide or Geographic Area-wide disclosures of percentages of existing old growth, or maps showing distribution and connectivity of old growth at these scales. Thus, the Project EA fails to take a hard look and fully and fairly inform the public and agency as to whether the Project is consistent with the text, purpose, and intent of Forest Plan Desired Condition FW-VEGF-DC-05, and fails to take a hard look at the ways that the Project could help to restore and achieve wide distribution and connectivity of old growth habitat as envisioned by the Forest Plan. Furthermore, under Kern v. BLM, the Project EA must include the cumulative effects analysis on old growth dependent wildlife species that is missing from the Revised Forest Plan EIS. Without this analysis at the Project EA level, the Project analysis unlawfully tiers to the Revised Forest Plan EIS. As discussed below, the Revised Forest Plan EIS fails to provide any meaningful cumulative effects analysis as to how the removal of enforceable minimum standards for old growth retention, and the allowance of commercial logging in old growth forest stands across the Forest, will cumulatively degrade habitat for old growth dependent wildlife species and prevent the Forest from maintaining

viable populations of this rare, native terrestrial wildlife community.

Third, alternatively or in addition, the Revised Forest Plan violates the 2012 NFMA Planning Rule and/or NEPA. The old growth provisions in the Revised Forest Plan, which fail to set enforceable numeric minimum percentages of old growth retention for the Forest, and at the same time allow significant commercial logging in old growth while still labeling it as “old growth” post-logging, lack ecological integrity, including lacking appropriate elements to ensure function and connectivity of old growth forest for the rare terrestrial wildlife community of old growth dependent wildlife species, and therefore the Revised Forest Plan violates the NFMA planning regulations, NFMA, and the APA.

Furthermore, there is no adequate cumulative effects analysis in the Revised Forest Plan EIS regarding the impact on old growth dependent wildlife species across the Forest from this new, piecemeal, project-by-project, death by a thousand cuts approach to old growth forest management. Without a Forest-wide cumulative effects analysis of how old growth logging will impact old-growth dependent wildlife species, the Forest Service cannot demonstrate that its Forest Plan complies with NEPA or the NFMA planning rule mandate that the Forest Plan maintains or restore the “rare terrestrial animal community” of old growth dependent wildlife species.

If the project will reduce hiding cover below the minimum recommended level of 40%, then the project will have

significant adverse impacts on elk, which would require completion of an Environmental Impact Statement (EIS).

The failure to complete any surveys for any wildlife species except for the presence/absence of the Flammulated Owl is apparently justified by the large size of the project. Treatment of the project area would require a massive survey effort to detect nest and roost sites of focal species. It would also require a massive effort to survey for neotropical migratory birds, which includes the Northern Goshawk and Great Gray Owl. The fact that large projects prevents any valid reliable surveys for wildlife means that these project will automatically have significant adverse impacts of a host of wildlife species, requiring an EIS. The attached Forest Service Handbook 1109.12, Chapter 10 states that Scoping is required for all Forest Service proposed actions, including those that would appear to be categorically excluded from further analysis and documentation in an EA or an EIS (§220.6).

A key requirement of the scoping process is to: “(1) Determine the scope (§1508.25) and the significant issues to be analyzed in depth in the environmental impact statement.”

The Forest Service has skipped this step and gone right to asking the public to comment in the EA.

We believe because of the size of the project and the cumulative effects of past current and future logging by

the Forest Service and private logging in the area the Forest Service must complete a full environmental impact statement (EIS) for this Project. The scope of the Project will likely have a significant individual and cumulative impact on the environment. Alliance has reviewed the statutory and regulatory requirements governing National Forest Management projects, as well as the relevant case law, and compiled a checklist of issues that must be included in the EIS for the Project in order for the Forest Service's analysis to comply with the law. Following the list of necessary elements, Alliance has also included a general narrative discussion on possible impacts of the Project, with accompanying citations to the relevant scientific literature. These references should be disclosed and discussed in the EIS for an EA if you refuse to write an EA for the Project.

Will this project leave enough snags to follow the Forest Plan requirements and the requirements of sensitive old growth species such as flammulated owls and goshawks? Please survey the project area for old growth forests before the EA or EIS is finalized so the public has a chance to comment on it. Waiting until the NEPA process is over is a violation of NEPA, NFMA, and the APA.

We are interested in old growth management in this landscape. Please provide the inventory results for old growth of all cover types as per Green et al. (1991), including lodgepole pine and whitebark pine old growth, along with a map of such. If any of these old growth

stands are going to be treated, please provide the supporting documentation that habitat values for over 20 species of birds associated with old growth forests will not be altered. How do old growth levels in the project area compare to historical levels, since the agency claims moving towards the historic range of variation is a purpose of this project. What is the historic levels of old growth, and how will this project move towards that level?

The Forest Service replied:

The impacts to old growth are fully analyzed and disclosed in the environmental assessment and associated specialist reports. The minimum criteria and associated characteristics for old growth types by geographic zone in Green et al. (Green et al. 2011) were adopted as the definition for old growth in the 2022 Custer Gallatin National Forest Land Management Plan. No old growth stands as defined above were identified within proposed action treatment units. Further, if old growth stands or stands with old growth characteristics are identified during the implementation phases, the characteristics will be maintained by following design features FV1 and FV2.

We noted in our comments with Native Ecosystems Council that there was no old growth information for the project area, even though old growth is a key, critical habitat for many species of western forest birds. We also

noted that the CGNF Revised Forest Plan (RFP) has an invalid conservation strategy for birds dependent upon snags. Another concern was the apparent contradiction of the CGNF RFP as per the guideline for raptor surveys. Only known nests are to be protected, but there are no actual requirements for surveys in order that such nests can actually be located. WE noted there was no analysis of project impacts on elk, including security and habitat effectiveness, even though the CGNF was instrumental in developing elk management recommendations as per USDA/MFWP (2013). We raised a concern about the lack of “beneficial practices” being required for migratory birds, as per the Migratory Bird Treaty Act (MBTA). As such, the allowed “incidental take” of migratory birds was never addressed, so this take will not be legal. We noted as well that the Cooke City Project NEPA analyses never did evaluate impacts on any species of western forest bird, including Montana SOC or USFWS BCC, and that the CGNF appears to have no actual conservation requirements for these species.

The CGNF is violating the NFMA by failing to ensure key habitats essential for landbirds associated with forest habitat will persist across all areas of the forest, including areas where timber production is emphasized; it is clear that severe adverse impacts will be triggered to western forest birds, impacts that require completion of an EIS.

The CGNF RFP has no protections for landbirds associated with old growth forests; a Forest Plan amendment is

required to address this failure before any additional vegetation and/or fuels projects are implemented.

The CGNF RFP does not require any level of actual old growth. Any old growth can be logged for timber production and fuels reduction, as long as the minimum number of trees identified in Green et al. (1991) remain. This number of trees can be provided in clearcuts with leave trees. So the desired condition for old growth in the RFP, to maintain or increase old growth, is not being met in violation of the RFP. All current old growth is available for timber production. The RFP FEIS does not define why timber production and fuels treatments in old growth stands are compatible for wildlife, including the following 23 bird species that likely occur on the CGNF in violation of the 2012 Planning Rule, NEPA, NFMA and the APA.

The CGNF Revised Forest Plan does not identify any focal species for this landbird assemblage for forested ecosystems, in violation of the 2012 Planning Rule and the NFMA (CFR 219.9). As is noted in the CGNF RFP, the 2012 Planning Rule includes 8 monitoring items, of which #3 states: “The status of focal species to assess the ecological conditions required under 36 CFR 219.9.” The response provided to NEC on focal species includes the following:

Focal species to be monitored are determined by the area being studied. “The presence, habitat affiliation and population trend (status of) avian species associated with forested vegetation at a forest wide scale “ (Forest Plan p.191). Since this term is utilized in the monitoring plan for the whole Custer-Gallatin National Forest, the closest comparison for the Cooke City Project would be the species identified in the Wildlife Report. In the case of land bird species and assemblages in the Cooke City Project area, the species and their preferred habitat are identified in Table 37 of the Cooke City Fuels and Forest Health: Wildlife Effects Analysis on page 33-34, along with an analysis of the project’s possible effects on these species. This report can be found on the Cooke City Fuels and Forest Health Project webpage under the Project Documents tab in the Objection_Specialist Report folder.

In effect, agency personnel are stating that the CGNF RFP does not identify focal species for monitoring landbird assemblages in forested ecosystems because these will be identified for each project area landscape. This is never specifically noted in the RFP to explain why focal species for a landbird assemblage were never identified, as is required by the 2012 Planning Rule. As there is currently no biennial monitoring report completed for the 2022 RFP, it is not possible to see how focal species were addressed in

the required monitoring. The failure to provide this biennial monitoring report is also a violation of the NFMA.

The Cooke City Project Wildlife Report identifies 14 bird species as Montana Species of Concern (SOC) or USFWS Birds of Conservation Concern (BCC). There was no information provided to indicate these are considered “focal species,” or that they are being monitored as per the RFP. However, these species are not identified as focal species in the RFP for landbirds associated with forested habitats. In effect, the CGNF is clearly violating the requirements to identify and monitor wildlife via focal species in order to maintain their diversity over the landscape. At this time, out of 67 species of western forest birds, 64% of them are in decline (Rosenberg et al. 2019). Management of western forest birds is essential to prevent further declines, and to actually reverse these declines by increasing their habitats.

Until the CGNF amends the RFP to identify focal species for birds associated with forested ecosystems, and establishes how these focal species will be monitored in order to know how forest management activities are affecting their habitats and populations, the agency cannot legally proceed with any types of vegetation projects that will impact forest birds.

Old growth-dependent wildlife species are a rare terrestrial wildlife community in Montana composed of specific interior-forest mammals, raptors, woodpeckers, and songbirds. What these species have in common is a need for a certain level of closed forest canopy for cover and large trees for nesting or denning. This type of forest has a legacy of dead standing trees, dead fallen trees, large live standing trees, multiple canopy layers, and a closed forest canopy. This type of forest – whether it is called “old-growth” or “mature” or “overmature” or “multi-storied” – can take hundreds of years to grow. This type of forest is also highly desired by commercial logging interests due to the economic value of large trees.

Northern Rockies fisher and pine marten are two interior forest dwelling mammals that do best when patches of mature forests are large and non-linear. They generally avoid large openings such as clearcuts.

Several studies show that goshawks, an interior forest dwelling raptor, avoid clearcuts or areas with sparse tree cover created through timber harvest, while goshawk competitors (red-tailed hawks, great horned owls) may respond favorably to treatments that create early successional habitat.

Clearcutting and intermediate logging can also reduce potential red squirrel habitat, a primary prey species for goshawks, by removing large trees and down logs on the site.

Pileated woodpeckers are considered a large-patch-size species. Their home ranges are extensive and require a generous percentage of unlogged or partially logged forest with a reasonable distribution of large trees. Several studies indicate that pileated woodpeckers do not occupy recently logged landscapes.

Several other bird species respond negatively to harvest treatment that reduces stand density and opens up forested stands. Brown creepers are strongly associated with late successional stages of coniferous forests and in Montana they are more common in spruce-fir and mixed-coniferous forests. Studies in the Rocky Mountains indicate that creepers tend to be less abundant in logged (clearcut and partial logged) versus unlogged forests.

Townsend's warblers may also be affected by openings created through regeneration harvest. They rely on coniferous forests and tend to be less abundant in open forests or in forest patches that have been harvested.

Hammond's flycatcher and Canada jays are also sensitive to timber harvest.

Great gray owls may also be susceptible to logging.

Red crossbills are adapted for foraging on seeds in conifer cones. They benefit most from mature and old growth forests that generally produce seeds consistently over longer periods than logged forests.

Clearcutting openings can create habitat for cowbirds that utilize forest edges associated with the openings in turn reducing local populations of susceptible forest birds.

A landscape with a complex matrix of mature conifer forest, new clearcuts, sapling thickets, aspen clones, burns, and dry parks may limit habitat opportunity for certain mammals and birds such as red-backed voles, red squirrels, brown creepers, goshawks, meadow voles, and meadowlarks.

Clearcuts, in particular, can eliminate whole blocks of interior forest habitat replacing them with open environments that can be problematic for some forest-dependent forest species for several decades.

The new unforested clearings and the early-seral forest habitats that follow favor a different association of wildlife species—those adapted to "open" environments, edges, ecotones, or mosaics of early/late seral forest. These species may then compete with interior forest dwellers in along the edges and ecotones.

The Project violates the Forest Plan; the Project EA violates NEPA; and/or the Revised Forest Plan violates the NFMA planning regulations regarding old growth.

The 2012 Planning Rule mandates: "Ecosystem diversity. The plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the

plan area. In doing so, the plan must include plan components to maintain or restore: . . . (ii) Rare . . . terrestrial. . . animal communities" 36 C.F.R. §219.9 (a)(2). Compliance with this provision "is intended to . . . support the persistence of most native species in the plan area." 36 C.F.R. §219.9.

The primary “rare terrestrial animal community” on the Forest is the old growth dependent wildlife species community.

The enforceable numeric old growth forest standards found in the prior forest plans – to protect old growth dependent wildlife species – were removed from the Revised Forest Plan, and replaced with a desired condition and a guideline.

There is no longer any enforceable numeric standard for old growth forest retention on the Forest, and logging is permitted in old growth forest down to the “minimum criteria” listed in Green et al., which in cases such as this Project require the retention of only 4 or 5 large trees per acre.

The Project EA fails to take a hard look at whether old growth complies with desired percentages discussed above, and is widely distributed and contributes to connectivity across the Forest and in every Geographic Area.

the Revised Forest Plan violates the 2012 NFMA Planning Rule and/or NEPA.

The old growth provisions in the Revised Forest Plan, which fail to set enforceable numeric minimum percentages of old growth retention for the Forest, and at the same time allow significant commercial logging in old growth while still labeling it as “old growth” post-logging, lack ecological integrity, including lacking appropriate elements to ensure function and connectivity of old growth forest for the rare terrestrial wildlife community of old growth dependent wildlife species, and therefore the Revised Forest Plan violates the NFMA planning regulations, NFMA, and the APA. Furthermore, there is no adequate cumulative effects analysis in the Revised Forest Plan EIS regarding the impact on old growth dependent wildlife species across the Forest from this new, piecemeal, project-by-project, death by a thousand cuts approach to old growth forest management.

Without a Forest-wide cumulative effects analysis of how old growth logging will impact old-growth dependent wildlife species, the Forest Service cannot demonstrate that its Forest Plan complies with NEPA or the NFMA planning rule mandate that the Forest Plan maintains or restore the “rare terrestrial animal community” of old growth dependent wildlife species.

Remedy: Choose the No Action alternative or pull the draft decision and write an EIS that follow all laws and requirements.

Roadless Areas

We wrote in our comments:

Roadless Areas

Page 4 of the Roadless Specialist Resource Effect Analysis states:

Environmental Consequences of the Proposed Action
The proposed action alternative is designed to support the desired conditions in the Custer Gallatin National Forest Land Management Plan and consist of the following activities: mechanical fuels treatments, commercial timber harvest, hand treatments, and Whitebark pine enhancements. For more information see the Cooke City Fuels and Forest Health Final Environmental Assessment.

The proposed action alternative proposes treatment on approximately 3,218 acres total. Proposed treatment includes a mix of commercial harvest, mechanical and non-mechanical fuels treatment, and mechanical and non-mechanical Whitebark pine enhancement. Of these, approximately 1,224 acres are

within the Beartooth, North Absaroka, Reef, and Republic Mountain Inventoried Roadless Areas; 215 acres mechanical fuels, 478 acres non-mechanical fuels, 73 acres mechanical Whitebark pine enhancement, 429 acres non-mechanical Whitebark pine enhancement, and 30 acres commercial harvest.

See Table 2 and Figure 1 below.

Table 2. Treatment Acres in Inventoried Roadless Areas in Project Area.

*Bearthooth Roadless area: (Total Acres Acres) 6,427
(Treated) 631 acres
(Percentage Acres Treated) 9.82%*

North Absaroka (Total) 180, (Treated) 138 (Percent) .03

Reef (Total) 19,316 (Treated) 480 (Percent) 2.48

*Republic Mountain (Total) 837 (Treated) 56 (Percent)
6.69*

*Total Roadless Areas 206, Treated, 1,224 (Percent)
0.59*

*Page 10 of the Roadless Specialist Resource Effect
Analysis states:*

“Proposed mechanical operations would be commercial and non-commercial and may be in the form of larger equipment. There will also be hand work accomplished

via chainsaws, as well as landing, machine and hand-pile burning. There may be direct and indirect effects related to sights, sounds, lights (vehicle or equipment lights), or smells (smoke). Such as when operations are on-going, there will be sawing, log skidding and forwarding operations, log truck traffic and noise, equipment noise, dust, and chainsaw sounds. After operations cease and slash clean-up occurs, there will be crew activity, burning, and smoke in the units and vicinity. Smoke may drift through the areas and sounds may be heard. Activity in the Inventoried Roadless Areas would likely be on different temporal scales. Operations in the North Absaroka and Republic Mountain Inventoried Roadless Areas would likely be less than 30 days each and occur in one summer. This is due to there being less than 60 acres proposed for treatment in each.

Operations in the Beartooth and Reef Inventoried Roadless Areas may extend across multiple operating seasons depending on operability and proximity of each unit. During operations, visitors to these areas most likely would be temporarily displaced because of operations.”

Page 11 of the Roadless Specialist Resource Effect Analysis states:

“Issue 2: Are treatments consistent with the 2001 Roadless Area Conservation Rule?

The proposed action focuses treatments on generally small diameter timber with residual stand diameter generally increasing post treatment. Current diameter size class distribution of vegetation in the project area shows that roughly two-thirds of the forested vegetation areas are comprised of small diameter or smaller material (Table 3, Vegetation report). These forested areas are primarily lodgepole pine and Whitebark Pine, which compose approximately 40% of the project area (Table 2, Vegetation report). The rest of the project area is approximately 15% other forested vegetation types and 45% non-forested areas, shrub/herbs, and sparsely vegetated areas. The combination of these two factors, the primary forested vegetation types being Whitebark Pine and lodgepole pine and these forested vegetation types comprised of a majority of small diameter material, means that these treatments will generally target small diameter material.

No road construction is proposed in the Inventoried Roadless Areas. The treatments proposed in the Inventoried Roadless Areas would reduce the likelihood of high-intensity fire entering the wildland urban interface, impacting evacuation routes, and impacting utility infrastructure. It is likely that with treatments, fire behavior would mimic understory, or mixed severity burns in the treated areas rather than the stand replacement burns that also occur in lodgepole pine and mixed conifer forest. While standCooke City Fuels and Forest Health, Roadless Effects Analysis replacement is typical in these

forest types, it is also common to have fires that reduce surface and understory fuels through surface and mixed severity fire.

Several roadless area characteristics would be maintained or improved. Characteristics to be maintained or improved are high quality soil, water and air, habitat for threatened and endangered species, a variety of plant and animal communities, and traditional cultural properties would be maintained. Further information on these topics may be found in applicable specialist reports found in the project record. For these reasons, the treatments adhere to exception categories i and ii that allow tree cutting in the Inventoried Roadless Area, and the project is consistent with the Roadless Area Conservation Rule (36 CFR 294.13(b)(1)(i, ii)).”

The agency also failed to define that there are an unnatural characteristic in roadless areas that need to be treated. There was never any science or agency monitoring information cited as to why conifers present is uncharacteristic, or bad for wildlife, so that removing conifers would restore historical conditions. Also, as noted previously, degrading wildlife habitat is inconsistent with purported claims of restoring historical conditions. This brings into question the need for the proposed treatments, since wildlife habitat will be degraded as a result. Given the current plight for many landbirds in the U.S., it is illogical that

the Forest Service is claiming that destroying and/or degrading their habitat is a restoration project. This is a violation of the NEPA, the APA, the National Forest Management Act, as well as the Roadless Area Conservation Rule.

Given that the proposed treatments would address conifer removal within roadless lands, the wildlife and ecosystem benefits need to be defined to the public in order for the agency to represent these actions as habitat improvement and ecosystem restoration.

The agency did not provide any definitions of what would constitute “catastrophic fire” in the IRAs, if the aspen treatment projects do not move forward. The measures of “unnatural fires” need to be defined to the public, including where such fires have been recorded elsewhere on the CTNF.

In conclusion, the agency never identified why trees in inventoried roadless areas should be logged and burned so that each stand contains only a single age class, or why conifers

should be removed from aspen to benefit wildlife. Along with this lack of information, the agency noted that these treatments in roadless area would involve massive disturbances to the landscape, which means these areas would be heavily trammled. Examples of activities that would occur would be skid trails from any existing roads, including nonsystem roads where motorized use is illegal include: appearance of tree stumps for many years

after cutting aspen and conifers; burned trees due to prescribed burns; burn piles from burned slash and trees; firebreak and control lines needed to surround the burned areas; and tracked vehicles needed to achieve mechanical treatments, even though motorized use is prohibited in roadless areas; the noise from these massive treatments would also destroy the natural solitude of these roadless lands for the public. The agency claims that because these areas of roadless area treatments constitute such a small percentage of the landscape, they would not cause an “untrammeled appearance” to the public. Claiming that the appearance of management activities within only a small percentage of roadless lands does not violate the roadless rule is not based on any criteria. There is no criteria in this rule that we are aware of that permits a certain percentage of the landscape to appear heavily managed by the agency.

It is unclear where access to these roadless lands will be available. There is no information in the draft EA as to what roads, including user-created and nonsystem roads, will be required to access roadless treatment areas. Will motorized access be increased on currently-closed roads in order to treat roadless lands? If so, how is this consistent with the Roadless Area Rule? The maps of the proposed treatment areas are too small for the agency to identify travel routes and their current status. So the public is not being provided with the travel management information.

The Forest Service's representations and/or omissions in the EA, and its authorizations regarding tree cutting in an Inventoried Roadless Area, violate NEPA, the APA, and the Roadless Rule.

In the late 1990s, the Forest Service reached several findings regarding roads on National Forest lands: (1) use

of the National Forests had "shifted substantially toward recreation," (2) there were insufficient funds to maintain existing roads, and (3) there was an "accumulation of new scientific information" suggesting that "ecological impacts from existing roads are more extensive than previously thought." Alaska v. USDA, 273 F.Supp.3d 102, 108 (D.D.C. 2017)(quoting 63 Fed. Reg. 4350, 4350 (Jan. 28, 1998)). Subsequently, on January 12, 2001, the Forest Service published the final Roadless Rule. 66 Fed. Reg. 3244 (Jan. 12, 2001). The Roadless Rule prohibits road construction and tree cutting in designated "Inventoried Roadless Areas" subject to limited exceptions. See Alaska, 273 F.Supp.3d at 108.

For over 15 years, the Roadless Rule was the subject of litigation. See, e.g., Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1126 (9th Cir. 2002); California ex rel. Lockyer v. USDA, 575 F.3d 999, 1007 (9th Cir. 2009); Wyoming v. USDA, 661 F.3d 1209, 1272 (10th Cir. 2011); Organized Vill. of Kake v. USDA, 795 F.3d 956, 962 (9th Cir. 2015) (en banc); Alaska, 273 F.Supp.3d at

108–12. The Roadless Rule withstood these legal challenges. In relevant part, regarding the prohibition on

tree cutting, the Roadless Rule mandates:

Prohibition on timber cutting, sale, or removal in inventoried roadless areas.

(a) Timber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System, except as provided in paragraph (b) of this section.

(b) Notwithstanding the prohibition in paragraph (a) of this section, timber may be cut, sold, or removed in inventoried roadless areas if the Responsible Official determines that one of the following circumstances exists. The cutting, sale, or removal of timber in these areas is expected to be infrequent.

(1) The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11.

(i) To improve threatened, endangered, proposed, or sensitive species habitat; or

(ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;
(2) The cutting, sale, or removal of timber is incidental to

the implementation of a management activity not otherwise prohibited by this subpart;

... .

36 C.F.R. §294.13 (2005)(emphases added).

The Roadless Rule further explains the meaning of the phrase “incidental to” in subsection (b)(2) above as follows:

Paragraph (b)(2) allows timber cutting, sale, or removal in inventoried roadless areas when incidental to implementation of a management activity not otherwise prohibited by this rule. Examples of these activities include, but are not limited to trail construction or maintenance; removal of hazard trees adjacent to classified road for public health and safety reasons; fire line construction for wildland fire suppression or control of prescribed fire; survey and maintenance of property boundaries; other authorized activities such as ski runs and utility corridors; or for road construction and reconstruction where allowed by this rule.

66 Fed. Reg. 3258.

In this project, the Project area is located throughout the Ashley National Forest including in Inventoried Roadless Area. B2b:0004747. The Project allows tree-cutting in this

Inventoried Roadless Areas across the forest. It is unclear whether the Forest Service will be reconstructing old roads, using illegal user-created roads, or

using roads already closed by the Travel Plan in the Inventoried Roadless Area in order to conduct these activities; the Project EA only states that “No roads would be constructed in roadless areas.”

One exception to the ban on tree-cutting in a Roadless Area

is the allowance for tree cutting when it “is needed . . . [t]o

maintain or restore the characteristics of ecosystem composition and structure . . . within the range of variability that would be expected to occur under natural disturbance regimes. . . .” 36 C.F.R. §294.13 (b)(1)(ii).

Thus, in order to determine whether the “outside historic range of variability” exception applies, it is necessary to compare the existing condition to the historic range.

There is no mention of this in the EA or the Roadless Evaluation.

Tree-cutting is not “incidental to” another management activity; it is the management activity. The Forest Service fails to acknowledge that the Roadless Rule provides a narrow definition of the phrase “incidental to” in the (b) (2) exemption:

Paragraph (b)(2) allows timber cutting, sale, or removal in inventoried roadless areas when incidental to implementation of a management activity not otherwise prohibited by this rule. Examples of these activities include, but are not limited to trail construction or maintenance; removal of hazard trees adjacent to classified road for public health and safety reasons; fireline construction for wildland fire suppression or control of prescribed fire; survey and maintenance of property boundaries; other authorized activities such as

ski runs and utility corridors; or for road construction and reconstruction where allowed by this rule.

66 Fed. Reg. 3258.

Every one of these examples in the roadless rule that allows exceptions shows that the management activity itself is not any form of vegetation management, i.e. tree-cutting – instead the management activities are things like trail management, road management, firefighting, land surveys, ski runs, utility corridors, or lawful road construction. In contrast, here the management activity itself is vegetation management, i.e. tree-cutting.

The Forest Service's interpretation of exemption (b)(2) is contrary to the explanation of "incidental to" in the Roadless Rule, and if adopted, would swallow the rule. The Forest Service could simply avoid the tree-cutting ban by labeling every tree-cutting activity in a Roadless Area as something other than tree-cutting – such as "restoration" – and thereby circumvent the ban with euphemisms. This is clearly not the intent of the Roadless Rule. 66 Fed. Reg. 3258. Accordingly, the (b)(2) exemption does not apply here.

Finally, the record in this case is unclear how the Forest Service will access the Project units in the Roadless Area. Although the Forest Service states that it will not build new roads in the Roadless Area, B2c:0005510, the transportation map does not show that Project units could be accessed by existing roads in the Roadless Area, and the Forest Service has avoided answering the question of

*how it will access those units, B2c:0005513. This Court recently addressed a similar issue. **Hunters v. Marten**, 470 F.Supp.3d 1151, 1167-1169 (D. Mont. 2020). This Court held: “It is simply not true that the Forest Service had no duty to communicate its transportation plan to the public. NEPA imposes upon the agency the duty to take a ‘hard look’ when it plans its actions and ‘to provide for broad dissemination of relevant environmental information.’”*

The Court further held:

[Plaintiffs] contend that the final EIS is inadequate because it is misleading. []. The Court agrees with the latter. Having already discussed at length why the Forest Service’s treatment of the roadwork in the final EIS is inadequate and indicates bad faith, there is little more to say on the second issue. On remand, the Forest Service will be required to thoroughly develop its plan to bring heavy machinery into the roadless area.

The same type of analysis is necessary in this case as well. For all of these reasons, the Project violates the Roadless Rule and/or the Project EA fails to take hard look and provide accurate information and analysis to the public regarding Roadless Rule compliance, in violation of the APA and NEPA.

Remedy: Withdraw the Draft Decision Notice and write an EIS that fully complies with the law. The Forest Service recognizes the value of forestland unencumbered by roads, timber harvest, and other development. Sometimes these areas are known as “inventoried roadless areas” if they have been inventoried through the agency’s various Roadless Area Review

Evaluation processes, or “unroaded areas” if they have not been inventoried but are still of significant size and ecological significance such that they are eligible for congressional designation as a Wilderness Area.

Roadless areas provide clean drinking water and function as biological strongholds for populations of threatened and endangered species. Special Areas; Roadless Area Conservation; Final Rule, 66 Fed. Reg. 3,244, 3,245 (Jan. 12, 2001) (codified at 36 C.F.R. Part 294). They provide large, relatively undisturbed landscapes that are important to biological diversity and the long-term survival of many at-risk species. Id. Roadless areas provide opportunities for dispersed outdoor recreation, opportunities that diminish as open space and natural settings are developed elsewhere.

Id. They also serve as bulwarks against the spread of non-native invasive plant species and provide reference areas for study and research. Id.

Other values associated with roadless areas include: high quality or undisturbed soil, water, and air; sources of public drinking water; diversity of plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing cultural properties and sacred sites; and other locally identified unique characteristics.

The Forest Service responded:

Compliance with the Roadless Rule is discussed in the Roadless Effects Analysis report and in the Inventoried Roadless Area section of the Environmental Assessment available in the project record.

The Project violates the Roadless Rule and/or the Project EA fails to take hard look and provide accurate information and analysis to the public regarding Roadless Rule compliance, in violation of the Roadless Rule, the APA and NEPA.

Remedy:

Withdraw the Draft Decision Notice and write an EIS that fully complies with the law. The Forest Service recognizes the value of forestland unencumbered by roads, timber harvest, and other development. Sometimes these areas are known as “inventoried roadless areas” if they have been inventoried through the agency’s various Roadless Area Review Evaluation processes, or “unroaded areas” if they have not been inventoried but are still of significant size and ecological significance such that they are eligible for congressional designation as a Wilderness Area.

The Roadless Area Rule (2000), since vegetation treatments are not allowed unless they replicate natural processes and maintain natural scenery. We identified the multiple adverse

impacts treatments in IRAs will have on western forest birds, in violation of the Roadless Rule and the Migratory Bird Treaty Act.

Three threatened species, the grizzly bear, the lynx, and whitebark pine, will experience adverse effects of the proposed vegetation treatments in IRAs. In addition, the threatened wolverine will also experience adverse effects of these IRA treatments. This species is known to be heat sensitive (Copeland et al. 2010; Parks 2009). As discussed previously, forest thinning will result in local temperature increases over existing conditions. There is also the likelihood that the spring snowpack will be eliminated sooner in these treatment areas, even though the Project Wildlife Report notes that snowpack is an important habitat variable for wolverine.

WUI

We wrote in our comments:

We asked in our preliminary/scoping comments to please demonstrate the the Wildland Urban Interface (WUI) follows the statutory definition of the WUI found in the Healthy Forest Treatment Act. The EA does not do this.

Please demonstrate the the Wildland Urban Interface (WUI) follows the statutory definition of the WUI found in the Healthy Forest Treatment Act.

Please provide a map showing the WUI and the locations of all homes in comparison to the project area. Please demonstrate that your map of the Wildland Urban Interface (WUI) complies with the definition of the WUI in the Healthy Forest Restoration Act.

The Forest Service responded:

The wildland urban interface (WUI) was defined for this project based on the Healthy Forest Restoration Act (HFRA) definition of WUI. As described in the environmental assessment all treatment areas lie within the Park County wildland urban interface, which was identified in the Park County Community Wildfire Protection Plan (CWPP) as a priority area for treatment (page 41). All timber harvest treatment units within Canada lynx foraging habitat are also within the wildland urban interface surrounding Cooke City as defined by the Healthy Forest Restoration Act Section 101(16)(B). Cooke City was identified as a community-at-risk in the Federal Register (Vol. 66, No. 3) in January 2001. This is shown on figure 3 within the environmental assessment.

In spite of what the Forest Service responded, the Cooke City project is in violation of the Healthy Forest Restoration Act, NEPA NFMA, and the APA.

REMEDY:

Choose the No Action Alternative or withdraw the Draft Decision Notice and write an EIS that fully complies with the law.

Whitebark Pine

We wrote in our scoping comments:

Please see the attached paper by Six et al 2021 Whitebark Genetics 2021. Six et al found:

“Anthropogenic change is creating or enhancing a number of stressors on forests. To aid forests in adapting to these stressors, we need to move beyond traditional spacing and age-class

Individual whitebark pine trees will be maintained and improved by cutting all other species within 5 to 30 feet of outside crown edge of planted or natural whitebark pine trees.

Prescriptions and take into account the genetic variability within and among populations and the impact our actions may have on adaptive potential and forest trajectories. Because so little is known about the genetic diversity in most forest trees, and because it is key to effective conservation, studies of genetic diversity and structuring

in forest trees should be a top priority in forest adaptation and conservation efforts.”

Six also concluded:

“Our results also indicate that thinning prescriptions aimed at increasing tree growth in whitebark pine should be applied with considerable caution. Greater tree ring width/faster growth has been widely used as a proxy for tree vigor and as an indicator of greater resistance to bark beetles (Bhuyan et al., 2017). This view has led to thinning projects in whitebark pine aimed at increasing growth and vigor (Retzlaff et al., 2018) and resistance to D. ponderosae. However, while the relationship between growth and resistance to beetles has been shown to be positive in some pines and variable in others (Miller et al., 2012; Knapp et al., 2013; Keen et al., 2020), the opposite appears to be true for some populations of P. contorta (Cooper et al., 2018) and for P. albicaulis. In our study, as well as in that of Kichas et al. (2020), faster overall growth was the strongest predictor of mortality due to D. ponderosae indicating that such treatments will not have their intended effect in P. albicaulis and may even be detrimental. Furthermore, naturally low resin production, even by survivor and open-grown P. albicaulis, indicates thinning will have little-to-no effect on enhancing constitutive defenses against the insect.”

Therefore the proposal of Individual whitebark pine trees will be maintained and improved by cutting all other species within 5 to 30 feet of outside crown edge of planted or natural white-bark pine trees is

counterproductive and does not follow the best available science.

Much of the proposed treatments are termed “whitebark pine restoration.” But, the agency has not demonstrated that even past logging and burning in whitebark pine, such as in Fisher Creek, restored whitebark pine.

Please provide the results of this logging and burning to the public. Current research indicates that various treatments to thin whitebark pine result in little to no regeneration many years later. As such, these logging and burning white bark pine are destroying vast amounts of whitebark pine recruitment (seedlings and saplings) which is highly detrimental to stand persistence. It is a violation of the NEPA and the ESA to suggest the removal of recruitment is restoring these whitebark pine stands.

The EA seems to have ignored our scoping comments. The EA is also in violation of NFMA and the APA. We are repeating part of our scoping comments again in hopes that you will respond.

The Forest Service Responded:

The proposed action seeks to exclude or reduce the probability of stand replacing fires within the wildland urban interface to provide for defensible space, increase the safety of the public and firefighters and to reduce the probability of adverse impacts to communities when wildfires occur. (See Need for the Proposal, pg. 10 of the

Environmental Assessment) Project activities may support the return of fire's natural role to the landscape by providing defensible space to highly valued resources and assets. Please see the Fire and Fuels Effects Analysis for the analysis and disclosure of the project's effects on fire behavior and fuels characteristics.

The Forest Service acknowledges a lack of the decadal monitoring needed to definitively answer site and species specific effects to whitebark pine. However, increasing the vigour of trees by reducing competition is a standard silvicultural practice with extensive research to support it. Negative effects discussed in the EA are there to disclose any potential impacts, but these impacts are not assured to happen. There are numerous design features, EA Design Feature Appendix section At-Risk Plants, for whitebark pine in place to reduce the probability and impacts of such effects. While, reductions in tree density are hoped to improve individual whitebark pine tree vigor, reductions in fuels across the landscape should also reduce the threat of tree loss from high intensity wildfire.

The Forest Service ignored the best available science regarding white bark pine, Six et al. 2021 which found:

Our results also indicate that thinning prescriptions aimed at increasing tree growth in whitebark pine should be applied with considerable caution. Greater tree ring width/faster growth has been widely used as a proxy for

tree vigor and as an indicator of greater resistance to bark beetles (Bhuyan et al., 2017). This view has led to thinning projects in whitebark pine aimed at increasing growth and vigor (Retzlaff et al., 2018) and resistance to D. ponderosae. However, while the relationship between growth and resistance to beetles has been shown to be positive in some pines and variable in others (Miller et al., 2012; Knapp et al., 2013; Keen et al., 2020), the opposite appears to be true for some populations of P. contorta (Cooper et al., 2018) and for P. albicaulis. In our study, as well as in that of Kichas et al. (2020), faster overall growth was the strongest predictor of mortality due to D. ponderosae indicating that such treatments will not have their intended effect in P. albicaulis and may even be detrimental. Furthermore, naturally low resin production, even by survivor and open-grown P. albicaulis, indicates thinning will have little-to-no effect on enhancing constitutive defenses against the insect.

Therefore the proposal of Individual whitebark pine trees will be maintained and improved by cutting all other species within 5 to 30 feet of outside crown edge of planted or natural white-bark pine trees is counterproductive and does not follow the best available science.

Whitebark pine seedlings, saplings and mature trees, present in subalpine forests proposed for logging and burning, would experience mortality from project activity.

Whitebark pine is fire intolerant (thin bark). Fire favors whitebark pine regeneration (through canopy opening and reducing competing vegetation) only in the presence of adequate seed source and dispersal mechanisms (Clarks Nutcracker or humans planting whitebark pine seedlings).

White pine blister rust, an introduced disease, has caused rapid mortality of whitebark pine over the last 30 to 60 years. Keane and Arno (1993) reported that 42 percent of whitebark pine in western Montana had died in the previous 20 years with 89 percent of remaining trees being infected with blister rust. The ability of whitebark pine to reproduce naturally is strongly affected by blister rust infection; the rust kills branches in the upper cone bearing crown, effectively ending seed production.

Whitebark pine seedlings and saplings are very likely present in the subalpine forests proposed for burning and logging. In the absence of fire, this naturally occurring whitebark pine regeneration would continue to function

as an important part of the subalpine ecosystem. Since 2005, rust resistant seed sources have been identified in the Northern Rockies (Mahalovich et al 2006). Due to the severity of blister rust infection within the region, natural whitebark pine regeneration in the project area is prospective rust resistant stock.

Although prescribed burning can be useful to reduce areas of high-density subalpine fir and spruce and can create favorable ecological conditions for whitebark pine regeneration and growth, in the absence of sufficient seed source for natural regeneration maintaining the viability and function of whitebark pine would not be achieved through burning. Planting of rust-resistant seedlings would likely not be sufficient to replace whitebark pine lost to fire activities.

We are aware of the failure of the CGNF to continue with a monitoring program on treatment effects on whitebark pine, a study that was established in the Cooke City Project Area.

The Forest Service acknowledged that they did not do any monitoring or surveys to determine the success of past projects to help white bark pine and the presence and

abundance of whitebark pine re-generation? If whitebark pine seedlings and saplings are present, what measures will be taken to protect them? Please include an alternative that excludes burning in the presence of whitebark pine regeneration (consider ‘Daylighting’ seedlings and saplings as an alternative restoration method). Will restoration efforts include planting whitebark pine? Will planted seedling be of rust- resistant stock? Is rust resistant stock available? Would enough seedlings be planted to replace whitebark pine lost to fire activities? Have white pine blister rust surveys been accomplished? What is the severity of white pine blister rust in proposed action areas?

The Forest Service’s discussions of potential impacts to whitebark pine from the proposed treatments were in many respects consistent with the current best science. For example, thinning of mature whitebark pine trees could increase their vulnerability to future attacks by mountain pine beetles, as has been noted by Six et al. (2021). This effect has also been noted for lodgepole pines (Cooper et al. 2018). The agency also noted that thinning may result in “blowdown” of remaining mature whitebark pine trees, and that all mechanical and non-mechanical treatments will likely destroy an unknown number of whitebark pine seedlings and saplings. It was also noted that the effect of thinning of whitebark pine stands as per vulnerability to

White Pine Blister Rust was unknown. It was noted that the shrub Ribes, a host for White Pine Blister Rust, will potentially increase in thinned stands due to more sunlight. The agency did not reconcile this impact information with what is the expected outcomes of these impacts: is this going to improve whitebark pine stands? IN general, the agency seems to note that there will be many adverse impacts to whitebark pine even though this is claimed to be a whitebark enhancement project. This failure to reconcile these contradictions creates a NEPA/APA violation.

One factor that the agency ignored in their analysis of project impacts on whitebark pine was to estimate the number of seedlings and saplings that will be killed by this project, and how this will impact stand persistence. Clearly, regeneration is essential for stand persistence, so this failure to measure specifically how the project losses of regeneration will “improve” persistence of these stands is a clear NEPA violation. Just saying some seedlings and saplings will be killed on 3,218 acres is not a NEPA analysis as to how this mortality will impact persistence of whitebark pine stands that will be treated. An example of the required NEPA analysis for expected whitebark pine mortality was completed for the Green Union project on the Shoshone National Forest (USDA 2024). This analysis estimated that their treatments would likely kill 1,310,082 whitebark pine seedlings, 351,892 saplings, and 12,433 mature trees. The availability of regeneration (seedlings

and saplings) on treated acres has to be provided for the Cooke City Project. If this regeneration potential will be significantly reduced, this must be identified to the public and addressed as per project impacts on whitebark pine persistence. This is especially critical as the project is being proposed as enhancement of whitebark pine. Effects of the project on regeneration is an essential impact to address.

Several other impacts of the proposed enhancement of whitebark pine stands that were ignored included the severe loss of genetic diversity that this project will create on over 3,000 acres of whitebark pine in the project area. As was noted in the USFWS 2023 standing analysis on whitebark pine, seedling whitebark pine are generally 3-4 inches dbh, up to 4.5 feet tall, and up to 29 years in age. Sapling whitebark pine are over 4.5 feet tall, and up to 40 years in age. Thus the existing regeneration of whitebark pine in the treated stands will include the last 40 years of recruitment. This 40 years of genetic diversity will be severely reduced due to mortality created by the project, which we note includes 2 entries in many cases. Seedlings and saplings that survived the initial entry could easily be killed during the second entry. The agency did not define how this potentially severe loss of genetic diversity from the last 40 years will impact stand persistence. As was noted by Keane et al. (2022), retaining genetic diversity in whitebark pine stands is an important action to enhance resilience to allow forests to respond to new disturbances.

The agency also did not address the information provided in the USFWS 2023 standing analysis for whitebark pine that this tree is actually much more shade tolerant than initially believed; it was noted that these younger trees can release to increased growth even after 150 years of being repressed by shade. In effect, the whitebark pine recruitment pool does not have to be treated to allow a release of growth, as this will happen naturally when conditions are right, such as stand opening from mountain pine beetles or blister rust. So non-treatment of these whitebark pine stands will ensure that a recruitment pool remains over time, to ensure stand persistence.

The agency acknowledges that the effectiveness of whitebark pine treatments in triggering regeneration is not proven. This is consistent with Keane and Parsons (2010) who found that treated whitebark pine stands lacked any recruitment after 40 years. This study also noted that recruitment in whitebark pine stands is problematic due to a number of factors; severe site conditions can kill emerging seedlings; steep, high-mountain areas experience deep snowpack (up to 50 feet of snow), and creep of snowpack downslope can pull seedlings out of the ground; most soils are highly erosive with spring snowmelt scouring the topsoil, including washing away seedlings established in these soils, especially in burned sites; soils in disturbed

sites may require up to 40 years to stabilize enough to allow whitebark pine seedlings to become established.

It is unclear as to what extent prescribed burning will be applied to these whitebark pine “enhancement” treatments. But again, as was noted by the USFWS 2023 standing analysis, whitebark pine is highly sensitive to fire due to thin bark. In addition, as was noted by Keane et al. (2022), fire will kill whitebark pine seedlings and saplings. This paper at page 10, in discussing prescribed fire management in whitebark pine stands, notes: mechanical treatments may be enhanced by prescribed burning because, “hopefully,” fire will kill most of the small and large shade-tolerant tree competitors, and leave the more fire-tolerant whitebark pine individuals. Hoping that fire isn’t going to kill whitebark pine seedlings and saplings during “enhancement activities” is hardly a valid management strategy.

The agency did not address how treatments on 3,218 acres will affect site and climatic conditions for whitebark pine.

The At-risk Plants Effects Analysis for the Cooke City Project addresses some of the ongoing and expected impacts of climate change. For example, page 12 notes that as temperatures increase, snowpack in the region is expected to decline, which will occur earlier and quicker; this will create reductions in riparian habitat, reductions in soil moisture; changes in temperatures and water resources can influence plant phenology, plant recruitment, and plant

succession patterns. Page 13 of this report notes that over the historical period of record (1905-2012), the annual mean monthly minimum temperature increased by about 2.9 degrees Fahrenheit, while the annual mean maximum temperatures increased by about 1.2 degrees Fahrenheit; within the Greater Yellowstone Ecosystem subregion, temperature is projected to increase 5-10 degrees Fahrenheit for the annual mean minimum temperature, and by 7-12 degrees for the mean monthly maximum by 2100. Page 14 notes that if current projections are realized, changes to long-term weather patterns will likely continue to exacerbate the existing primary threats to whitebark pine; this includes potential increases in forest diseases and pest damage; growing season lengths, and drought stress.

Forest thinning, as is proposed for all the whitebark pine forest stands in the Cooke City Project Area, will increase growing season temperatures above what is occurring naturally due to reduced tree density and reduced shade, and increase the loss of spring snowpack. Trees are noted to be an important factor in affecting forest temperatures (Millman 2024; Knoss 2016). Forest thinning will thus reduce soil moisture availability for whitebark pine, including seedlings and saplings. This adverse impact on mature and immature whitebark pine for the proposed Cooke City project is never evaluated. Increasing drought stress for this tree clearly does not qualify as “habitat

enhancement,” the claimed purpose of many treatments, in violation of the NEPA and the ESA.

The agency fails to identify the scientific recommendations for sustaining whitebark pine forests, or to include any action alternative that would employ this strategy.

The fate of whitebark pine depends heavily upon populations of the Clark’s Nutcracker (Wells 2011). This nutcracker is essential for dispersal of whitebark pine seeds (Id.). At the same time, populations of this nutcracker depend upon landscape availability of conifer seeds, especially ponderosa pine and Douglas fir (Wells 2011; USFWS 2023; Schaming 2016). Thus a land management strategy to support whitebark pine requires the provision of vast tracts of older conifer stands that will ensure adequate conifer seed availability for this nutcracker. Conifer seed production increases along with tree age and stand density (Benkman 1996). The Cooke City Project includes no such conservation strategy for the Clark’s Nutcracker, or as such, for the whitebark pine, and is a violation of the NEPA as well as the ESA for failure to use the current best science for managing at-risk species, including the threatened whitebark pine.

The CGNF Revised Forest Plan has no conservation strategy for the Clark’s Nutcracker, even though this is noted to be a Montana Species of Concern (noted in project

wildlife report). It is also identified as a Priority Level III species by the Montana Partners in Flight (2000). These are species of local concern, species that may be poorly monitored by BBS, but have a need for monitoring and possibly designed conservation actions.

Claims made that clearcutting or creating openings in forest stands will increase regeneration of whitebark pine due to caching by the nutcracker are clearly false. As was noted by both Wells (2011) and the USFWS (2023), the majority of whitebark pine seeds (up to 85%) cached by nutcrackers are placed in trees. Why would a bird bury seeds for winter use in areas that will be under up to 50 feet of snow? Areas where seeds are cached on the ground include exposed ridges where snow doesn't accumulate, or at lower elevations, such as in ponderosa pine stands (Id.). Forest thinning will actually reduce caching activity of whitebark pine seeds by nutcrackers, as trees available for cache sites will be reduced.

The agency is providing a false rationale for the proposed Cooke City Project by claiming it is a whitebark enhancement project.

The Cooke City project is supposedly being implemented to “enhance” whitebark pine. The Vegetation Effects Analysis for the project states that issue 2 is to “improve the health and conditions of the forest ecosystems to

include whitebark pine through vegetation management.” This report at 12 states that non-commercial treatments will be completed to improve the composition, structure, condition, health, and growth of whitebark pine on 2,013 acres. These enhancement treatments include non-mechanical treatments to remove all trees 8 inches dbh or smaller from 5-30 feet outside the whitebark pine crown; mechanical enhancement treatments include cutting all trees within 5-30 feet of the whitebark pine crown. These mechanical treatments will require 2 entries, one to cut down trees, and a second to pile fuels (At-risk Plants Effects Analysis page 10). However, the entire project area treatment units include whitebark pine; the Wildlife Report at 8 states that whitebark pine is present on all 3,218 treatment acres. As we noted previously, the At-risk Species report for this project identified numerous uncertainties about the impacts of the proposed mechanical and non-mechanical thinning of whitebark pine. What is more notable is that the agency has dropped a monitoring project to determine how thinning of whitebark pine would affect cone production, regeneration, and use by Clark’s Nutcrackers (USDA 2011; USDA 2014). A monitoring study was initiated in 2011, with study and control plots established in 2 areas along Fish Creek, on the north side called the Sheep Mountain units, and on the south side called the Henderson Mountain units. Both study areas included control and treatment plots, intermingled along the landscape (see maps in USDA 2011; USDA 2014). The

Henderson Mountain study area included 2 treatment units and 2 control units, while the Sheep Mountain units included 3 treatment units and 3 control units (USDA 2011 Table 1). The total acreage in the study plots for Henderson Mountain is 145.6 acres, and 273.5 acres for the Sheep Mountain study plots. All of these study plot acres are included in the proposed Cooke Mountain Project. The Henderson Mountain study plots are located in the Cooke City Project units 28, 29, 30, 85, 87 and 88, which will treat a combined 221 acres. The Sheep Mountain study plots are included in the Cooke City Project units 79A, 79B, 82, 83m 105A and 105B, which will treat a combined acreage of 298.3 acres. All study plots in both Sheep Mountain and Henderson Mountain will have whitebark pine “enhancement” treatments. Thus these study plots will no longer provide any monitoring potential as per treatment effects on cone production, regeneration, or use by Clark’s Nutcrackers.

This Cooke City whitebark pine restoration project was completed in 2013, and monitored for one year, in 2014 (USDA 2014). It was noted that this time period was too short to be conclusive. There has been no subsequent monitoring of these study plots since 2014, or for the last 11 years. Yet the Custer-Gallatin National Forest has monitored 37 other projects, which are listed on their web page (USDA 2025, Inventory & Monitoring: implementation & effectiveness monitoring on the website

of the Custer-Gallatin National Forest). In spite of the agency's failure to actually monitor the effect of whitebark pine "restoration activities" initiated in 2011, the agency now claims that these types of treatments will "enhance" the health of whitebark pine stands. This is a violation of the NEPA, the NFMA and the ESA, as the agency is providing unsubstantiated claims for treating the threatened whitebark pine in the Cooke City project area, when they have failed to complete monitoring on potential effects to this threatened species as per the Cooke City whitebark pine monitoring program.

The agency failed to identify that the proposed whitebark pine enhancement project will have severe adverse impacts on the threatened grizzly bear, in violation of the NEPA and the ESA.

The project Wildlife Report claims repeatedly that these forest thinning projects will improve habitat for the grizzly bear by increasing forage. What type of forage, and why it is currently limited for bears, was never identified.

However, one of the key forages known for grizzly bears are whitebark pine seeds. And the Cooke City Project will significantly reduce this key forage for grizzly bears over the long term by killing mature, cone-producing whitebark pine trees directly during project activities, damaging these trees from soil compaction and mortality due to pile burning, increasing their vulnerability to bark beetle attacks

due to increased growth that will result from thinning, and potentially, increase their risk to white pine blister rust due to possible increases of a host species, the Ribes shrub within thinned areas of the forest. Indirectly, the grizzly bear will be adversely affected by this project as whitebark pine recruitment for the last 40 years or more will be significantly destroyed; this destruction will be worst within mechanical treatment units where there will be 2 entries for disturbance. Whitebark pine population persistence will also be adversely impacted as the diversity provided by 40 years of whitebark pine recruitment will also be lost, including young trees that may have adaptations against the white pine blister rust.

Many of the above effects are long-term consequences of these forest thinning projects. However, there will be a direct, immediate impact to grizzly bears with these forest thinning projects by reducing populations of red squirrels. As was noted by Reinhart and Mattson (1990), red squirrel populations are essential to make whitebark pine cones available to bears by storing these cones in squirrel middens. This study noted that forest stand density of at least 90 square feet per acre is needed to maintain red squirrels. Stand density, along with a mixed tree species composition, together ensures populations of red squirrels will have an adequate supply and diversity of conifer cones for persistence, since pure stands of whitebark pine lack the diverse composition of conifer trees required to provide a

consistent cone resource to squirrels (Id.) Removing other conifers from a stand that contains whitebark pine essentially eliminates these areas as red squirrel habitat because cone production will be severely reduced, with only one conifer species producing such, making persistence for red squirrels unlikely. Research has shown that there is a direct correlation between red squirrel populations and population densities (Herbers and Klenner 2007; Holloway and Malcolm 2006). The Cooke City project will clearly have direct, adverse impacts on grizzly bear access to a key food source, whitebark pine cones, and as such, this project will not improve grizzly bear forage, as is falsely claimed by the agency. The proposed actions will not promote conservation of this threatened species.

Grizzlies

We wrote in our comments:

How many road closure violations have there been in the last 5 years in the Ranger district?

It is fair to assume that there are many more violations that regularly occur and are not witnessed and reported. It is also fair to assume that you have made no effort to request this available information from your own law enforcement officers, much less incorporate it into your analysis. Considering your own admissions that road density is the primary factor that degrades elk and grizzly habitat, this is a material and significant omission from

your analysis— all of your ORD and HE calculations are wrong without this information.

Moreover, in light of the fact that eliminated hiding cover standards in the revised Forest Plan which were designed to protect and conserve elk habitat, there are no protections left for elk and grizzly habitat. Chronic, illegal road use is reasonably foreseeable and must be addressed in the cumulative effects analysis.

Additionally, your emphasis on elk populations across entire hunting districts is disingenuous and has little relevance to whether you are meeting your Forest Plan obligations to maintain sufficient elk habitat on National Forest lands. As you note, the Forest Plan estimated that 70% of elk were taken on National Forest lands in 1986. What percentage of elk are currently taken on National Forest lands? Have you asked Montana FWP for this information? Any honest biologist would admit that high elk population numbers do not indicate that you are appropriately managing National Forest elk habitat; to the contrary, high elk numbers indicate that you are so poorly managing elk habitat on National Forest lands that elk are being displaced to private lands where hunting is limited or prohibited. Your own

Forest Service guidance document, Christensen et al 1993 states: “Reducing habitat effectiveness should never be considered as a means of controlling elk populations.”

The recurring problem of road closure failures undermines the foundation of the Forest Plan’s wildlife

security standards, which relies on these road closures to achieve certain densities of open and total roads both inside and outside the Recovery Zone. The agencies must address this problem and its impacts in an updated ESA consultation for the Forest Plan and this project.

Roads pose a threat to big game and grizzly bears because roads provide humans with access into big game and grizzly bear habitat, which leads to direct bear mortality from accidental shootings and intentional poachings. Big game flee onto private lands during hunting season. Human access also leads to indirect bear mortality by creating circumstances in which bears become habituated to human food and are later killed by wildlife managers. Human access also results in indirect mortality by displacing grizzly bears from good habitat into areas that provide sub-optimal habitat conditions.

Displacement may have long term effects: “Females who have learned to avoid roads may also teach their cubs to avoid roads. In this way, learned avoidance behavior can persist for several generations of bears before they again utilize habitat associated with closed roads.” Both open and closed roads displace grizzly bears: grizzlies avoided roaded areas even where existing roads were officially closed to public use.

Females with cubs remained primarily in high, rocky, marginal habitat far from roads. Avoidance behavior by bears of illegal vehicular traffic, foot traffic, and/or authorized use behind road closures may account for the lack of use of areas near roads by female grizzly bears in

this area. This research demonstrated that a significant portion of the habitat in the study area apparently remained unused by female grizzlies for several years. Since adult females are the most important segment of the population, this lack of use of both open-road and closed-road areas is significant to the population.

In addition to having a significant impact on female grizzly bears, displacement may also negatively impact the survival rates of grizzly cubs: “survivorship of the offspring of females that lived in unroaded, high elevation habitat was lower than that recorded in other study areas in the [Northern Continental Divide Ecosystem]. The majority of this mortality was due to natural factors related to the dangers of living in steep, rocky habitats. This is important in that the effects of road avoidance may result not only in higher mortality along roads and in avoidance of and lack of use of the resources along roads, but in the survival of young when their mothers are forced to live in less favorable areas away from roads.

Please clarify what percent of roads that projects call to be closed will actually be closed. What percentage of roads that are called for to be closed will not be closed because you still waiting for funds to close or obliterate those roads? This distinction matters because you cannot honestly claim that you are meeting road density standards promised by the Travel Plans’ EIS and Decision if you have not yet completed the road closures/obliterations promised by the Travel Plans. Furthermore, as noted above, you have a major problem with recurring,

chronic violations of the road closures created by the Travel Plan, which means that your assumptions in the Travel Plan that all closures would be effective has proven false. For this reason, you cannot tier to the analysis in the Travel Plan because it is invalid. You must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use.

The project is in Violation of the ESA – failure to address and evaluate effects to grizzly bears in the lower-48 States or grizzly bear recovery. Section 7 of the ESA requires the Forest Service to consult with FWS on how the revised forest plan may affect listed species, including grizzly bears, which are listed as a single, threatened species in the lower-48 States.

The project and the Forest Plan are not following the best available science for grizzly bears. The project defines secure grizzly bear habitat as being 10 acres or greater in size. Proctor et al 2020 conclude:

“Motorized access has been shown to influence grizzly bears at the individual and population levels. People in motorized vehicles affect grizzly bear habitat use, home-range selection, movements, population fragmentation, and demography including survival and reproduction, which ultimately affects bear density, population trends, and conservation status. Integrating habitat quality into road management improves the efficiency and

effectiveness in reaching management goals, such as managing for few or no roads within 500 m of habitats containing late summer and autumn hyperphagia food resources, such as major berry fields, salmon streams where bears can effectively catch fish, and high-quality white- bark pine stands. Further, in populations with moderate habitat quality and close to human settlements, road densities near 0.6 km/km² with >60% secure habitat (i.e., >500 m from an open road) are meaningful thresholds that, if not exceeded, may allow female grizzly bears to have sustainable survival rates. In other areas, population- specific thresholds may be appropriate, such as where conservation is a major concern, because poor habitat quality limits reproductive rates and very little human- caused mortality can be sustained. In areas that are further from human population centers and have large patches of high-quality habitat, the bear population could tolerate higher overall road densities provided large, high-quality patches have no roads.

Our consensus of prioritizing the use of motorized access management across occupied grizzly bear terrain was that “Threatened” populations, or populations of conservation concern (documented or suspected population declines, excessive reported mortality, and areas with high human footprints), were a first priority. Next, we conclude that habitat quality is an integral part of understanding grizzly bear responses to roads and, if integrated, will increase the efficiency and effectiveness of road management programs. Therefore, managers should allow for habitat security with zero or low road densities

in high-quality foraging habitats where major summer–autumn hyperphagia energy-rich food sources are used heavily. This could entail maintaining low road densities in currently safe habitats (where habitat quality is high and mortality risk is low) and applying motorized access controls in areas of sink habitats (where habitat quality and road densities are high).”

Why is the project not following the best available science. Please find Proctor et al attached.

The Eastside Assessment, the guiding document for elk management on the HLC, was not even cited in the Wildlife Report. So these recommendations were obviously not used in the development of this project. Also, it is not clear specifically how elk security, or habitat effectiveness, is being measured for this project. Does it require cover? And for both elk and grizzly bears, it appears that logging and other administrative motorized traffic is not included in displacement effects on either species. So the impact of motorized travel is apparently not being measured correctly. We note that the Eastside Assessment requires that road traffic over 2 trips per 12 hours is a displacement effect on elk.

There is no analysis of project impacts on grizzly bear security in the project area. Also, security habitat is defined as an area 10 acres or larger in size over 0.3 miles

from a motorized route. The scientific definition of grizzly bear security is an average several day foraging range, and typically is defined as at least 2,500 acres. Also, the current best science defines the level of security for grizzly bears should be 68% of the landscape; areas outside of security should have an open road density of no more than a mile per section in order to promote grizzly bear persistence and habitat use. It is unclear what these criteria are in the Cooke City project area, if these are adequate, or how they will be impacted by the project. It is clear that active motorized route density will increase, along with increases in mortality/displacement impacts on grizzly bears. These impacts will clearly be adverse, which requires consultation with USFWS.

The Forest Service's and FWS's failure to consider and evaluate how the revised forest plan and removal of all wildlife standards may affect grizzly bears in the lower 48 states or grizzly bear connectivity or movement and grizzly bear recovery in the lower 48 States is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with ESA.

In consulting on the revised forest plan under section 7 of the ESA, the Forest Service and FWS failed to evaluate and analyze how its decision to remove all wildlife standards for big game may affect grizzly bears,

wolverines, monarch butterflies, lynx, and lynx critical habitat.

The Forest Service's biological assessment does not evaluate and analyze in the environmental baseline, effects of the action, and cumulative effects, how the removal of all wildlife standards may affect grizzly bears, wolverines, monarch butterflies, lynx, or lynx critical habitat.

FWS's biological opinion does not evaluate and analyze in the environmental baseline, effects of the action, and cumulative effects how removal of all wildlife standards may affect grizzly bears, wolverines, monarch butterflies, lynx, or lynx critical habitat. FWS's "no jeopardy" finding in the biological opinion does not evaluate and analyze how the removal of wildlife standards may affect grizzly bears, wolverines, monarch butterflies or lynx. FWS's "no adverse modification" finding in the biological opinion does not evaluate and analyze how the removal of wildlife standards may affect lynx critical habitat.

The removal of all wildlife standards in the revised forest plan is likely to adversely affect grizzly bears, wolverines, monarch butterflies, lynx, lynx critical habitat, and connectivity on the forest and is an important and relevant factor that must be (but was not) considered during the consultation process.

The Forest Service's and FWS's failure to consider and evaluate how the removal of all ten wildlife standards may

affect grizzly bears, wolverines, monarch butterflies, lynx, and lynx critical habitat is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with ESA. 5 U.S.C. § 706 (2)(A).

In consulting on the revised forest plan under section 7 of the ESA, the Forest Service and FWS relied on compliance with the “1998 baseline” from the 2018 grizzly bear standards. The Forest Service relied on the 1998 baseline and two different Travel Plans when evaluating the environmental baseline, effects of the action, and cumulative effects in the biological assessment and is relying on this for the South Plateau project.

FWS relied on the 1998 baseline when defining the proposed action and evaluating the environmental baseline, effects of the action, and cumulative effects in the biological opinion. FWS’s “no jeopardy” finding relied on compliance with the 1998 baseline.

The 1998 baseline was never subject to NEPA review. The Forest Service and FWS never consulted on the 2011 baseline. Please do a NEPA review of the 1998 baseline or the project will be in violation of NEPA, NFMA and the ESA.

The 1998 baseline is outdated and not premised on the best available science. The 1998 baseline fails to account for the most serious threats to grizzly bears, including the threat from human-caused mortality. The 1998 baseline does not address the loss of hiding cover. The 1998

baseline does not address private land development. The 1998 baseline does not address cumulative effects. The 1998 baseline does not address temporary increases in road densities. The 1998 baseline allows up to six years of exceeding of road densities and secure core.

The 1998 baseline does not address the administrative use of roads, which is broadly defined and includes motorized uses for projects. Significant changes to grizzly bear habitat, distribution, and food sources have occurred in the Custer Gallatin National Forest since 2011. The 1998 baseline does not address changes to grizzly bear food sources. Threats to grizzly bears in the Custer Gallatin National Forest have changed since 2011.

The Forest Service and FWS never explained why the 1998 baseline is and remains the proper metric by which to evaluate and measure impacts to grizzly bears and grizzly bear recovery in the action area, including in the recovery zone or management zone 1. The 1998 baseline is not a proxy or surrogate for analyzing the effects of an action (the revised forest plan and removal of ten wildlife standards) on grizzly bears or grizzly bear recovery.

NEPA requires the Forest Service to adequately disclose, consider, and analyze the direct, indirect, and cumulative effects of its proposed actions. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and occur later in time or farther removed in distance, but are reasonably foreseeable.

Cumulative effects are the impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

The Forest Service's EIS for the revised forest plan fails to adequately analyze the direct and indirect effects of removing all wildlife standards from the Custer Gallatin Forest Plan, including standards designed to protect hiding cover and limit open road densities on big game species and habitat (including security), grizzly bears, grizzly bear habitat, grizzly bear movement and recovery, lynx, lynx habitat, and lynx critical habitat.

The Forest Service's EIS for the revised forest plan fails to adequately analyze the cumulative effects of removing all wildlife standards from the Custer Gallatin Forest Plan, including standards designed to protect hiding cover and limit open road densities on big game species and habitat (including security), grizzly bears, grizzly bear habitat, grizzly bear movement and recovery, lynx, lynx habitat, and lynx critical habitat. Other activities occurring on the Custer Gallatin National Forest, including livestock grazing, recreational uses, logging, and climate change are having and continue to have a cumulative effect on big game species and habitat, grizzly bears, grizzly bear movement and recovery, lynx, lynx habitat, and lynx critical habitat.

The Forest Service's failure to analyze the direct, indirect, and cumulative effects of removing all wildlife standards is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with NEPA.

NEPA requires the Forest Service to adequately consider and analyze a reasonable range of alternatives.

Under NEPA, the alternatives analysis is "the heart" of the environmental analysis because it presents impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options. The alternatives analysis guarantees that agency decisionmakers have before them and take into proper account all possible approaches to a particular action (including total abandonment of the action) which would alter the environmental impact and the cost-benefit balance.

The Forest Service's EIS for the revised forest plan fails to consider and analyze a reasonable range of alternatives to removing all wildlife standards from the Custer Gallatin Revised Forest Plan. The Forest Service only took an all (remove all wildlife standards) or nothing (keep all wildlife standards) approach.

The Forest Service's EIS for the revised Forest Plan never evaluated keeping some of the wildlife standards. The Forest Service never evaluated amending or modifying some or all of the ten wildlife standards (including the numeric requirements for retaining hiding cover and

limiting open road densities). The Forest Service never evaluated an alternative that includes specific Management Area direction with standards in areas deemed critical for big game habitat and security. The Forest Service never evaluated and compared a wide range of new and varying standards with varying numeric limits for managing big game habitat and security on the forest based on the best available science.

The Forest Service's failure to consider and analyze a reasonable range of alternatives is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the NEPA. 5 U.S.C. § 706 (2)(A).

The Forest Service's and FWS's reliance on the 1998 baseline when consulting on the revised forest plan is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with ESA. 5 U.S.C. § 706 (2)(A).

The Forest Service responded:

Potential impacts of proposed activities to grizzly bear secure habitat were disclosed in the wildlife report.

The Project violates the Forest Plan; the Project EA violates NEPA; and/or the Revised Forest Plan violates the NFMA planning regulations regarding grizzlies.

The 2012 Planning Rule mandates: "Ecosystem Integrity. The plan must include plan components, including standards or guidelines, to maintain or restore the ecological integrity of terrestrial . . . ecosystems . . . in the plan area, including plan components to maintain or restore . . . function . . . and connectivity[.]" 36 C.F.R. §219.8 (a) (1),

The 2012 Planning Rule defines "connectivity:"
"Ecological conditions . . . that provide landscape linkages that permit the . . . the dispersal and genetic interchange between populations" 36 C.F.R. §219.19.

The 2012 Planning Rule defines "ecological conditions" to include "roads" and "human uses." 36 C.F.R. §219.19.

The 2012 Planning Rule further states: "The responsible official shall determine whether or not the [coarse filter, habitat-based] plan components required by paragraph (a) of this section provide the ecological conditions necessary to: contribute to the recovery of federally listed threatened . . . species If the responsible official determines that the plan components required in paragraph (a) are insufficient to provide such ecological conditions, then additional, species-specific plan components, including standards or guidelines, must be included in the plan to provide such ecological conditions in the plan area." 36 C.F.R. §219.9 (b)(1).

The 2012 Planning Rule explains: "NFS lands are a major contributor to threatened and endangered species recovery plans and actions As part of the Forest Service

mission, the actions needed to recover T&E species . . . are a high priority. . . . As did the proposed rule, the final rule requires that the plan include plan components to provide ecological conditions in the plan area necessary to contribute to the recovery of T&E species, using coarse-filter plan components and adding species-specific plan components where necessary. While the 1982 rule . . . did have specific requirements . . . the requirement in the final rule that requires plan components to provide ecological conditions to ‘contribute to the recovery of’ T&E species is more comprehensive.”

The Project does not meet Forest Plan Desired Condition BB-WL-DC-03 because it fails to ensure “connectivity,” as that term is defined by the regulations, between the NCDE and Yellowstone grizzly populations.

The Project EA fails to take a hard look at connectivity, including the purpose and intent of Forest Plan Desired Condition BB-WL-DC-03, and the ways that the Project could help to restore and achieve connectivity as envisioned by the Forest Plan. There is no meaningful discussion of the importance of establishing genetic connectivity between NCDE and Yellowstone grizzly populations, the necessity of that genetic connectivity for recovery of the grizzly population as a whole, and the ways in which current Forest Service management practices at the Project level, including this Project, are preventing the Big Belts from providing for connectivity. The Project area is currently failing every known scientific threshold for elk security (30%), elk habitat effectiveness (50%), and grizzly

bear secure habitat (55% or 68%). Additionally, the Project EA does not disclose road density between secure habitat blocks, which is a necessary element of any meaningful analysis of the impacts of roads on grizzly bears according to the best available science. The Forest Service's failure to take a hard look at connectivity, and failure to consider a reasonable range of alternatives that includes an alternative that implements the road closures necessary to allow the area to function as a connectivity corridor, violate NEPA and the APA.

REMEDY

Choose the No Action Alternative or withdraw the Draft Decision Notice and write an EIS that fully complies with the law.

Thank you for your time and consideration of our concerns.

Sincerely yours,

Mike Garrity

/s/

(Lead Objector)

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