May 1, 2023

Objection against the Draft Decision Notice, FONSI, and Environmental Assessment for the South Plateau Area Landscape Treatment Project, Forest Service, Custer Gallatin National Forest,
Hebgen Lake Ranger District

Identification of Objectors:

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

PO Box 505

Helena, MT 59624;

Phone 406-459- 5936.

And for

Sara Johnson

Native Ecosystems Council

PO Box125
Willow Creek, MT 59760

And for

Steve Kelly

Council on Wildlife and Fish

P.O. Box 4641

Bozeman, MT 59772

And for

Adam Rissien
Rewilding Manager
WildEarth Guardians
406-370-4147
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And for

Jason L. Christensen – Director

Yellowstone to Uintas Connection

P.O. Box 363
Paris, Idaho 83261

And for

Kristine Akland

Center for Biological Diversity

P.O. Box 7274
Missoula, MT 59807

kakland@biologicaldiversity.org

Signed for Objectors this 1st day of May 2023

/s/ Michael Garrity

Michael Garrity

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

The Responsible Official, Hebgen Lake District Ranger Jason Brey, has made available a Draft Decision Notice for the South Plateau Project and its associated Finding of No Significant Impact (FONSI). The South Plateau project area is in the Hebgen Ranger District of the Custer Gallatin National Forest (CGNF) and covers approximately 39,900 acres and includes the Lower, Middle, and Upper South

Fork Madison River watersheds within Gallatin County, Montana. The South Plateau project area is just south and west of West Yellowstone, Montana.

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/project/custergallatin/?project=57353

The Forest Supervisor is planning the proposed action or selected alternative. This decision includes management activities on 16462 acres. The selected alternative calls for clearcutting (5551 acres), prescribed burning and fuels treatment (1642 acres), commercial logging (6593 acres), non-commercial logging (2514 acres), small diameter logging (1048 acres),aspen logging (162 acres), and new construction of so called “temporary” roads (56.8 miles.)

As a result of the Draft DN, individuals and members of the above mentioned groups, hereafter (Alliance) would be directly and significant-ly 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 406 459-5936

And
Sara Johnson
Native Ecosystems Council

P.O. Box 125
Willow Creek, MT 59760

And

Steve Kelly

Council on Wildlife and Fish

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Kristine Akland

Center for Biological Diversity

P.O. Box 7274
Missoula, MT 59807

kakland@biologicaldiversity.org

2. Signature of Lead Objector:

Signed this 1st day of May 2023 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:

South Plateau Area Landscape Treatment Project; Hebgen Lake District Ranger Jason Brey is the Responsible Official; The project is in the Hebgen Lake Ranger District of the Custer Gallatin National Forest. Ranger Brey chose

the proposed or selected action in the Draft Decision Notice and FONSI.

NOTICE IS HEREBY GIVEN that Alliance 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 South Plateau project area is south and west of West Yellowstone, Montana in the Hebgen Lake Ranger District of the Custer Gallatin National Forest in Gallatin County. The project area extends from US Highway 20 West to Reas Pass and is bordered by the Continental Divide National Scenic Trail on the west and Yellowstone National Park on the east. The project area is approximately is approximately 39,900 acres.

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 South Plateau Project. Please accept this objection from me on behalf of the Alliance for the Wild Rockies and Native Ecosystems Council.

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, big game species, and wildlife dependent upon unlogged. 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 agency will also be exacerbating an ongoing problem of displacing elk to adjacent private lands in the hunting season due to a lack

of security on public lands. 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.

Supporting Reasons for the Reviewing Office to Consider

This landscape has very high wildlife values, including for the threatened grizzly bear, and lynx, big game species, and wildlife dependent upon mature forest habitat. The project area is 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 agency will also be exacerbating an ongoing problem of displacing elk to adjacent private lands in the hunting season due to a lack of security on public lands. The public

interest is not being served by this project. We incorporate our previous comments and objection into this objection.

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 March 15, 2023, 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 ESA, NEPA, NFMA, the Gallatin National Forest Revised 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:

A. Disclose all Custer Gallatin National Forest Plan requirements for logging/burning projects and explain how the Project complies with them;

B. Will this project comply with forest plan big game hiding cover standards and the eastside assessment?

The Forest Service responded:

The Revised Forest Plan no longer has a standard for hiding cover. The Plan includes one guidline related to key habitats that was considered in the analysis. In order to assess compliance with this FP direction, the Custer, Gallatin, Helena, and Lewis and Clark National Forests - Framework for Project- Level Effects Analysis on Elk document (non-prescriptive white paper that provides a menu of analytical methods to assess the potential effects of Forest Service project activities on elk habitat) was used to guide the analysis of elk for this project. Refer to pages 104-107 for methodolody and 111-119 for effects analysis in the wildlife report.

This is a violation of NEPA, NFMA, the APA and the ESA. The project will harm habitat for grizzlies, lynx, wolverine

and big game and other wildlife and the Eastside assessment.

1. The Project EA and draft decision notice fail to analyze habitat effectiveness, and fails to demonstrate that the Forest Service is maintaining habitat effectiveness, in violation of NEPA and NFMA.

Forest Plan Forest-wide Standard C-1(2) mandates: "Utilize the general concepts presented in Agriculture Handbook No. 533, Wildlife Habitats in Managed Forests. . . . When more site specific management recommendations are available through the Forest Service or [Montana Department of Fish, Wildlife, and Parks] those recommendations will be followed."The most recent site specific management recommendations available through the Forest Service and Montana Fish, Wildlife, and Parks for elk habitat management on this Forest are set forth in "U.S. Forest Service and Montana Department of Fish Wildlife and Parks Collaborative Overview and Recommendations for Elk Habitat Management on the Custer, Gallatin, Helena, and Lewis and Clark National Forests," which is commonly referred to as the "Eastside Assessment." Thus, in order to comply with Forest-wide Standard C-1(2), the Eastside Assessment recommendations must be followed. The Eastside Assessment states: "At the project level an elk habitat effectiveness analysis should be conducted."

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

We wrote in our comments:

C. Disclose the acreages of past, current, and reasonably foreseeable logging, grazing, mining, and road building activities within the Project area;

Disclose the cumulative impacts on the Forest-wide level of the Custer Gallatin National Forest's policy decision to replace natural fire with logging and prescribed burning;

If the Forest Service did not conduct NEPA for the Fire Plan, please disclose the cumulative effects of Forest-wide implementation of the Fire Plan in the project EIS, or EA if you refuse to write an EIS, to avoid illegally tiering to a non NEPA document. Specifically analyze the decision to prioritize mechanical, human-designed, somewhat

arbitrary treatments as a replacement for naturally-

occurring fire.

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.

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.

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 decision makers 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 Plannever 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 responded:

Cumulative effects are analyzed in the wildlife report.

The Forest Service did not analyze all of the cumulative impacts. For example, there is no mention of the proposed Rendezvous Nordic Ski Area Improvements project in the wildlife report.

The Forest Service did not analyze the cumulative effects of the proposed Rendezvous Nordic Ski Area Improvements project, https://www.fs.usda.gov/project/custergallatin/?project=63829, in conjunction with the South Plateau project in violation of NEPA, NFMA and the APA. The Rendezvous Nordic Ski Area Improvements project proposes to install outdoor lights along nine miles of trail and in the Stadium Area, asphalt surfacing on 2.3 miles of existing trail to improve accessibility and expand summer recreation opportunities to include roller-skiing, bicycling, and other roller sports. The proposed paving would accommodate a variety of loops, from about 0.2 miles to 2 miles in length. The proposal also calls for constructing up to three rental yurts. None of this was analyzed in for the cumulative effects on wildlife.

The Forest Service did not adequately analyze the cumulative effects of the revised forest plan, recreation, fire suppression, logging, illegal road use, on wildlife in violation of NEPA, NFMA, the APA and the ESA.

Remedy

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

We wrote in our comments:

Please see the attached paper by Dr. William Baker 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 com- plies 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. Moritiz 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 af- fect 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 Rock- ies 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 ig- nition at a time when the climate is warming and more fire is com- ing."

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-pres- sure blocking systems that promote extremely dry regional climate pat-terns." 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 re- lationship between time elapsed since the last fire and fuel abun- dance 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 cli-mate rather than in fuels appears to exert the largest influence on the size, timing, and se-verity 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 ex- treme 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 ef- forts 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 out-side the his-toric range of variability."

Please find Schoennagel et al (2004) attached.

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 in- creased 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.

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.

"Forest policy must be informed by sound science but, unfortunately, the public has been receiving a biased and inaccurate presentation of the facts about forest density and wildfires from government agencies," said Dr. William Baker in their press release announcing the publication of their paper.

"The forest management policies being driven by this falsified scientific narrative are often making wildfires spread faster and more intensely toward communities, rather than helping communities become fire-safe," said Dr. Chad Hanson, research ecologist with the John Muir Project in the same press release. “We need thinning of small trees adjacent to homes, not backcountry management.”

"The falsified narrative from government studies is leading to inappropriate forest policies that promote removal of mature, fire-resistant trees in older forests, which causes increased carbon emissions and in the long-run contributes to more fires" said, Dr. Dominick A. DellaSala, Chief Scientist, Wild Heritage, a Project of Earth Island Institute concluded in the press release.

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

REMEDY

Withdraw the draft Decision Notice and write an EIS that fully complies with the law.

We wrote in our comments:

Conditions based management

Conditions based analysis relies heavily on design features to minimize the detrimental effects of project actions on soils, streams, ecological resources, bull trout, lynx, white bark pine, elk, rare plants, and all other flora and fauna in the project area. Design features are mentioned 54 times in the DEA alone. How will BNF guarantee that these design features will be followed? Are any of these design features dependent on future funding? What will be the consequences for not fulfilling the necessary design features to minimize effects to the forest?

The agency needs to identify all existing old growth stands in the South Plateau Project Area, and define their individual patch size, and map their locations across the project area. The agency also needs to identify what the proposed logging and/or burning treatment is for each of these old growth stands, is required by the NEPA for project decisions.

There is no map of the big game winter range in the South Plateau Project area, or any information of where remaining thermal cover exists, or where it will be

removed with this project. The current condition of thermal cover in this project area is important information to the public, as it demonstrates how the agency is implementing the forest plan.

There are no maps provided of where existing or planned security areas will be in the South Plateau project area, in violation of the NEPA. There is also no analysis of how only 15% security (at best) is affecting elk displacement to private lands, given a minimum of 30% security is recommended by the current best science. The agency claims there is no impact of this lack of security based on the current best science. It is not clear how there can be a huge increase in the number of motorized routes in the South Plateau Project Area, as well, and still maintain what is the current level of big game security.

The project's use of conditions based management is a violation of NEPA, NFMA, the Clearwater Act, the APA and the ESA based on the Federal Court ruling on a Forest Service logging project in the Tongass N.F.

Please see the following article by the American bar Association about the use of Condition-Based Management.

May 10, 2021

The U.S. Forest Service's Expanding Use of Condition-Based Management: Functional and Legal Problems

from Short-Circuiting the Project-Planning and Environmental Impact Statement Process

Andrew Cliburn, Paul Quackenbush, Madison Prokott, Jim Murphy, and Mason Overstreet

https://www.americanbar.org/groups/environment_energy_resources/publications/fr/20210510-the-us-forest-services-expanding-use-of-condition-based-management/

Condition-based management (CBM) is a management approach that the U.S. Forest Service has increasingly used to authorize timber harvests purportedly to increase flexibility, discretion, and efficiency in project planning, analysis, and implementation. The agency believes it needs this flexible approach because sometimes conditions on the ground can change more quickly than decisions can be implemented. In practice, however, CBM operates to circumvent the National Environmental Policy Act (NEPA) review framework by postponing site-specific analysis until the Forest Service implements the project, which effectively excludes the public from site-specific decisions, reduces transparency, and removes incentives for the agency to avoid harming localized resources. The practice should be curtailed by the Biden administration

NEPA requires federal agencies including the Forest Service to provide the public with "notice and an

opportunity to be heard" in the analysis of "specific area[s] in which logging will take place and the harvesting methods to be used." Ohio Forestry Ass'n v. Sierra Club, 523 U.S. 726, 729–30 (1998). Site-specific public involvement can significantly improve projects because the agency may be unaware of harmful impacts or resource concerns until the public flags them during the environmental analysis process. Nationally, the Forest Service drops about one out of every five acres it proposes for timber harvest based on information or concerns presented during the NEPA process, often due to public comments regarding site-specific information. Public Lands Advocacy Coalition, Comments on Proposed Rule, National Environmental Policy Act (NEPA) Compliance (June 13, 2019) (analyzing 68 projects that relied on environmental assessments).

The Forest Service appears to be abandoning the site-specific analysis model in favor of CBM. CBM projects use an overarching set of "goal variables"—predetermined management criteria that guide implementation—that Forest Service staff apply to on-the-ground natural resource "conditions" encountered during the course of project implementation, a period that can span years or even decades: essentially, when the Forest Service finds X resource condition on the ground, it applies Y timber harvest prescription. However, basic information regarding the project's details—such as unit location, timing, roadbuilding, harvesting methods, and site-specific environmental effects—is not provided at the time the Forest Service conducts its NEPA environmental

review (when the public can weigh in), nor when it gives its final approval to a project (when the public can seek administrative review). Instead, site-level disclosures are made after NEPA environmental and administrative review is complete, depriving the public of opportunities to comment and influence the decision based on localized conditions.

While CBM is not a new management tool, the Forest Service has employed it for over a decade and it was used sparingly during the Obama administration. However, its use accelerated during the Trump administration and shows no sign of slowing. To date, dozens of Forest Service projects across the country have used CBM. See, e.g., Red Pine Thinning Project, Ottawa National Forest; Medicine Bow Landscape Vegetation Analysis, Medicine Bow-Routt National Forest; Sage Hen Integrated Restoration Project, Boise National Forest.

As the Forest Service's use of CBM continues, questions remain about its legality. Public-lands advocates argue that CBM violates NEPA's mandate that agencies take a hard look at the consequences of their actions before a project commences. This "look before you leap" approach was the primary purpose of NEPA and remains the statute's greatest strength. NEPA works by requiring an agency to consider alternatives and publicly vet its analysis whenever its proposal may have "significant" environmental consequences, 42 U.S.C. § 4332(2)(C), or implicates "unresolved conflicts" about how the agency should best accomplish its objective. Id. at § 4332(2)(E).

However, CBM allows the Forest Service to circumvent the effects analysis process when exercising discretion about where and how to log decisions that often may have "significant" environmental consequences.

Only two federal cases have addressed CBM's legality. In WildEarth Guardians v. Connor, 920 F.3d 1245 (10th Cir. 2019), the Tenth Circuit approved a CBM approach for a logging project in southern Colorado in Canada lynx habitat. The environmental assessment utilized CBM and analyzed three different alternatives, one of which was a worst-case scenario. For the worst-case scenario, the Forest Service assumed that the entire lynx habitat in the project area would be clear-cut. The Forest Service "took the conservative approach" because it "did not know precisely" where it would log in the lynx habitat areas. WildEarth Guardians, 920 F.3d at 1255. Based on this conservative approach, coupled with a comprehensive, region-wide lynx management agreement and its associated environmental impact statement, the court agreed with the Forest Service that its future site-specific choices were "not material" to the effects on lynx—i.e., that no matter where logging occurred, "there would not be a negative effect on the lynx." Id. at 1258–59.

However, a second case addressing CBM found that site-specific analysis was needed to satisfy NEPA's "hard-look" standard. In Southeast Alaska Conservation Council v. U.S. Forest Service, 443 F. Supp. 3d 995 (D. Ak. 2020), the court held that the Forest Service's Prince of Wales Landscape Level Analysis Project—a 15-year

logging project on Prince of Wales Island in the Tongass National Forest—violated NEPA. The project would have authorized the logging of more than 40,000 acres, including nearly 24,000 acres of old growth, along with 643 miles of new and temporary road construction, but it "d[id] not include a determination—or even an estimate —of when and where the harvest activities or road construction . . . w[ould] actually occur." Id. at 1009. The court found that this analysis was not "specific enough" without information about harvest locations, methods, and localized impacts. Id. at 1009–10. The court further held that a worst-case analysis could not save the project, because site-specific differences were consequential. Id. at 1013.

The Forest Service's widespread use of CBM also creates compliance challenges under the Endangered Species Act (ESA). Section 7(a)(2) of the ESA requires federal agencies to consult with the Fish and Wildlife Service and/or National Marine Fisheries Service whenever a proposed action "may affect" listed species or destroy or adversely modify its critical habitat to ensure that the action is "not likely to jeopardize" these species. 16 U.S.C. § 1536. CBM conflicts with that statutory requirement because it does not allow agencies to properly determine whether an action "may affect" or is "likely to jeopardize" a listed species when the consulting agencies do not know the specifics of when or where the action will be implemented, or what the site-specific impacts of the action may be.

For some projects, the Forest Service has tried to avoid this tension by conducting section 7 consultation prior to each phase of a CBM project, but this approach has run headlong into the general rule against segmenting project consultation duties under the ESA. See, e.g., Conner v. Burford, 848 F.2d 1441, 1457 (9th Cir. 1988). With few exceptions, section 7 consultation must cover the overall effects of the entire project at the initial stage before the project can commence. Thus, regardless of whether agencies choose to consult up front or to consult in stages, the Forest Service is likely to face significant legal hurdles when its CBM project "may affect" listed species.

CBM is not only legally dubious, but also unnecessary. The Forest Service already has NEPA-compliant methods to deal with situations that require a nimble response to the needs of a dynamic landscape. In these cases, the Forest Service can complete a single "programmatic" analysis to which future site-specific decisions will be tiered. This programmatic approach allows the Forest Service to speed the consideration and implementation of site-specific, step-down proposals. Unlike CBM, this approach allows for public review of site-specific decision-making and administrative review of those decisions.

Surveying the regulatory horizon, the future of CBM in the Forest Service system is uncertain. The national forests face a host of complex challenges including climate-related crises, insect and forest pestilence, protecting and restoring biodiversity, and wildfire

management. These challenges are made worse by budget and staff restrictions. Without adequate funding, the Forest Service must rely on imperfect tools like commercial logging, which can cause more harm than good in the wrong places.

But this is not the time to shortchange the most consequential decisions that the agency must make: determining where and how to act. During the final two years of the Trump administration, the Forest Service attempted to explicitly codify CBM provisions in revisions to its NEPA regulations, although those provisions were dropped from the final rule. Simultaneously, other federal land-management agencies like the Bureau of Land Management have started to use CBM analogues in their NEPA-related planning documents. Although it is still early, the Biden administration's newly appointed Council on Environmental Quality team has yet to weigh in on CBM. If use of CBM continues in a manner that undermines public participation and NEPA's "hard look" standard, some of our riskiest land management projects may not receive proper environmental oversight.

his is a violation of NEPA to not identifying specific areas where logging would have occurred and where roads and how many roads will be built.

Please see the article below about a similar timber sale in Alaska which a federal district court ruled was illegal.

Federal court blocks timber sale in Alaska's Tongass National Forest

https://www.adn.com/alaska-news/2020/06/25/federal-court-blocks-timber-sale-in- alaskas-tongass-national-forest/

JUNEAU — A federal judge has blocked what would have been the largest timber sale in Alaska's Tongass National Forest in decades.

Wednesday's ruling ends the U.S. Forest Service's plan to open 37.5 square miles of old- growth forest on Prince of Wales Island to commercial logging, CoastAlaska reported.

The ruling by Judge Sharon L. Gleason also stops road construction for the planned 15- year project.

Conservationists had already successfully blocked the federal government's attempt to clear large amounts of timber for sale without identifying specific areas where logging would have occurred.

Gleason allowed the forest service to argue in favor of correcting deficiencies in its re- view and moving forward without throwing out the entire project, but ultimately ruled against the agency.

Gleason's ruling said the economic harm of invalidating the timber sales did not outweigh "the seriousness of the errors" in the agency's handling of the project.

The method used in the Prince of Wales Landscape Level Analysis was the first time the agency used it for environmental review on an Alaska timber sale.

The forest service, which can appeal the decision, did not return calls seeking comment.

Gleason's decision affects the Prince of Wales Island project and the Central Tongass Project near Petersburg and Wrangell.

The ruling triggers a new environmental review under the National Environmental Policy Act, said Meredith Trainor, executive director of the Southeast Alaska Conservation Council.

The ruling in the lawsuit brought by the council includes a requirement for public input on specific areas proposed for logging, Trainor said.

Tessa Axelson, executive director of the Alaska Forest Association, said in a statement that the ruling "threatens the viability of Southeast Alaska's timber industry."

The project is in violation of NEPA, NFMA, the Clean Water Act, the APA and the ESA.

The Forest Service did not respond to our comments in violation of NEPA.

Because the project did not tell the public where, when and how the project will be implemented the project is in

violation of NEPA, NFMA, the CleanWater Act and the ESA.

The previous Forest Plan required 30% of the area be old growth but there is only 2% old growth in the project area. But not the Forest Service wants the public to trust them that they are complying with all rule, laws and regulations even though they are violating NEPA.

Remedy

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

LYNX

We wrote in our comments:

Please disclose whether you have conducted surveys in the Project area for this Project for whitebark pine, grizzly bears, wolverines, pine martins, monarch butterflies, whitebark pine, northern goshawk and lynx.

Please disclose the last time the Project area was surveyed for whitebark pine, grizzly bears, wolverines, monarch butterflies, whitebark pine, pine martins, northern goshawk, and lynx.

Please disclose how often the Project area has been surveyed for whitebark pine, grizzly bears, wolverines, monarch butterflies, whitebark pine, pine martins, northern goshawks, and lynx.

Would the habitat be better for whitebark pine, grizzly bears, monarch butterflies, whitebark pine, wolverines, pine martins, northern goshawks, and lynx if roads were removed in the Project area?

Please provide us with the full BA for the whitebark pine, wolverines, monarch butterflies, whitebark pine, grizzly bears, pine martins, northern goshawks, and lynx.

The U.S. District Court just ruled that the Forest Service has to formally consult with the U.S. FWS on the Northern Rockies Lynx Management Direction effect on lynx and lynx critical habitat. Have you done this? If not please do so.

THE AGENCIES MUST REINITIATE

CONSULTATION ON THE NORTHERN ROCKIES LYNX MANAGEMENT DIRECTION.

The Northern Rockies Lynx Management Direction is inadequate to ensure conservation and recovery of lynx. The amendments fail to use the best available science on necessary lynx habitat elements, including but not limited to, failing to include standards that protect key winter habitat.

The Endangered Species Act requires the FS to insure that the GRLA project is not likely to result in the

destruction or adverse modification of critical habitat. 16 U.S.C. §1536(a) (2). Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for lynx. 74 Fed. Reg. 8644. The Northern Rockies Lynx Management Direction (NRLMD) as applied in the project violates the ESA by failing to use the best available science to insure no adverse

modification of critical habitat. The NRLMD carves out exemptions from Veg Standards

S1, S2, S5, and S6. In particular, fuel treatment projects may occur in the WUI even though they will not meet standards Veg S1, S2, S5, or S6, provided they do not occur on more than 6% of lynx habitat on each Nation- al Forest. Allowing the agency to destroy or adversely modify any lynx critical habitat has the potential to

appreciably reduce the conservation value of such habitat. The agency cannot simply set a cap at 6% forest-wide without looking at the individual characteristics of each LAU to determine whether the project has the potential to appreciably reduce the conservation value. The ESA requires the use of the best available science at the site-specific level. It does not allow the agencies to make a gross determination that al- lowing lynx critical habitat to be destroyed

fo- rest-wide while not appreciably reduce the conservation value.

The FS violated NEPA by applying the above-mentioned exception without analyz- ing the impacts to lynx in the individual LAUs. The Project violates the NFMA by failing to in- sure the viability of lynx. Ac- cording to the 1982 NFMA regulations, fish and wildlife must be managed to maintain vi- able populations of Canada lynx

in the planning area. 36 C.F.R. 219.19. The FS has not shown that lynx will be well distributed in the planning area. The FS has not addressed how the project's adverse modification of denning and foraging habitat will impact distribution. This is important because the agency readily admits that the LAUs already contain a "relatively large percentage of unsuitable habitat."

The national forests subject to this new direction will provide habitat to maintain a viable

population of lynx in the northern Rockies by maintaining the current distribution of occupied lynx habitat, and maintaining or enhancing the quality of that habitat.

The FS cannot insure species viability here without addressing the impacts to the already low amount of suitable habitat. By cutting in denning and foraging

habitat, the agency will not be "maintaining or enhancing the quality of the habitat."

This project is in Canada lynx habitat. In order to meet the requirements of the FS/USFWS Conservation Agreement, the FS agreed to insure that all project activities are consistent with the Lynx Conservation Assessment and Strategy (LCAS) and the requirements of protecting lynx critical habitat. The FS did not do so with its project analysis. This project will adversely affect lynx critical habitat in violation of the Endangered Species Act. The BA/BE needs to be rewritten to reflect

this information to determine if this project will adversely modify proposed critical habitat for lynx and if so conference with USFWS.

The Custer Gallatin National Forest (HLCNF) is home to the Canada lynx, listed as a Threatened species under the

Endangered Species Act (ESA). In December 1999, the Forest Service and Bureau of Land Management completed their "Biological Assessment Of The Effects Of National Forest Land And Resource Management Plans And Bureau Of Land Management Land Use Plans On Canada Lynx" (Programmatic Lynx BA). The Programmatic Lynx BA concluded that the current programmatic land management plans "may affect, and are likely to adversely affect, the subject population of Canada lynx."

The Lynx BA team recommended amending or revising Forest Plans to incorporate conservation measures that would reduce or eliminate the identified adverse effects on lynx. The Programmatic Lynx BA's determination means that Forest Plan implementation is a "taking" of lynx, and makes Section 7 formal consultation on the Custer

Gallatin Forest Plan mandatory, before actions such as the proposed project are approved.

Continued implementation of the Forest Plan constitutes a "taking" of the lynx. Such taking can only be authorized with an incidental take statement, issued as part of a Biological Opinion (B.O.) during of Section 7 consultation. The Custer Gallatin National Forest must incorporate terms and conditions from a programmatic B.O. into a Forest Plan amendment or revision before projects affecting lynx habitat, such as this one, can be authorized.

The Programmatic Lynx BA's "likely to adversely affect" conclusion was based upon the following rationale. Plans within the Northern Rockies:

• Generally direct an aggressive fire suppression strategy within developmental land allocations. ...this strategy may

be contributing to a risk of adversely affecting the lynx by limiting the availability of foraging habitat within these areas.

• Allow levels of human access via forest roads that may pre- sent a risk of incidental trapping or shooting of lynx or access by other competing carnivores. The risk of road-related adverse effects is primarily a winter season issue.

• Are weak in providing guidance for new or existing recreation developments. There- fore, these activities may contribute to a risk of ad- verse effects to lynx.

• Allow both mechanized and non-mechanized recreation that may contribute to a risk of adverse effects to lynx. The potential effects occur by allowing compacted snow trails and plowed roads which may facilitate the movements of lynx competitors and predators.

• Provide weak direction for maintaining habitat connectivity within naturally or artificially fragmented landscapes. Plans within all geographic areas lack direction for coordinating construction of highways and other movement barriers with other responsible agencies. These factors may be contributing to a risk of adverse effects to lynx.

• Are weak in providing direction for coordinating management activities with adjacent landowners and other agencies to assure consistent management of lynx habitat across the landscape. This may contribute to a risk of adverse effects to lynx.

• Fail to provide direction for monitoring of lynx, snowshoe hares, and their habitats. While failure to monitor does not directly result in adverse effects, it makes the detection and assessment of adverse effects

from other management activities difficult or impossible to attain.

• Forest management has resulted in a reduction of the area in which natural ecological processes were historically allowed to operate, thereby increasing the area potentially affected by known risk factors to lynx. The Plans have continued this trend. The Plans have also continued the process of fragmenting habitat and reducing its quality and quantity. Consequently, plans may risk adversely affect- ing lynx by potentially contributing to a reduction in the geographic range of the species.

• The BA team recommends amending or revising the Plans to incorporate conservation measures that would reduce or eliminate the identified adverse effects to lynx. The programmatic conservation measures listed in the

Canada Lynx Con- servation Assessment and Strategy (LCAS) should be considered in this regard, once finalized. (Programmatic Lynx BA, at 4.)

The Programmatic Lynx BA notes that the LCAS identifies the following risk fac-tors to lynx in this geographic area:

- ***Timber harvest and pre-commercial thinning that reduce denning or foraging habitat or converts habitat to less desirable tree species***

The Forest Service responded in the Wildlife report:

According to the most current understanding of lynx ecology and behavior, timber harvest has the potential to affect lynx productivity through impacts on foraging habitat (USDA Forest Service 2007a pg. 2; Ruediger et al. 2000).

In northwestern Montana, Holbrook and others (2017a) found that lynx use mature stands in proportion to their availability and that mature spruce-fir forests are used more than any other structure stage or species. The value of the mature forest component as foraging habitat for

lynx (within occupied home ranges in this study) is likely highly variable and dependent on existing horizontal cover values at the local scale. Within their home ranges, female and male lynx increasingly used advanced regeneration forest structures as they became more available (up to a maximum availability of 40%). Advanced regeneration was found to provide the greatest snowshoe hare abundance, while mature forest is where lynx appear to hunt most efficiently. Intermediate snow depths and the distribution of snowshoe hares were the strongest predictors of where lynx selected their home ranges.

Lynx were found to exhibit decreasing use of stand initiation structures (up to a maximum availability of 25%). The definition of stand initiation structure used in Holbrook and others (2017a) includes very young stands with very few trees and open canopies resulting from recent disturbances. SI structures as defined in this paper and the SI structural stage defined in the NRLMD are not comparable; stands in the SI structural stage as defined in the NRLMD (and that apply to standard VEG S1) approach 20-25 years of age before moving to advanced regen structures that provide snowshoe hare habitat during winter. The stand initiation structure defined by this publication is therefore a subset of the SI structural conditions used in NRLMD standard VEG S1 to establish the 30% SI condition threshold.

Holbrook and others (2017b) examined habitat relationships of snowshoe hare in a mixed conifer

landscape in northwestern Montana. The authors found that occupancy and intensity of use by snowshoe hares were positively related to horizontal cover. This study also indicated that dense horizontal cover within multistoried forests with a substantial component of medium-sized trees (i.e., 12.7–25.4 cm) produced the highest use by snowshoe hares and that lodgepole pine and spruce-fir are indicators of snowshoe hare habitat in the northern Rockies. This study also found that disturbance (vegetative treatment or burning) in multistoried stands with high horizontal cover may have negative short term impacts on snowshoe hare, but would ultimately benefit hares and hare habitat in the future (20-50 years) by allowing for development of horizontal cover.

Squires and others (2010) found that lynx habitat selection varied by season in northwest Montana. They found that multistory structure was particularly important in the winter and that lynx broadened their use of habitat during the summer to include early successional stands with high horizontal cover (Squires et al. 2010). Squires and others (2010) indicated that retention of a habitat mosaic of abundant and spatially well-distributed patches of mature, multistory forests and younger forest stands is needed to support lynx and their preferred prey.

Recent scientific findings undermine the Forest Plan/ NRLMD direction for management of lynx habitat. This

creates a scientific controversy the FS fails to resolve, and in fact it essentially ignores it.

For one, Kosterman, 2014 found that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inched dbh. Young regenerating forest should occur only on 10-15% of a female lynx home range, i.e. 10-15% of an LAU. This renders inadequate the agency's assumption in the Forest Plan/NRLMD that 30% of lynx habitat can be open, and that no specific amount of mature forest needs to be conserved. Kosterman, 2014 demonstrates that Forest Plan/NRLMD standards are not adequate for lynx viability and recovery.

Also, the Forest Plan essentially assumes that persistent effects of vegetation manipulations other than regeneration logging and some intermediate treatments are essentially nil. However, Holbrook, et al., 2018 "used univariate analyses and hurdle regression models to evaluate the spatio-temporal factors influencing lynx use of treatments." Their analyses "indicated ...there was a consistent cost in that lynx use was low up to ~10 years after all silvicultural actions." (Emphasis added.) From their conclusions:

First, we demonstrated that lynx clearly use silviculture treatments, but there is a ~10 year cost of implementing any treatment (thinning, selection cut, or regeneration cut) in terms of resource use by Canada lynx. This temporal cost is associated with lynx preferring advanced regenerating and mature structural stages (Squires et al.,

2010; Holbrook et al., 2017a) and is consistent with previous work demonstrating a negative effect of precommercial thinning on snowshoe hare densities for ~10 years (Homyack et al., 2007). Second, if a treatment is implemented, Canada lynx used thinnings at a faster rate post- treatment (e.g.,~20 years posttreatment to reach 50% lynx use) than either selection or regeneration cuts (e.g., ~34–40 years post-treatment to reach 50% lynx use). Lynx appear to use regeneration and selection cuts similarly over time suggesting the difference in vegetation impact between these treatments made little difference concerning the potential impacts to lynx (Fig. 4c). Third, Canada lynx tend to avoid silvicultural treatments when a preferred structural stage (e.g., mature, multi-storied forest or advanced regeneration) is abundant in the surrounding landscape, which highlights the importance of considering landscape-level composition as well as recovery time. For instance, in an area with low amounts of mature forest in the neighborhood, lynx use of recovering silvicultural treatments would be higher versus treatments surrounded by an abundance of mature forest (e.g., Fig. 3b). This scenario captures the importance of post-treatment recovery for Canada lynx when the landscape context is generally composed of lower quality habitat. Overall, these three items emphasize that both the spatial arrangement and composition as well as recovery time are central to balancing silvicultural actions and Canada lynx conservation.

So Holbrook et al., 2018 and Holbrook 2019 (attached) fully contradict Forest Plan assumptions that clearcuts/

regeneration can be considered useful lynx habitat as early as 20 years post-logging.

Results of a study by Vanbianchi et al., 2017 also conflict with Forest Plan/NRLMD assumptions: “Lynx used burned areas as early as 1 year postfire, which is much earlier than the 2–4 decades postfire previously thought for this predator.” The NRLMD erroneously assumes clearcutting/ regeneration logging have basically the same temporal effects as stand-replacing fire as far as lynx re-occupancy.

Kosterman, 2014, Vanbianchi et al., 2017 and Holbrook, et al., 2018, Holbrook 2019 demonstrate that Forest Plan direction is not adequate for lynx viability and recovery, as the FS assumes. Holbrook 2019 such all lynx habitat must be surveyed. You have not done this.

REMEDY: Withdraw the draft DN and FONSA and write a supplement EA or an EIS that fully complies with the law and analyzes the cumulative effect of clearcutting on grizzly bears, lynx, whitebark pine, wolverine, monarch butterflies, goshawks, and all native fish and wildlife in the Hebgen Lake Ranger District or choose the No Action alternative. Also the revised Forest Plan must be amended to incorporate habitat protections standards for lynx.

Grizzlies

We wrote in out comments:

How many road closure violations have there been in the last 5 years in the Hebgen 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 onNational 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-roaded and closed-roaded 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 is 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/km^2 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 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 Plannever 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 baselinewhen 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).

Page 9 and 5 of the Revised EA states: “The exact locations of temporary roads are not yet known, but placement would be consistent with Design Features (Appendix B) and subject to Resource Review (Appendix C).”

This is a violation of NEPA, NFMA, the APA and the ESA. If you want to build temporary roads, you need to have a map showing the public where and how much temporary roads will be built. An EIS needs to be written with an analysis of the effects of the new temporary roads and if they roads will be temporary or will people keep using them after they closed.

Your economic analysis also needs to be redone and the cost of the temporary roads needs to be shown.

Christensen et al (1993) states: “Any motorized vehicle use on roads will reduce habitat effectiveness. Recognize and deal with all forms of motorized vehicles and all uses, including administrative use.” Please disclose this to the public and stop representing that roads closed to the public should not be included in habitat effectiveness calculations. The facts that (a) you are constructing or reconstructing temporary roads for this project, (b) you have problems with recurring illegal use, means that your conclusion that this Project will have no effect on open road density or habitat effectiveness is implausible to the point of being disingenuous. You cannot exclude these roads simply because you say they are closed to the public. Every road receiving motorized use must be included in the HE calculation. You must consider all of this road use in order to take a hard look that is fully and fairly informed regarding habitat effectiveness. In the very least you must add in all “non-system” roads, i.e. illegal roads, as well as recurring illegal road use (violations) in your ORD calculations.

Are all of the roads that the Travel Plans call for being closed, actually closed on the ground? Are the road closure barriers effective? If not all of your analysis based on the Travel Plan is not accurate.

The Forest Service responded on page 43-44 of the wildlife report:

Temporary project impacts would have localized effects on individual grizzly bears. Temporary reductions in secure habitat and temporary increases in TMARD may result in

displacement of grizzly bears from areas where road use is occurring, and bears may retreat to less disturbed areas across the subunits during project implementation. While bears may move in response to proposed treatments (and associated temporary reductions in secure habitat and increases in TMARD), grizzly bears operate at a landscape level in the GYE. Given the temporary nature of silvicultural projects, bears can accommodate this at the project level, even at higher densities, by adjusting their spatial and/or temporal use patterns within their home range (van Manen 2016, personnel communication) and within the larger Subunits. Grizzly bear space use is very fluid and dynamic; there is a high degree of overlap among home ranges. The dietary plasticity of the grizzly bear allows it to occupy diverse habitats over large spatial scales and to cope with perturbations in the abundance of food (Gunther et al. 2014 pg. 69). Research suggests that in response to changes in food availability grizzly bears will shift their use to other available forage items within their home range (Costello et al. 2014). Suitable alternate habitats are widely available in the immediate vicinity of treatment units located in the Madison #2, Henry's Lake #2, and Plateau #1

Subunits. Untreated areas outside of mapped treatment units as well as areas that would not be treated inside boundaries of proposed units (e.g. dropped due to the 40-acre maximum size of clearcuts or to provide at least 500 feet between regeneration harvested stands; see Design features) would be available for foraging during implementation. Created openings, thinned stands, and untreated areas would contribute to a mosaic of habitat conditions and potential food resources for grizzly bears post- implementation.

In the Henry's Lake #2 Subunit, the area immediately adjacent to private land and other values at risk would be treated more intensively to reduce the risk of wildfire in these areas and provide for defensible space and firefighter and public safety. Bears moving in response to these activities would have to move south or north to higher elevation areas in the Henry's Mountain Range. As heavy bear use in that area generally occurs in the early spring/summer and late fall, activities would potentially result in avoidance for a relatively short period of time, as there would be no operations during the winter season and operations during spring break-up and late fall are also unlikely given ground conditions during these time periods. Winter harvest would not occur in the SPLAT Project.

Because increased access has been shown to increase mortality risk to grizzly bears, the temporary reduction in secure habitat and temporary increase in TMARD in the three affected Subunits through implementation of

vegetative treatments indicates that the project has the potential to increase mortality risk to individual grizzly bears. Increased human presence in the project area increases the potential for conflicts between humans and grizzly bears. Under the Proposed Action, treatment activities are fairly widespread in the affected Subunits. While this increase in human activity may increase the likelihood of chance encounters or negative interactions, design features would be enforced to reduce this potential. Use of project roads would be restricted to administrative access; these temporary project routes would be effectively closed to the general public during implementation and decommissioned once they are no longer used for implementation. In addition, the Custer Gallatin food storage order would be implemented and enforced for all activities associated with this project (applies to agency personnel, operators, contractors, etc.), so the risk of conflicts would be minimized. In addition, disturbance from project activities would move bears away from the area, so the risk of a surprise encounter would likely be reduced in areas where implementation is actively occurring.

Ongoing recreational use of decommissioned temporary project roads and/or skid trails, especially by ungulate hunters, could have a longer-term effect on increased mortality risk for grizzly bears. This use would be non-motorized. Because ungulate hunting has been found to negatively affect grizzly bear survival (Schwartz et al. 2010), this longer-term increased access for hunters may result in more negative encounters with grizzly bears over

time. The proposed treatment activities are not expected to appreciably impact human use in the area during the non-denning season. While motorized use on open routes is relatively high during the non-denning season, other uses, including hunting, fishing, and hiking are less popular than other areas on the District. Proposed activities that reduce the density of vegetation may result in increased over-the-snow access in some areas. While the affected areas are open to this use, vegetative conditions have largely precluded snowmobiling activity in these areas. As bears would be denned up during the vast majority of the snowmobiling season and there have been no records of litter abandonment or den abandonment by grizzly bears in the lower-48 States due to snowmobile activity (USDI 2021b), disturbance associated with this change is expected to be negligible.

Scientist disagree. For example, please see the attached paper by Newmark et al. 2023 titled, "Enhanced regional connectivity between western North American national parks will increase persistence of mammal species diversity"

The found on page 1that the South Plateau project area in in an important corridor that species like grizzly bears need to survive over the long run.

Protected areas are the cornerstone of biodiversity conservation worldwide. Yet the capacity of most protected areas to conserve biodiversity over the long-term is under threat from many factors including habitat loss and fragmentation, climate change, and over-exploitation of

wildlife populations[1–6]. Of these threats, habitat loss and fragmentation on lands adjacent to protected areas are the most immediate and overarching threats facing most national parks and related reserves (IUCN protected area categories I & II) in western North America. As a result, most parks and related reserves in western North America are becoming increasingly spatially and functionally isolated in a matrix of human-altered habitats[1,3,7]. This is particularly problematic because few parks and related reserves worldwide are large enough to conserve intact plant and animal communities[8–11] and many large-scale ecological processes, such as mammal migrations and disturbance regimes[12–16]. Consequently, there is an increasing effort worldwide to promote and establish protected area networks − networks of reserves interconnected by protected linkages[17,18].

Dr. David Mattson stated in his attached declaration that, "The best available science shows that grizzly bears in the contiguous United States are not genetically or evolutionarily viable."

Mattson also stated: "Managing for grizzly bear habitat security using a static 1998 baseline defined solely by distance from roads and developed areas within the Primary Conservation Area (PCA) is a bureaucratic artifact."

Mattson concluded:

14.1. It is my expert opinion that the US Forest Service analysis of the SPLAT project is not a valid

basis for supporting its conclusions regarding how and to what extent individual grizzly bears, as wellas the grizzly bear population in the contiguous U.S., will likely be affected because: (1) the grizzly bear population is not yet genetically and evolutionarily viable, despite Recovery Criteria having been met within the Greater Yellowstone PCA; (2) the 1998 baseline used to assess levels of habitat security within the PCA is premised on invalid assumptions; (3) the methods used to calculate habitat security produce inflated – if not altogether meaningless – estimates of true habitat security for grizzly bears; (4) the assessment of connectivity issues related to the project and achievement of population viability was arbitrary and capricious; and (5) the analysis of impacts on grizzly bear habitat quality and security within project boundaries was deficient for numerous reasons.

14.2. Given the facts of this declaration, it is my expert opinion that the following conclusion reported in the SPLAT Wildlife Report and EA understates the magnitude and duration of more local impacts on grizzly bears: "...secure habitat would be temporarily reduced below the already degraded secure habitat baseline in the Madison #2 and Henry's Lake #2 Subunits, the Proposed Action may affect, and is likely to adversely affect the grizzly bear."

14.3. Given the facts of this declaration, it is my expert opinion that the following conclusion reported in the SPLAT Wildlife Report as a basis for the Finding of No Significant Impact is not valid, defensible, or precautionary: "The effects described...do not represent a significant adverse effect on this species because they would largely be temporary, would provide for diverse food resources and forest structure in the long term, and would meet all Forest Plan standards related to grizzly bear and their habitat."

15. As currently proposed, it is my expert opinion that the South Plateau Landscape Area Treatment Project will not only harm numerous individual grizzly bears, but also adversely affect recovery and ultimate long-term viability of grizzly bears, not only in the Greater Yellowstone Ecosystem, but also the contiguous United States.

The Forest Service is also not counting logging roads as open. The 1998 baseline is old and based on outdated science in violation of NEPA, NFMA, the APA and the ESA as Dr. Mattson points out

The project will have 3 mile per square mile of roads which causes grizzlies to leave the area.

Bears leave if there is more than one mile per square mile. The South Plateau landscape Area Treatment Project is in violation of NEPA, NFMA, the APA, and the ESA. The Revised Forest Plan's direction for grizzly bears is in violation of NEPA because it is so compacted that the public can not understand it. The Revised Forest Plan's

direction for grizzly bears also is in violation of the ESA because it does not protect grizzly bear habitat. The Revised Forest Plan also needs to be amended to count open logging roads as open.

The Forest Plan Direction allows can have one project every 5 years in each subunit.

Three subunits all come together is the South Plateau project. Each unit can have one project every 5 years. The South Plateau project is estimated to last 15 years. So unit subunit can have 3 projects every 5 years. So 9 projects in 15 years and the Forest Service illegally claims that is will have no significant impacts on grizzlies. This is a violation of NEPA and another reason why an EIS is required.

REMEDY

Choose the No Action alternative and amend the revised Forest Plan to include to have a direction for grizzly bears that protects grizzly bear habitat. The other option is to withdraw the Draft Decision and write an EIS and amend the Revised Forest Plan to fully comply with the law.

Whitebark Pine

We wrote in our comments:

W. Please disclose how often the Project area has been surveyed for wolverines, pine martins, northern goshawks, monarch but- terflies, grizzly bears, whitebark pine and lynx.

X. Is it impossible for a wolverines, pine martins, monarch but- terflies, northern goshawks, grizzly bears, whitebark pine and lynx to inhabit the Project area?

Y. Would the habitat be better for wolverines, monarch butter- flies, pine martins, northern goshawks, grizzly bears, whitebark pine and lynx if roads were removed in the Project area?

Z. What is the U.S. FWS position on the impacts of this Project on wolverines, pine martins, monarch butterflyies, northern goshawks, grizzly bears, whitebark pine and lynx? Have you conducted ESA consultation?

AA. Please provide us with the full BA for the wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears, whitebark pine and lynx.

DD. Why are you trying to exclude stand replacement fires when these fires help aspen and whitebark pine?

EE. Please disclose what is the best available science for restoration of whitebark pine.

Please disclose the last time the Project area was surveyed for whitebark pine, grizzly bears, wolverines, monarch butterflies, whitebark pine, pine martins, northern goshawk, and lynx.

Please disclose how often the Project area has been surveyed for whitebark pine, grizzly bears, wolverines, monarch butterflies, whitebark pine, pine martins, northern goshawks, and lynx.

Would the habitat be better for whitebark pine, grizzly bears, monarch butterflies, whitebark pine, wolverines, pine martins, northern goshawks, and lynx if roads were removed in the Project area?

Page 29 of the Draft Revised EA states: The proposed project incorporates at-risk plant design features that would limit negative effects to at-risk plant populations, consistent with Plan standard FW-STD-PRISK 01. Three at-risk plant species would have the potential to be affected by project activities, one of which is whitebark pine; whitebark pine is the only known at-risk plant that occurs in the project area. The botanist would survey potential treatment units before treatments are applied and if new populations of at- risk plants are found, then specific protection measures would be implemented to protect population persistence on the landscape. The proposed project is not likely to jeopardize whitebark pine because few mature trees exist in treatment units and these would be retained per project Design Features.

Some immature trees may be lost, but this would not result in a trend toward federal listing. The Forest Botanist would evaluate and sign a resource review checklist at every new phase or sale of the project, and add additional mitigation measures if warranted by changing conditions.

Not all ecosystems or all Rocky Mountain landscapes have experienced the impacts of fire exclusion. In some wilderness areas, where in recent decades natural fires have been allowed to burn, there have not been major shifts in vegetation composition and structure (Keane et al. 2002). In some alpine ecosystems, fire was never an important ecological factor. In some upper subalpine ecosystems, fires were important, but their rate of occurrence was too low to have been significantly altered

by the relatively short period of fire suppression (Keane et al. 2002).

For example, the last 70 to 80 years of fire suppression have not had much influence on subalpine landscapes with fire intervals of 200 to several hundred years (Romme and Despain).

Consequently, it is unlikely that fire exclusion has yet to significantly alter stand conditions or forest health within Rocky Mountain subalpine ecosystems.

Whitebark pine seedlings, saplings and mature trees, present in subalpine forests proposed for 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.

Montana is currently experiencing a mountain pine beetle epidemic. Mountain pine beetle prefer large, older whitebark pine, which are the major cone producers. In some areas the few remaining whitebark that show the potential for blister rust resistance are being attacked and

killed by mountain pine beetles, thus accelerating the loss of key mature cone- bearing trees.

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 white- bark 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. Please find Keane and Arno attached.

Planting of rust-resistant seedlings would likely not be sufficient to replace whitebark pine lost to fire activities.

What surveys have been conducted to determine presence and abundance of whitebark pine re-generation? From page 29 of the Draft Revised EA, it appears that you won't do surveys until after the decision is signed in violation of NEPA, NFMA and the APA. 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?

Does the Custer Gallatin N.F. have any forest plan biological assessment, biological opinion, incidental take statement, and management direction amendment for whitebark pine?

Please see the attached paper by Six et al 2021 Whitebark Genetics 2021. Six et at 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 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."

The project is not following the best available science and is not meeting the purpose and need. Since Whitebark pine are now proposed to be listed under the ESA, you must formally reconsult with the FWS on the impact of the project on whitebark pine. To do this the Forest Service will need to have a complete and recent survey of the entire project area for whitebark pine and consider planting whitebark pine as the best available science by Keene et al. states is the only way to get new whitebark pine to grow. The Forest Service is incorrect when it states that the project will have "No significant effects would result from this project or cumulatively with other activities on National Forest or adjacent lands that would affect at-risk plant species' ability to persist on the landscape."

Since you have done no surveys of whitebark pine what is the basis of the "No effect" statement?

Please formally consult with the FWS on the impact of the project on Whitebark pine.

Since whitebark pine are very slow growing trees and take years to mature, what scientific evidence to you have to back up the following statement on page 29? "Some immature trees may be lost, but this would not result in a trend toward federal listing."

The Forest Service responded:

The commenter's opinion is noted. The At-Risk Plants section of the Final EA and Botany Report speak to what surveys were conducted and their results. Effects to whitebark pine were analyzed within the Botany Report and are summarized in the At-Risk Plants section of the EA and in the BA submitted to the Fish and Wildlife Service. The Range-wide Restoration Strategy by Keane et al was meant to be a reference for prioritizing, designing and implementing whitebark restoration projects. The project does not include a restoration component and is

not a good candidate due to the paucity of whitebark pine in the area and has not been identified as a high priority area for restoration in the Adaptive Managment Plan for Whitebark Pine (GYCC 2015).

The only known at-risk plant occurrences within the South Plateau project boundary are of whitebark pine (Pinus albicaulis). Prior to 2021, plant surveys conducted in the project area were for sensitive species which included English sundew, dwarf purple monkeyflower, hiker's gentian and whitebark pine. From 2008 to 2012, 596 acres were surveyed in the project area for other projects.

Whitebark pine (Pinus albicaulis) occurs in the project area. The South Plateau project area is 39,909 acres, 36,098 acres of which is forested cover. Table 3 breaks down the forested acres into dominant species and shows that 91 percent of the forested cover in the project area is a lodgepole pine cover type. There are no whitebark pine cover types in the project area.

Project activities will likely affect individual whitebark pine trees. Fuels treatments are expected to result in the mortality of some whitebark pine should they be present, mostly at the seedling and sapling stage because they have little defense against burning. Smaller trees in the understory were the most common growth stage in the project area. Keane et. al. (2020) noted that there are cases of extensive whitebark pine mortality occurring in prescribed burns. Keane and Parsons (Keane and Parsons 2010b) also described a range of 18-88% whitebark pine mortality from prescribed burns in their study plots. While broadcast burns can pose risks, they

can also perform functions within the ecosystem that simply cutting competing vegetation does not (Keane et al. 2020)(Perkins 2015) and can have positive effects for regeneration and growth (Perkins 2015) (Retzlaff et al. 2018). Broadcast burning in the project area will generally take place at lower elevations where whitebark pine may be less prevalent. Whitebark pine is a species that covers a wide range and can exist in diverse habitats, and not surprisingly can show a range of responses to fire. Generally, sources agree that while fire can be a useful tool in the promotion of whitebark pine, it must be used judiciously with clear goals and careful evaluation of site conditions (Goheen and Sniezko 2007)(Keane et al. 2020). The overall effect of individual tree losses to the larger population should be small and negligible to the species as a whole. There are few whitebark pine trees at any growth stage within activity areas and treatments will only occur on a very small fraction of the roughly 40,000 acres present in the project area. Whitebark pine is known to exist in the project area outside of treatment areas, presumably in similar abundance. This presence in the undisturbed portion of the landscape would ensure the persistence of the species in the area. Most of the individual whitebark pine trees are smaller, immature trees in the understory and are present in scattered amounts. Without release from overstory shading, these individuals have little chance of maturing and contributing to the overall population dynamics of whitebark pine on the landscape in a meaningful way.

Mortality may also occur from harvest activities or road building. Harvest prescriptions do not target five-needled pines. Mature whitebark would be retained to promote species diversity but smaller trees are difficult to avoid and may be damaged during timber cutting. Because whitebark pine is a shade- intolerant species, one recommended method of promoting its growth is reducing competition from shade tolerant trees and creating forest openings to provide opportunities for regeneration. In mixed conifer stands where the whitebark pine component is greater than 25% the project treatment matrix (Appendix A) states that conifers near healthy whitebark pine will be cleared. These treatments may reduce competition and promote the health of individual whitebark pine trees. Release of whitebark pine following treatments to reduce competition is not ensured (Keane et al. 2012) and may depend on a variety of stand characteristics. Almost all trees sampled in a small study by Keane et al (2007) increased in diameter size after removal of competing vegetation but the degree to which this happened depended upon the age of the trees and the density of their associated stands. Retzlaf et. al. (2018) found that growth rates of existing whitebark pine were higher in stands that had been burned and thinned, especially in younger trees. Maher et al.(2018) showed some release after treatment in closed-canopy stands but mixed results in more open stands and no increases in recruitment overall. Some timber harvest prescriptions will result in openings which will then be available for seed caching. In order for whitebark pine to regenerate in

newly opened areas certain conditions must occur. Adequate seed crops are

necessary to ensure that not all seeds are eaten and some seeds survive to germinate. Cached whitebark pine seeds can take two or more growing seasons before they germinate and may be heavily dependent on the right moisture conditions for success (Tomback, Sund and Hoffmann 1992, Tomback et al. 2001, Keane et al. 2012) . Seeds that have been cached face an increased likelihood of predation as well as physical degradation the longer they remain in the landscape. The low frequency and largely immature stage whitebark in the project area means that such treatments are unlikely to result in meaningful increases in the abundance of whitebark pine across the project area. Additionally, only a small amount of habitat as modeled by the Whitebark Pine Ecosystem Foundation exists with the potential to support whitebark pine. This habitat is concentrated in the far southern tip of the project area and includes one thinning unit and two potential fuels units.

Natural regeneration is not ensured even when overstory competition is reduced and openings created (Keane and Parsons 2010a). It depends a great deal on the proximity and abundance of seed sources and the site's characteristics. Whitebark pine generally requires

masting "to achieve adequate recruitment and maintain resiliency to stochastic events" (USDI 2021[14]). Masting (regional synchrony of mass production of seeds) occurs when there is sufficient density and abundance of reproductive individuals within a population and allows recruitment to occur in spite of heavy seed predation (USDI 2021). Planting and direct seeding have shown a variety of success rates in the past (Gucker 2013)(Pansing and Tomback 2019). The reasons for this are not fully understood but are likely in part due to the harsh nature of the habitats that whitebark pine inhabits. The US Fish and Wildlife Service (Wyoming Ecological Services Field Office 2021) recommends the prioritization of large, burned areas that are free of competition for reintroductions, which is a standard silvicultural practice on the Custer Gallatin National Forest.
Research is ongoing for strategies to improve planting success (McCaughey, Scott and Izlar 2009, Asebrook, Lapp and Carolin 2010, Gelderman, Macdonald and Gould 2016). Planting and seeding of whitebark pine will not occur as a part of the treatments under this project.

Effects may also result from any activity that stresses trees making them more susceptible to attacks by mountain pine beetle or white pine blister rust. In the context of the SPLAT project, this would most likely be fire.

Mountain pine beetle (Dendroctonus ponderosae) (MPB) feeds in the inner bark of host trees, often girdling and killing the tree. Hosts include lodgepole pine and whitebark pine. The project area currently has 66%

(26,389 acres) of its area rated as high hazard for susceptibility to MPB, and another 7% (2,791 acres) rated as moderate. Without management, the proportion of stands having a high hazard would increase over time as smaller pines that are not currently MPB habitat grow larger than 6" dbh. The South Plateau project area is currently predicted to have a 93% probability of having a high-severity MPB outbreak during the next period of beneficial climate (usually a long-term drought period) (Egan et al., 2019[15]). At the landscape level, heterogeneity is thought to be more resistant and resilient to insect damage. Silvicultural treatments designed to create age, size, and species mosaics can increase landscape heterogeneity and disrupt the continuity of bark beetle food supply in time and space. Regeneration harvests promote landscape heterogeneity by creating new age classes and influencing species composition (Egan et al. 2014). The proposed treatments would reduce the hazard to mountain pine

[14] USDI Fish and Wildlife Service. 2021. Species status assessment report for the Whitebark Pine, Pinus albicaulis. December 2021. V.1.3. U.S. Fish and Wildlife Service, Wyoming Ecological Services Field Office. Cheyenne, Wyoming.

[15] Egan, J.M., J. Lestina and J. Kaiden. 2019. Likelihood of Severe Mountain Pine Beetle Outbreak and Management Options for South Plateau Project Area,

Custer Gallatin National Forest. Forest Health Protection Trip Report MFO-TR-19-10. Missoula.

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beetle at the stand-and landscape-scales. Reducing tree densities around whitebark pine may reduce MPB hazard. However, the majority of whitebark pine observed in the project area is smaller than 6" dbh and is not currently susceptible to MPB. If thinning and burning were to promote growth of existing whitebark pine through competitive release and regeneration by providing caching sites, then the reduction of MPB hazard in the area could be seen as a benefit to whitebark pine.

White pine blister rust is the primary factor threatening the existence of whitebark pine across its range (Federal Register, 2022[16]). Blister rust was noted during surveys but was not prevalent possibly because of the low density of whitebark pine across the project area. If conditions become cooler or moister, the fungus may spread and intensify. If climate change produces conditions that are warmer and drier, white pine blister rust may spread more slowly, but it is expected to be ever-present as there are no practical methods of eliminating it from the landscape. As implementation of treatments are not expected to lead to a net change in the amount of blister rust on the landscape, project activities would not contribute to additional

pressure from climate change on white pine blister rust prevalence.

In the SPLAT project area, whitebark pine is present but is not a major contributor to forest heterogeneity. Most trees present are immature and found in the understory. Without removal of competition, this is not likely to change, as indicated by the paucity of mature whitebark pine in these areas.

Travel designation changes are unlikely to impact any at-risk plants or populations because they concern designation changes on existing roads. No populations of at-risk plants are known to exist on these roads, and no new permanent roads would be created.

Indirect effects are those effects that are spatially or temporally disparate from project activities. Potential indirect effects of project activities may be the expansion of the range of invasive plants. See the Invasive Plants Report and section of the EA for analysis and discussion on this point.

Cumulative Effects of the Proposed Action

The geographic scope of analysis for at-risk plant species in this project is the South Plateau Landscape Area Treatment Project area. This analysis considers short and long-term management as it may affect known or suspected populations of at-risk plant species and their habitat. For SCC plants, this analysis considers past activities from 2015 to a period extending three years past final implementation of any activities planned. While

project activities have the potential for direct immediate effects, lasting impacts to habitat may only be noticeable after a few seasons. For whitebark pine the temporal bounds of this analysis are until all projects are complete. Treatments will generally avoid whitebark across most of the project area. When whitebark pine is greater than 25% in a stand, competing trees will be removed near healthy whitebark pine trees. Other timber treatments which create openings will provide opportunities for seed caching. While these treatments may be beneficial to whitebark pine, there is no predictable timescale in which changes may be seen on the landscape.

Past activities on federal and private land, including residential development, fire, road construction, grazing and timber harvest may have affected potential at-risk plant habitat and possibly populations in the past, but the degree to which this may have occurred is unknown. Regardless, any such changes created the present condition, and effects were determined in comparison to the present condition. Of the six SCC plants with potential to occur in the project area, cumulative effects will only be possible for Oregon checker mallow because it is the only species with the potential for direct effects. Since 2015, the

[16] Federal Register. 2022. Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for Whitebark Pine (Pinus albicaulis). December 15, 2022. Federal Register 87(240):76882-76917.

only ground disturbing activities on federal land to have occurred in the project area with the potential to directly affect at-risk plants are timber related activities. Because Oregon checker mallow does not grow in timbered habitats, timber harvest and precommercial thins would not have affected it. Activities on private land are unknown. No other reasonably foreseeable projects are known that would potentially overlap Oregon checker mallow range in the South Plateau project area.

The project area contains about 1200 acres of, largely untimbered, private land around its northern boundary. Elevations within this private land range from 6500 to 6700 feet. These elevations are lower than those preferred by whitebark pine, and so past, current and future actions taking place on these non- federal lands are not expected to have cumulative effects on whitebark pine due to the lack of habitat. High intensity fire can affect any populations of at-risk plants, however future occurrences of fire events of that severity are unpredictable and cannot be effectively analyzed for cumulative effects. Furthermore, activities proposed under this project have one goal being to reduce the overall severity of future wildfire events.

All other ground-disturbing activities on National Forest lands would be or have been evaluated according to policy and regulation through surveys and biological evaluations as to their impact to at-risk plant species designated by the Regional Forester and Fish and Wildlife Service prior to implementation. The impacts from proposed project activities on at-risk plants may impact some individuals and it is not unreasonable to expect that future activities might also impact individuals on federal lands. Design criteria would be applied to protect at-risk plant species and viability for any populations discovered prior to project implementation on National Forest System lands. Barring any catastrophic events, these activities are not expected to extirpate any existing populations on federal lands.

The South Plateau project is in violation of NEPA, NFMA, the APA and the ESA. The Forest Service consulted with the Fish and Wildlife Service when whitebark pine were a proposed species, Now that they are listed, the Custer Gallatin National Forest has to reconsult on the effect of the project and the revised Forest Plan on whitebark pine.

The EA is violating NEPA by giving the public incorrect information about whitebark pine. For example, the At Risk Plant Assessment states on page 8, ***Mortality may also occur from harvest activities or road building. Harvest prescriptions do not target five-needled pines. Mature whitebark would be retained to promote species diversity but smaller trees are difficult to avoid and may be damaged during timber cutting. Because whitebark pine***

is a shade- intolerant species, one recommended method of promoting its growth is reducing competition from shade tolerant trees and creating forest openings to provide opportunities for regeneration. In mixed conifer stands where the whitebark pine component is greater than 25% the project treatment matrix (Appendix A) states that conifers near healthy whitebark pine will be cleared. These treatments may reduce competition and promote the health of individual whitebark pine trees.

This is incorrect. As wrote in our comments: ***Please see the attached paper by Six et al 2021 Whitebark Genetics 2021. Six et at 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 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 et al conclude: ***Growth rate was the best predictor of survivorship with survivors growing significantly slower than beetle-killed trees over their lifetimes although growth rates converged in years just prior to increased beetle activity. Overall, our results suggest that P.***

albicaulis forests show considerable divergence among populations and within-population genetic sub-structuring, and that they may contain complex mosaics of adaptive potentials to a variety of stressors including D. ponderosae. To protect the ability of this tree to adapt to increasing pressure from beetles, blister rust, and climate change, a top priority should be the maintenance of standing genetic diversity and adaptive shifts in allele frequencies.

We wrote in our comments:

Page 7. W. Please disclose how often the Project area has been surveyed for wolverines, pine martins, northern goshawks, monarch butterflies, grizzly bears, whitebark

pine and lynx.

Page 8. X. Is it impossible for wolverines, pine martins, monarch butterflies, northern goshawks, grizzly bears, whitebark pine and lynx to inhabit the Project area?

Y. Would the habitat be better for wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears, whitebark pine and lynx if roads were removed in the Project area?

Z. What is the U.S. FWS position on the impacts of this Project on wolverines, pine martins, monarch butterflies, northern goshawks, grizzly bears, whitebark pine and lynx? Have you conducted ESA consultation?

AA. Please provide us with the full BA for the wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears, whitebark pine and lynx.

Page 9. AA. Please provide us with the full BA for the wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears, whitebark pine and lynx.

EE. Please disclose what is the best available science for restoration of whitebark pine.

Pages 83-88. Page 29 of the Draft Revised EA states: ***The proposed project incorporates at-risk plant design features that would limit negative effects to at-risk plant populations, consistent with Plan standard FW-STD-PRISK 01. Three at-risk plant species would have the potential to be affected by project activities, one of which is whitebark pine; whitebark pine is the only known at-risk plant that occurs in the project area. The botanist would survey potential treatment units before treatments are applied and if new populations of at- risk plants are found, then specific protection measures would be implemented to protect population persistence on the landscape. The proposed project is not likely to jeopardize whitebark pine because few mature trees exist in treatment units and these would be re-tained per project Design Features. Some immature trees may be lost, but this would not result in a trend toward federal list-ing. The Forest Botanist would evaluate and sign a resource review checklist at every new phase or sale of the project, and add additional mitigation measures if warranted by changing conditions.***

Not all ecosystems or all Rocky Mountain landscapes have experienced the impacts of fire exclusion. In some wilderness areas, where in recent decades natural fires have been allowed to burn, there have not been major shifts in vegetation composition and structure (Keane et al. 2002). In some alpine ecosystems, fire was never an important ecological factor. In some upper subalpine ecosystems, fires were important, but their rate of occurrence was too low to have been significantly altered by the relatively short period

of fire suppression (Keane et al. 2002). For example, the last 70 to 80 years of fire suppression have not had much influence on subalpine landscapes with fire intervals of 200 to several hundred years (Romme and Despain). Consequently, it is unlikely that fire exclusion has yet to significantly alter stand conditions or forest health within Rocky Mountain subalpine ecosystems. Whitebark pine seedlings, saplings and mature trees, present in subalpine forests proposed for 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 per-cent 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. Montana is currently experiencing a mountain pine beetle epidemic. Mountain pine beetle prefer large, older whitebark pine, which are the major cone producers. In some areas the few remaining whitebark that show the potential for blister rust resistance are being attacked and killed by mountain pine beetles, thus accelerating the loss of key mature cone-bearing trees. 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 white- bark 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 re-generation maintaining the viability and function of whitebark pine would not be achieved through burning. Please find Keane and Arno attached. Planting of rust-resistant seedlings would likely not be sufficient to replace whitebark pine lost to fire activities. What surveys have been conducted to determine presence and abundance of whitebark pine re-generation?

From page 29 of the Draft Revised EA, it appears that you won't do surveys until after the decision is signed in violation of NEPA, NFMA and the APA. 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?

Pages 88-90: Does the Custer Gallatin N.F. have any forest plan biological assessment, biological opinion, incidental take statement, and management direction amendment for whitebark pine? Please see the attached paper by Six et al 2021 Whitebark Genetics 2021. Six et at 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 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 genet-ic diversity and structuring in forest trees should be a top priority in forest adaptation and conservation efforts.

The project is not following the best available science and is not meeting the purpose and need.

Since Whitebark pine are now proposed to be listed under the ESA, you must formally recon-sult with the FWS on the impact of the project on whitebark pine. To do this the Forest Service will need to have a complete and recent survey of the entire project area for whitebark pine and consider planting whitebark pine as the best available science by Keene et al. states is the only way to get new whitebark pine to grow. The Forest Service is incorrect when it states that the project will have "No significant effects would result from this project or cumulatively with other activities on National Forest or adjacent lands that would affect at-risk plant species' ability to persist on the landscape." Since you have done no surveys of whitebark pine what is the basis of the "No effect" statement? Please formally consult with the FWS on the impact of the project on Whitebark pine. Since whitebark pine are very slow growing trees and take years to mature, what scientific evidence to you have to back up the following statement on

page 29? “Some immature trees may be lost, but this would not result in a trend toward federal listing.”

Pages 90-93: The agency is violating the NEPA by promoting fuel reduction projects as protection of the public from fire, when this is actually a very unlikely event; the probability of a given fuel break to actually have a fire in it before the fuels reduction benefits are lost with conifer regeneration are extremely remote; forest drying and increased wind speeds in thinned forests may increase, not reduce, the risk of fire. The agency is violating the NEPA by providing false reasons for logging to the public by claiming that insects and disease in forest stands are detrimental to the forest by reducing stand vigor (health) and increasing fire risk. There is no current science that demonstrates that insects and disease are bad for wildlife, including dwarf mistletoe, or that these increase the risk of fire once red needles have fallen. The agency is violating the NEPA by claiming that logging is needed to create a diversity of stand structures and age classes; this is just agency rhetoric to conceal the real of logging to the public.

The agency is violating the NEPA by using vague, unmeasureable 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.

The agency will violate the Forest Plan by logging riparian areas; almost all wildlife species will be harmed by this treatment. The agency will violate the NFMA by failing to ensure that old growth forests are well-distributed across the landscape. The Revised Forest Plan has not standards for old growth lodgepole forests in violation of NEPA and NFMA. The project is in violation of NEPA for not informing the public of this. The Revised Forest and the project are in violation of NFMA and the ESA for not insuring viable populations of natives species including grizzly bears, lynx, and wolverines.

Whitebark pine, a proposed species for federal listing under the Endangered Species Act, is found at higher elevations. Whitebark pine in the Greater Yellowstone Area exhibits lower blister rust infection than other ecosystems, such as the Northern Continental Divide. The Custer Gallatin National Forest cooperates with other agencies in the Greater Yellowstone Coordinating Committee to coordinate land management on over 15 million acres of federal land in the Greater Yellowstone Area.

Custer Gallatin NF Land Management Plan (CGLMP)(January, 2022) p. 14

Objection: Whitebark pine is a listed species with full ESA protection. The Custer Gallatin NF was so anxious to inject into this project, under the provisions of Revised Forest Plan and the NFMA 2012 Forest Planning Rule. Well, now the Plan is outdated, and needs to be amended. New management standards must be added based upon USFWS consultation, a new biological opinion (BO) and terms and conditions designed to mandate forest management standards that contribute to the recovery of the listed whitebark pine in the SPLAT project area, and forest-wide. Emphasis added. Anything less is unacceptable under the legal requirements of the ESA and NEPA.

At-Risk Plant Species (PRISK)
Introduction
This section addresses plant species that are recognized as at-risk species. This includes species recognized as threatened, endangered, proposed, or candidate species under the Endangered Species Act by the U.S. Fish and Wildlife Service and species identified by the regional forester as species of conservation concern. Species of conservation concern are species other than federally recognized species that are known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the

long term in the plan area (36 CFR 219.9; FSH 1909.12.52). Emphasis added.

The regional forester's list of plant species of conservation concern for the Custer Gallatin National Forest and associated species-specific evaluation of distribution, abundance, population trends, habitat trends, habitat attributes, and relevant threats are found at the Northern Region land management planning webpage. Forest Service Manual 2670 provides additional at-risk species management direction.

In addition to plan components outlined below, meeting or moving towards the desired conditions outlined for each of the broad potential vegetation types found in the terrestrial vegetation and invasive species sections are intended to also provide for long-term persistence of at-risk plant species.

Desired Conditions (FW-DC-PRISK)

01 Habitat conditions support the recovery and persistence of plant species that are recognized as at-risk species. Ecological conditions and processes that sustain the habitats currently or potentially occupied by these species are present.

02 Whitebark pine promotes community diversity and community stability in high mountain ecosystems. Ecological conditions and processes lead to an increase in cone-bearing trees, particularly in areas projected to be suitable under future climates, and a decrease in susceptibility to succession to more shade tolerant conifers, mountain pine beetle, wildland fire and blister rust.

Goals (FW-GO-PRISK)

01 The Custer Gallatin National Forest cooperates with the Greater Yellowstone Coordinating Committee-Whitebark Pine Subcommittee on whitebark pine conservation strategies and adaptive management of habitat.

02 The Custer Gallatin National Forest works with other agencies and landowners to expand inventories, identify potential habitat for at-risk species, and promote protection and restoration of associated habitats.

03 The Custer Gallatin National Forest collaborates with Tribes, Federal, and State agencies, and other partners regarding applicable conservation plans in seeking progress towards conservation of at-risk plant species.

Objectives (FW-OBJ-PRISK)

01 Progress towards conservation of an at-risk plant species is made by completing at least two projects per decade with design features that restore habitat or populations of such species.

02 Treat a minimum of 1,000 acres per decade for the purpose of sustaining or restoring whitebark pine. Achieving this would also contribute to FW-OBJ-VEGF-01.

Standards (FW-STD-PRISK)

01 Management activities that have potential to adversely affect the long-term persistence of at-risk plant populations shall be mitigated with project-level design criteria, or the populations avoided during project implementation. (Emphasis added.)

Guidelines (FW-GDL-PRISK)
01 To protect at-risk plant species, wildfire control lines and retardant should not be placed within known populations of at-risk plant species with the exception of where they may be allowed for purposes of restoration or being advantageous to the at-risk plant species, or when needed to protect human life or private property or to manage infrastructure. For at-risk plant populations, exceptions will be determined based on the species and habitats that may be affected in specific fire incidents.

02 To support the recovery or long-term persistence of whitebark pine, when conducting management activities in or near whitebark pine trees or stands identified for collection of scion, pollen, or seed; areas identified as important for cone production or blister rust resistance; and whitebark pine plantations, project-level design criteria or wildland fire management strategies should protect them from potential loss. (Emphasis added).
CGLMP (2022), pps. 31-32

Objection: Forest Plan Goals, Forestwide Direction, Objectives, Standards and Guidelines listed above are no longer adequate for whitebark pine. The Forest Plan must be amended. Recovery of whitebark pine is the new

forestwide management goal. The top priority at the programmatic and project level of Forest Plan implementation.

Effects on Clark's nutcrackers would be neutral. Whitebark pine treatments, although highly limited due to the relative scarcity of mature whitebark pine trees and stands of this species in the South Plateau area, would benefit Clark's nutcrackers in the mid and long term as whitebark pine that are released by removing competing conifers mature. Reduction in conifer trees in other areas may be detrimental to
Clark's nutcrackers. South Plateau Fuels and Forest Health Project (SPLAT), Wildlife Report, Randy Scarlett (West Zone Wildlife Biologist), p. 164.

Objection: No citation. Will exposing Clark's nutcrackers to predators by "…removing competing conifers…" increase or decrease the population of Clark's nutcrackers in the short-term, and/or long-term? The USFS-USDA does not know, it assumes/presumes to know. It "believes," which is more theology than biology.

The whitebark pine is a keystone species with direct and indirect, interrelated ecological links to the health of the ecosystem(s) upon which grizzly bears, squirrels, mountain pine beetle and Clark's nutcracker depend. Emphasis added.

NEPA and the ESA require that these "significant" ecosystem relationships between these four species be

maintained and improved in order to recover, and eventually remove from the ESA list whitebark pine and grizzly bears. Emphasis added. "Daylighting" selected whitebark pine using industrial machines and man-induced fire will upset the delicate balance already at play in the ecosystem – with no material assistance from man and man's "brilliant" imagination. Leave Creation to the ultimate expert, leave it to Mother Nature.

Red squirrels do not inhabit pure whitebark pine stands. This is because whitebark cone production does not occur on a reliable or predictable basis. Red squirrels, instead, forage in mixed forest
stands that include whitebark pine, where forage opportunities are more reliable. Grizzly bears, therefore, also tend to forage in mixed stands because of their reliance upon red squirrels to obtain and concentrate the whitebark pine nuts. (SPLAT), Wildlife Report, p. 28.

Objection: If you run the squirrels and Clark's nutcrackers out of the "…mixed forest stands that include whitebark pine…" you lose the squirrels, and the nut cashes. Grizzlies are significantly impacted in a negative way if cashes are lost – a "taking" of grizzlies due to preventable human arrogance and imagining that there is an absolute (scientific) truth, that in fact, more resembles a WAG ("wild ass guess") than science-based analysis.

Most of the project area is heavily forested (primarily lodgepole pine) and consists mostly of mid-seral stands dominated by lodgepole pine. Small patches of Douglas-fir are found in the lower elevations near the valley bottom.

Subalpine fir, Engelmann spruce, and whitebark pine are relatively scarce at mid and low elevations; they are restricted to a relatively small proportion of the landscape along the Idaho-Montana border and in the northwestern portion of the project area. (SPLAT), Wildlife Report, p. 29.

Objection: This description is inadequate and fails to disclose the location, amount (neither patch size, acres, or individuals in a specific location, habitat condition, nor distribution).

There is no site-specific map for whitebark pine. There must be a detailed, "fine-filter" scale map of whitebark pine added to the NEPA analysis, public disclosure and project record. NEPA and ESA require an inventory and map to demonstrate the "site-specific," "fine-filter" data and analysis required of a project-level NEPA process. Neither the public, nor the USFS-USDA have any clue as to where or how many, nor the abundance and distribution of whitebark pine groups and individuals in the project area. No disclosure is a "no-go," deal-breaker extraordinaire. This is a significant, unresolved issue, which requires an EIS, an updated SPLAT BA (biological assessment), a Forest Plan amendment and a new project-level and forestwide BO to include the significant new information of the ESA listing, and subsequent management guidance issued by the USFWS.

The SPLAT BA in the record is outdated (pre-listing), issued before the whitebark pine was listed (December, 2022) as a threatened species with full ESA protection.

Apparently, neither the project, nor the Forest Plan, has a biological opinion (BO) which reflects in the project record the proper, current status for whitebark pine. The NEPA and ESA process must be supplemented post-listing. Before proceeding, update the listed whitebark pine BA, conduct the necessary "consultation" with the USFWS and supplement the record with the appropriate Section 7 "terms and conditions," if and when an incidental take statement is issued by USFWS.

WBP SA January 2023 31

5.d. Forest (Vegetation) Management Actions

Forest (vegetation) management includes a variety of methods and techniques used to manage healthy forests, and known previous projects that fall within this action type are summarized in Table D of Appendix C. These types of forest management activities include timber harvest (using chainsaws and using machinery which may create skid trails) and management/hazardous fuels reduction (using chainsaws and using machinery which may create skid trails, to remove dead and dying trees and understory vegetation that may carry wildfire), salvage harvest (removing dead trees either by hand or using machinery which may create skid trails), pest control (use of Verbenone or Carbaryl insecticide), precommercial thinning (thinning trees that are too small for a commercial timber harvest), silviculture stand improvement projects (using a planned set of treatments such as thinning, harvesting, planting, pruning, prescribed burning, and site preparation designed to change the current stand structure and composition to one that meets a management goal), and

silvicultural reforestation activities (planning for natural regeneration or tree planting).
Forest management related road construction, maintenance, and use may also be part of vegetation management projects. Harvest of WBP has not been well tracked as records often group it with other species and incorrectly identify it as another species. Silviculture approaches create a system that excludes regeneration opportunities and increases competition by planting faster-growing species, and consequently, stands that contain WBP prior to harvest are not routinely replanted with WBP.
Projects that implement resetting the successional stage of the forest stands need to be carefully thought out and planned to increase WBP recruitment. Campbell and Antos (2003) noted that successional patterns in WBP forests are more complex than others have reported, finding that subalpine fir readily established after fire in their British Columbia study areas, and although subalpine fir density was increasing in older WBP stands with relatively open canopies, they estimated that succession to subalpine fir would take more than 500 years. Campbell and Antos (2003) reported that WBP in their study area was stress-tolerant (able to persist under conditions that restrict production), was capable of surviving long periods of suppressed growth, and was able to release upon reaching the main canopy after more than 150 years of low growth rates. The results of these studies indicate that the loss of WBP due to succession to subalpine fir and Engelmann spruce in some areas may be an extremely slow process and that WBP may be more shade-tolerant and resilient to

suppression than previously suggested. Further, thinning and timber harvest projects intended to improve WBP recruitment may increase WBP susceptibility to mountain pine beetle infestation, if the beetles do not have their preferred food sources during outbreak years. The densification of and succession of subalpine fir and Engelmann spruce co-occurred with WBP mortality caused by bark beetle outbreaks and/or blister rust; therefore, disentangling the effects of blister rust- and bark beetle-mortality on succession from the effects of fire suppression in these studies is difficult (Hartwell et al. 1997; Arno et al. 1993 in Keane et al. 1994; Flanagan et al. 1998). Projects including those in WUI, salvage harvests, and pest control efforts remove dead and diseased trees, and may encourage natural WBP recruitment. In large acreages of dead trees, salvage harvest and firewood cutting projects can be designed to avoid damaging or killing live

WBP, which may be resistant to blister rust. Projects where the removal of surface and ladder fuels through hand cutting, piling of project generated materials, and burning the piles with the purpose of increasing stand resilience to fire may also be beneficial for the recruitment of WBP. Felling trees and creating skid trails for salvage harvests may damage or kill WBP seedlings and saplings and compress the soil and undetected seeds. Implementation of the conservation measures (e.g., CM 1-10, 12-14, and 16-21) in the project design that avoid impacts to WBP seedlings, saplings, and live mature trees, and that minimizes soil disturbance and compaction that may

destroy microsites for cached seeds, interrupts drainage, and limits tree rooting will have beneficial long-term impacts to WBP.

Vegetation management includes many project types (e.g., WUI, salvage harvest of dead trees, harvest of Christmas trees, pest control, firewood collection) and sizes (less than 1 acre to thousands of acres). In this SA, we evaluated the effects of smaller forest management projects that damage or kill fewer than 125 live WBP of all age classes. Effects of larger project will be addressed by a standalone consultation or may be covered by a future standing analysis. We have elected to use a limit of 125 WBP of all age classes as a threshold for forest (vegetation) management projects, based on our understanding of the stressors to WBP, the level of ongoing restoration efforts, and our commitment to track and re-evaluate project impacts and restoration efforts for the life of this SA. While forest management projects will result in adverse effects to WBP, these should not result in population level effects for the reasons described above.

5.e. Recreation Development and Activities

The following recreational activities commonly occur in WBP habitat: construction and maintenance of hiking trails and roads (analyzed in the Infrastructure section); motorized use of trails year-round; (snow machines, all-terrain vehicles (ATV), utility task vehicles (UTV), motorcycles, electric bikes, and mountain bikes); operation of facilities (snow making, lift chairs analyzed in the Infrastructure section); firewood consumption; special use permits (hunting, photography); and horseback riding.

There are 91 recreation sites within WBP habitat in the action area, including developed campsites, horse corrals, trail heads, parking areas, toilets, staging areas, scenic overlooks, and primitive campsites. Back country campers and hikers may burn WBP for campfires, cause ground compression, climb on trees, or remove WBP when clearing trails. Motorized recreation activities, hiking, use of pack animals, and construction equipment used for trail maintenance and construction, may cause soil disturbance and compaction, destroy microsites for cached seeds, interrupt drainage, limit tree rooting, and damage seedlings. Over snow vehicles (OSV) could break the tops of trees or could damage branches or seedlings and saplings. We acknowledge that there may be some damage and death to WBP seedlings and saplings from authorized and unauthorized off-road motorized recreation activities which could affect individuals or local areas. Overall, impacts from all recreation activities could affect less than one percent of the species wide range (based on IUCN threats summary for WBP in Canada) (USFWS 2021) and are not considered a significant threat to WBP.

We conclude that, while not all adverse effects can be avoided, the implementation of the conservation measures (e.g., CM 1-14, and 16-21) will minimize impacts to WBP and that

recreation activities will not have population level effects. Agencies should educate the public about the role of WBP in the high elevation forest community, minimize (and prevent where possible) damage and removal of WBP by

backcountry recreationists, and allow trees to continue to produce seed and propagate seedlings. We have elected to use a limit of 125 WBP of all age classes as a threshold for recreation activities, namely off highway and OSV trail upgrades, replacement or new construction outside of existing disturbance, as well as existing recreation development areas (ski resorts and campgrounds). The maintenance of existing hiking and biking trails and the outfitter and guide permitting program may be implemented regardless of the anticipated damage and removal of any age class of WBP. Based on our understanding of the stressors to WBP, the level of ongoing restoration efforts, and our commitment to track and re-evaluate project impacts and restoration efforts for the life of the SA, the impacts from the projects described above should not result in population level effects for the reasons described above. Memorandum
To: Assistant Regional Director, U.S. Fish and Wildlife Service, Ecological Services, Lakewood, Colorado
From: for Field Supervisor, U.S. Fish and Wildlife Service, Wyoming Field Office, Cheyenne, Wyoming
Subject: Standing Analysis for Effects to Whitebark Pine (Pinus albicaulis) from Low Effect Projects and Whitebark Pine Restoration and Recovery Activities within Montana and Wyoming, January 17, 2023

Objection: There is no cumulative effects analysis in the Final EA, and no disclosure of the number of individual, stands, acres or any other estimate of the number of whitebark pine that will be killed in the project area. There is no estimate of the number of whitebark pine killed in

previous logging projects, including those permanently lost to clearcutting and permanent and temporary roads over decades of active timber management. These cumulative effects are significant, and yet, unquantified and undisclosed.

This is a violation of NEPA, NFMA, the APA and the ESA, 16 U.S.C. §§ 1531 et seq., to ensure that its actions do not adversely affect whitebark pine and that their actions promote conservation and

recovery of these species. The federal agencies' (USFS-USDA and USFWS) mandate is to protect and recover imperiled species and their habitats.

The project will harm whitebark pine in unknown numbers, with unknown adverse cumulative impacts.

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, as amended to reflect the listed status of whitebark pine.

Since Whitebark pine are now listed under the ESA, the USFS-USDA must formally reconsult with the USFWS on the impact of the project on whitebark pine. To do this the Forest Service will need to have a complete and recent survey of the entire project area for the presence of whitebark pine and consider planting whitebark pine as the best available science. Keene et al. states that the only way to get new whitebark pine is to grow (seedlings) them (submitted in our DEA comments).

Hundreds of acres of clearcutting and burning threaten individual whitebark pine trees in the project area, including miles and miles of new roads, and including clearings around individual whitebark pines. The Forest Service fails to disclose the level of "take" and the incredibly high failure rate of these practices as a technique for natural restoration, regeneration and recovery of whitebark pine under these conditions.

The Forest Service does not disclose or address the results of its only long-term study on the effects of tree cutting and burning on whitebark pine. This study, named "Restoring Whitebark Pine Ecosystems," included prescribed fire, "thinning", "selection cuttings," and "fuel enhancement cuttings" on multiple different sites. The results were that "[a]s with all the other study results, there was very little whitebark pine regeneration observed on these plots." See U.S. Forest Service, General Technical Report RMRS-GTR- 232 (January 2010). These results directly undermine the representations the Forest Service makes in the Project EIS. More specifically, the Forest Service's own research at RMRS-GTR-232 finds: "the whitebark pine regeneration that was expected to result from this [seed] caching [in new openings] has not yet materialized. Nearly all sites contain very few or no whitebark pine seedlings." Thus, even ten years after cutting and burning, regeneration was "marginal." Moreover, as the Forest Service notes on its website: "All burn treatments resulted in high mortality in both whitebark pine and subalpine fir (over 40%)." Accordingly, the only proven method of restoration of whitebark pine is planting: "Manual planting of whitebark

pine seedlings is required to adequately restore these sites.”

Therefor the project’s plan to cut down trees around whitebark pine will cause the whitebark pine to grow faster and then die from beetles. This is a violation of NEPA, NFMA, the APA and the ESA.

Please see the attached memo from the FWS about requirements for consulting with the FWS about whitebark pine now that they are listed as threatened.

For whitebark pine, spring or fall burning may kill seedlings susceptible to fire. For mature whitebark pine trees, the bark is relatively thin compared to other species such as ponderosa pine and susceptible to scorching from fire. Fires that approach the tree trunks may scorch the bark, diminishing the bark’s protective properties from other stressors. Depending on the fireline intensity and residence time of lethal temperatures, the heat from the fire may also penetrate the bark, killing the underlying cambium layer. Harm to the bark and cambium may reduce individual tree vigor and also increase susceptibility to infections such as white pine blister rust or infestations by the mountain pine beetle.Whitebark pine seed banks and fine roots may also be impacted should fire move through an area when fuels and soil moisture is conducive to longer residence time of lethal temper- atures. Seeds are buried by Clark’s nutcrackers generally within one inch of the soil

surface and may be susceptible to longer res- idence time of lethal temperatures. Fine roots located near the soil surface serve as the primary water absorbing roots for trees and may be harmed or killed with longer residence times of lethal temperatures when soil moisture is low which would lead to an increase in the penetration depth of lethal temperatures. In general, the proposed prescription would attempt to achieve a low severity surface fire in which shrubs, needle cast and upper duff layers would be consumed. In some instances, including dense stands in which commercial or non-commercial thinning is not feasible, higher severity fire effects may be preferred to achieve the desired condition for those forested stands.In the long term, broadcast burning in the vicinity of living whitebark pine stands may improve the habitat suitability for seed caching by Clark's nutcracker; seed germination; and whitebark pine seedling establishment. Clark's nutcrackers prefer to cache seeds in recently burned areas as fire removes understory plants and creates soils surfaces that are easier to penetrate for seed caching. In addition, in the long term, broadcast burning may reduce the vigor of other species that would compete with whitebark pine seedlings for sunlight, soil water, and nutrients."

Whitebark pine are now a threatened species and the project is in violation of the ESA.

On December 2, 2020, the U.S. Fish and Wildlife Service issued a rule proposing to list whitebark pine (Pinus albicaulis) under the Endangered Species Act. The South Plateau Project area includes whitebark pine. The

whitebark pine present in the project area represents a major source within the larger geographic area. The Project proposes tree cutting and burning across thousands of acres where whitebark pine may be present. Regardless of whether individual activities are intended to im-pact whitebark pine, whitebark pine may be affected

by damage from equipment and equipment trails, cutting, soil compaction and disturbance, mortality from prescribed burning, scorching from jackpot burning, trampling of seedlings and saplings, and removal of necessary microclimates and nursery trees needed for sapling survival. Additionally, thousands of acres of whitebark pine habitat manipulation are proposed for the Project, including intentionally cutting and burning Whitebark pine trees. No discussion on the success rate of natural regeneration under these conditions is provided. No discussion of the success rate of planting seedlings in clearcuts is provided. There have been no surveys for whitebark pine in violation of the ESA, NEPA, NFMA, and the APA.

The Forest Service admits that whitebark pine is known to be present in the area and that the Project "may impact individuals. . . ." The Forest Service further admits: "some ad- verse impacts are possible." The Forest Service further admits that "implementation of the project may cause incidental loss of whitebark pine seedlings and saplings . . . ." Crucially, the Forest Service does not disclose or address the re- sults of its only long-term study on the effects of tree cutting and burning on whitebark pine. This study, named "Restoring Whitebark Pine

Ecosystems," included prescribed fire, thinning, selection cuttings, and fuel enhancement cuttings on multiple different sites. The results were that "[a]s with all the other study results, there was very little whitebark pine regeneration ob- served on these plots." See U.S. Forest Service, General Technical Report RMRS-GTR-232 (January 2010). More specifically: "the whitebark pine regeneration that was expected to result from this [seed] caching [in new open- ings] has not yet materialized. Nearly all sites contain very few or no whitebark pine seedlings." Thus, even ten years after cut- ting and burning, regeneration was "marginal." Moreover, as the Forest Service notes on its website: "All burn treatments result- ed in high mortality in both whitebark pine and subalpine fir (over 40%)." Accordingly, the only proven method of restoration of whitebark pine is planting: "Manual planting of whitebark pine seedlings is required to adequately restore these sites."

Please find attached "Restoring Whitebark Pine Ecosystems in the Face of Climate Change
Robert E. Keane, Lisa M. Holsinger, Mary F. Mahalovich, and Diana F. Tomback" and "Restoring Whitebark Pine Forests of the Northern Rocky Mountains, USA Robert E. Keane and Rus- sell a. Parsons."

REMEDY

Withdraw the draft Decision Notice, formally consult with the FWS and then write an EIS that fully complies with the law. Or choose the No Action alternative.

CARBON

We wrote in our comments:

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 (CO_2) 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 atmos- pheric CO_2. Unsurprisingly the EA doesn't state that simple fact.

The Forest Service responded:

Please see the Revised Fire and Fuels specialist report for additional air quality analysis. Please see Carbon section

of the Final EA and Carbon report for greenhouse gas emission discussion.

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 relat- ing to desired future condition. Forest managers have failed to dis- close 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. (See attached map). 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 car- bon

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 CO_2 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 a 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 condi- tions are in the context of a rapidly changing climate, along an un- predictable 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 impli- cates 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 (CO_2) 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 CO_2. 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 vari- ous types of vegetation cover found on the CGNF.

The EA also ignores CO_2 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 pro- gram. Please find the order attached.

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 leas- ing, 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, Mon- tana Environmental Information Center, Powder River Basin

Resource Council, Northern Plains Resource Council, the Sier- ra 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 inves- tigator 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 pa- leoecologist Philip Higuera, biologist Anna Sala and geoscientist Marco Maneta at UM along with colleagues at the U.S. Forest Ser- vice 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 cli- mate 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 of- ten. 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 find- ings, 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 regenera- tion. High fire severity and low seed availability further reduced the probability of post-fire regeneration. Together, our results

demon- strate 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." Wildfires and climate change push low-elevation forests across a critical climate threshold for tree regeneration, PNAS (2018), Kimberley T. Davis, et al. (Please, find attached)

Forests are already experiencing emissions-driven deforestation on both the post-fire and post-logging acreage. Areas where the cumula- tive 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-Ru- mens et al. (2018). (Please find attached)

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 demon- strates a change of course is critical. It is time to take a step back, as- sess 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 “re- silience” 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 pub- licly 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-forested 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 National 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

Suggested remedies: 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 cli- mate 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 since and the purpose and need will not work.

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

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 in- creased 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, eco- nomic, 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.

Please see the article below about the South Plateau project in Climate News.

Logging Plan on Yellowstone's Border Shows Limits of Biden Greenhouse Gas Policy

Despite new "guidance," the Forest Service moves to clear-cut mature pines in Montana without a detailed accounting of the cost in carbon emissions.

https://insideclimatenews.org/news/07042023/logging-deforestation-custer-gallatin-national-forest/

by Marianne Lavelle
April 7, 2023

This story by Inside Climate News is part of Deforestation Inc., a global investigation by the International Consortium of Investigative Journalists.

U.S. government agencies are expected to quantify the climate impact of their actions under new guidance issued by President Joe Biden's administration at the start of this year.

But last month, the U.S. Forest Service decided to move forward with a 16,000-acre logging project on the border of Yellowstone National Park without applying the new White House guidance, which would have involved a detailed projection of the resulting greenhouse gas emissions.

The Forest Service said it was already in the final stages of developing its management plan for the South Plateau in Custer Gallatin National Forest in Montana when the White House Council on Environmental Quality delivered the new guidance to federal agencies on Jan. 9.

As a result, the agency announced its decision on March 15 without calculating the cost of the sequestered carbon that would be released under the plan, which includes clear-cutting 5,500 acres of mature lodgepole pine trees

and constructing 57 miles of logging roads in the heart of grizzly bear country.

Instead, the Forest Service produced a brief analysis concluding that the climate impact was likely to be small and "temporary."

The decision raises questions about the practical import of such presidential "guidance" and other White House declarations and the Biden administration's overall commitment to arresting climate change. Even though Biden embraces the climate science that President Donald Trump rejected and has signed legislation pouring billions of federal dollars into addressing the crisis, the logging controversies suggest that he is far from achieving the kind of "all of government" urgency on climate that has been his stated goal.

National forests hold the country's greatest concentration of mature and old-growth trees, which play an outsize role in storing and absorbing carbon dioxide emissions. But so far, no law or regulation is in place to prioritize carbon sequestration over the Forest Service's other long-standing mandates, including timber production.

Environmentalists say the Forest Service is minimizing the impact of losing so many mature and old-growth trees at a critical moment in the climate battle, even if the stands grow back over the coming decades. They argue that the project is at odds not only with the new White House guidance but also with an executive order Biden

signed last year on protecting carbon-rich older trees on public lands.

"The notion that clear-cutting more than 5,000 acres of mature forest has a negligible effect on carbon sequestration just doesn't hold up against the science," said Ellen Montgomery, director of the public lands campaign at Environment America.

Federal agencies have broad discretion on how and when to apply the new guidance from the Council on Environmental Quality, or CEQ. Such guidance is not binding or legally enforceable, but is the administration's view of what the law requires. Biden has directed the Forest Service to conduct the first-ever inventory of mature and old-growth stands in national forests, due to be completed by mid-April. But such trees are on the chopping block in more than 20 advancing projects. Many of them, like the Custer Gallatin plan, were originally proposed during the Trump administration.

Putting Emissions Into a Real-Life Context

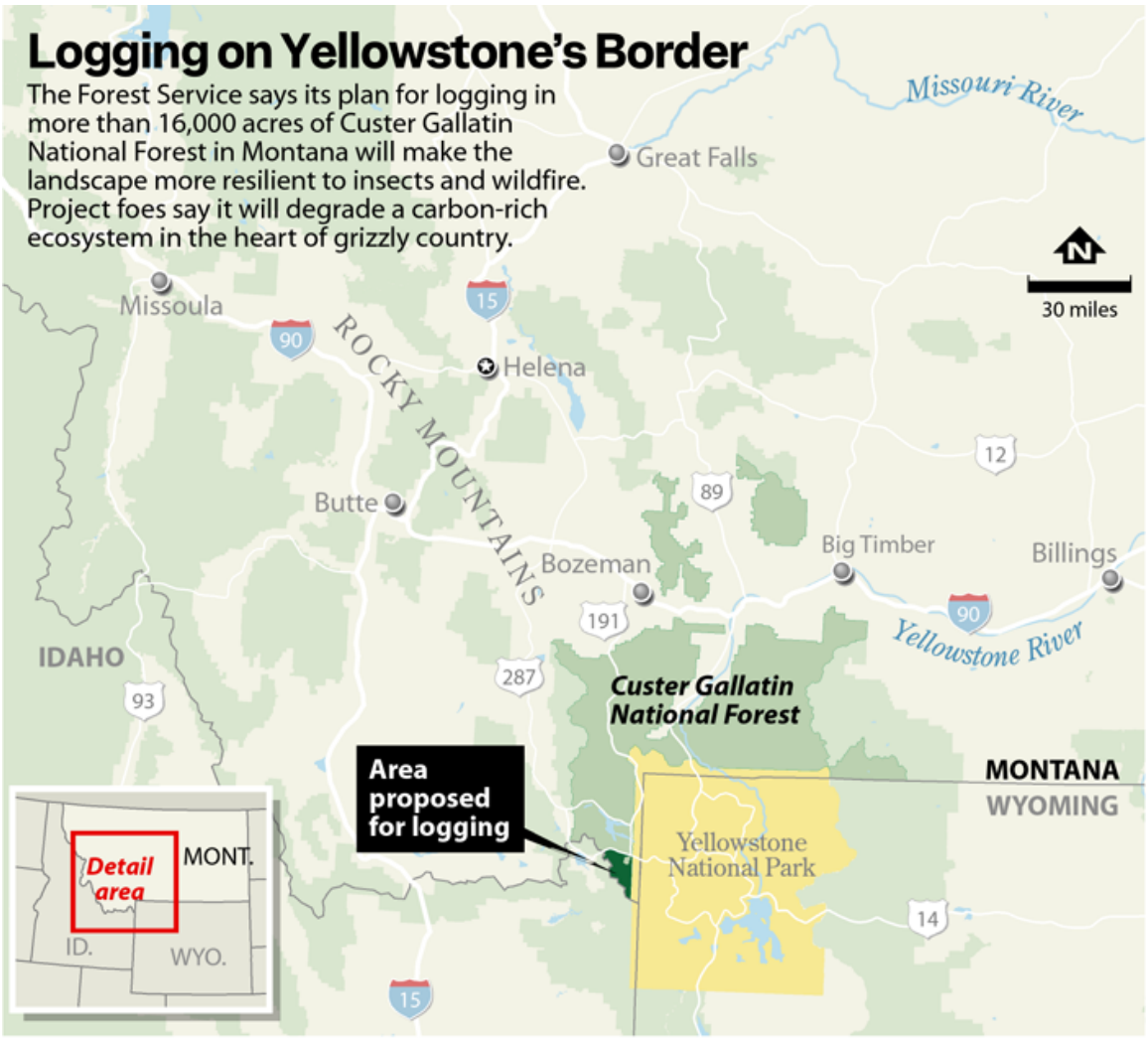
The White House CEQ, responsible for coordinating policy across the executive branch, said that agencies should be including far more detailed climate accounting in the environmental assessments they are required to conduct for all major actions under the 1970 National Environmental Policy Act, or NEPA.

"The United States faces a profound climate crisis and there is little time left to avoid a dangerous—potentially

catastrophic—climate trajectory," said the new guidance signed by the CEQ's chair, Brenda Mallory. "Climate change is a fundamental environmental issue, and its effects on the human environment fall squarely within NEPA's purview."

The key change urged by the White House council was for agencies to provide more context in their environmental assessments, preferably by calculating the "social cost" of the carbon emissions produced or reduced by a federal action.

Agencies typically have not calculated the social costs of carbon under the National Environmental Policy Act. But for years, they have used the social cost of carbon under a separate law—the Administrative Procedure Act—when they write federal regulations. That law requires agencies to estimate the costs and benefits of rules, which often involves quantifying concepts such as the value of human lives saved. Since President Barack Obama's administration, agencies have used the social cost of carbon to translate the impact of greenhouse gas emissions on health, environment and the economy into dollars.



SOURCE: U.S. Forest Service

PAUL HORN / Inside Climate News

During the Trump years, agencies set the social cost of carbon at as little as $1 per ton, reflecting the low value put on climate action. But in 2021 the Biden White House brought back the metric used by the Obama administration, about $52 per ton. Recently, in new proposed methane regulations, Biden's Environmental Protection Agency has asked for public comment on setting the social cost of carbon as high as $190 per ton, as some economists have recommended.

Without context, however, a raw estimate of metric tons of carbon doesn't provide much helpful information to the public. In its new guidance, CEQ said agencies should take steps such as illustrating how an action will help the nation meet its climate commitments. For example, an agency can discuss how the emissions impact of an action squares with Biden's pledge to cut U.S. emissions in half by 2030 under the 2015 Paris accord. The CEQ also recommended that agencies use familiar comparisons to show the size of emissions—for example, in terms of the number of cars on the road or the gallons of gasoline burned.

"There's no perfect way to contextualize greenhouse gas emissions," said Max Sarinsky, senior attorney at the Institute for Policy Integrity at the New York University School of Law. "I think the ways that CEQ suggests—particularly, the social costs of greenhouse gases and considering carbon budgets and climate commitments—is really a thoughtful way to show what the emissions mean."

Sarinsky said agencies had previously provided either no context or misleading comparisons in their NEPA analyses, particularly during the Trump administration.

For example, in 2019, the Forest Service approved a 14,270-acre logging project in Vermont's Green Mountain National Forest on the basis of an environmental assessment that said only that the carbon emissions would be "negligible" by comparison with total global or national emissions.

The new guidance says such statements don't pass muster under NEPA. "This approach does not reveal anything beyond the nature of the climate change challenge itself —the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect," the CEQ said.

'Death by a Thousand Small Cuts"

In the NEPA analysis for the South Plateau logging project in Custer Gallatin, the Forest Service isn't quite as dismissive of the carbon impact question as it was in some of the Trump-era environmental assessments. But the agency still frames the loss of old trees, most of them more than 90 years old, as an action with little climate impact.

Electric Peak in Yellowstone seen from the Custer Gallatin National Forest. Credit: National Park Service
For example, the Forest Service estimates that its logging plan would affect just 0.25 percent of the forested area of the 2.5 million-acre Custer Gallatin, a wild and diverse landscape that includes hundreds of glaciers as well as pine savannas. The logging would remove "much less than" 1 million metric tons annually over the 10-year project, a small portion of the 110 million metric tons of stored carbon in Custer Gallatin, the service said.

But a social cost of carbon analysis would project that even under the lower estimate used by the Biden administration, $52 per ton, 500,000 metric tons of

annual carbon emissions annually—only half the number given by the Forest Service in its example—would cost about $27 million a year in greenhouse gas impact in the early years of the project.

That is a cost of some significance, in light of the agency's own economic analysis showing the South Plateau logging plan would operate at a financial loss. At current timber prices, the labor and other costs of logging would exceed the anticipated timber sale revenue by anywhere from $1.1 million to $3.2 million, the Forest Service's economist calculated. (The economist said many of the costs and benefits associated with a project—for example, wildlife habitat improvement—are not quantifiable in financial terms.)

Using other metrics suggested by the CEQ guidance, annual emissions of 500,000 metric tons of carbon would exceed the impact of putting an additional 100,000 cars on the road each year or opening a new natural gas-fired power plant, according to the EPA's greenhouse gas equivalency calculations.

"The excuse that this is just an infinitesimal amount of carbon doesn't hold up," said Randi Spivak, public lands director for the Center for Biological Diversity. "Climate change by nature is death by a thousand small cuts."

Spivak's group is part of a broad coalition of environmental organizations, the Climate Forests campaign, that is urging the Forest Service to abandon this and other logging projects planned or underway that

target more than 370,000 acres of mature and old-growth trees nationwide.

At a time when the federal government is investing billions of dollars in research and development of carbon capture technology under the infrastructure and clean energy spending bills signed by Biden, environmentalists say it makes no sense to release carbon already being stored in trees on public land.

"Think of the value that our old-growth or mature forests have," Montgomery said. "We don't have to get them online, we don't need to transport them. They're literally standing there, sucking up carbon for us."

The Forest Service maintains that the South Plateau logging project will increase the landscape's resilience to insects and disease, reduce wildfire risk and "contribute to a sustained yield of timber products." Those wood products also will provide long-term storage of carbon, the agency says.

Environmentalists argue that the Forest Service overstates the carbon storage value of wood products. They also dispute the benefit of thinning and clearing remote lodgepole pine forest that relies on wildfire to regenerate.

But the Forest Service maintains that such management is likely to increase carbon storage and reduce emissions over the long term by reducing the risk of the insects, disease and wildfire that are causing the greatest loss of carbon from forests in the West.

"Any carbon initially emitted from this proposed project's actions will only have a temporary influence on atmospheric CO2 concentrations as carbon will be removed from the atmosphere over time as the forest regrows," the Forest Service's three-page summary of the project's potential carbon effect says.

Asked about the logging decision, the White House CEQ pointed to language in the new greenhouse gas guidance showing that agencies have leeway in deciding whether to apply it. "Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an ongoing NEPA process," the text says.

A spokesperson for Custer Gallatin National Forest said that officials anticipate applying the guidance to projects that started after its Jan. 9 effective date and may abide by it where practical to those that began earlier.

"The Custer Gallatin National Forest strives to continually improve our NEPA process for decision-makers and the public," the spokesperson said. "We anticipate using the new guidance to improve our analysis of greenhouse gas and climate change effects, particularly employing the social cost of greenhouse gas emissions and improving project-level quantitative analysis of greenhouse gas effects when it is reasonable to do so."

Overlooking the Yellowstone River drainage from Custer Gallatin National Forest. Credit: National Park Service

Harnessing Federal Guidance as a Legal Tool

Environmentalists note that previous clear-cuts in nearby Caribou-Targhee National Forest were visible from space, in sharp contrast with the forest in neighboring Yellowstone National Park, where no logging is allowed. They also point out that the Forest Service's own analysis concluded that the Custer Gallatin logging and road-building is "likely to have adverse effects" on grizzly bears, though not on the species as a whole.

The South Plateau, a corridor within the Greater Yellowstone Ecosystem, is used by grizzlies and other endangered species pressured by climate change.

NEPA doesn't require agencies to choose the least environmentally harmful option in weighing project alternatives, but the law has been a powerful tool for opponents of federal actions. Even under Trump, who sought to weaken scrutiny of climate effects in the assessment process, federal courts stopped at least a dozen mining, fracking and pipeline projects approved by his administration—including Keystone XL—because agencies had failed to adequately consider greenhouse gas impacts.

And although the new CEQ guidance does not have the force of law, it could serve as important proof in legal challenges. "There have been numerous court cases in the past that have cited CEQ guidance—not as binding, but as evidentiary of what best practices are," Sarinsky said.

Already, the Biden administration faces at least two lawsuits—over its approval of ConocoPhillips' Willow oil drilling project in the Arctic and over a large offshore oil lease sale that was held on March 29 in the Gulf of Mexico—claiming, among other issues, that agencies failed to follow the new guidance on NEPA. Meanwhile, the oil and gas industry appears to be alarmed by the new guidance. The American Petroleum Institute, which has made speeding the NEPA process a top lobbying priority, has called on the Biden administration to rescind its guidance on climate-impact accounting as "unprecedented and unsound."

Environmentalists counter that the guidance needs to be strengthened. For one thing, they say, the language should make clear that carbon impact of such projects should not be dismissed as "temporary," given the relentless pace of climate change.

The public has until the end of April to file objections to the Custer Gallatin plan, and the White House has signaled it may amend the CEQ's guidance in response to public comments it is accepting through April 10. Carolyn Ramírez, a staff scientist at the Natural Resources Defense Council, said environmental groups are submitting comments to CEQ urging that agencies supply an explicit timeline for any claimed offset or reversal of a project's total carbon emissions.

"If you cut down a bunch of 80-year-old stands that are starting to have old-growth characteristics, it will obviously take 80 years or more to get those qualities back

in that forest," Ramírez said. "And that's too much time for us to say that the current greenhouse gas impacts are minimal. We don't have 100 years."

This article is part of "Deforestation Inc.," a global investigation organized and led by the International Consortium of Investigative Journalists in collaboration with 39 media partners. At climate talks in 2021, world leaders pledged to halt forest loss and degradation by 2030. During a nine-month investigation, 140 journalists from 27 countries delved into why and how nations are falling short of meeting that goal.

Marianne Lavelle

Reporter, Washington, D.C.

Marianne Lavelle is a reporter for Inside Climate News. She has covered environment, science, law, and business in Washington, D.C. for more than two decades. She has won the Polk Award, the Investigative Editors and Reporters Award, and numerous other honors. Lavelle spent four years as online energy news editor and writer at National Geographic. She spearheaded a project on climate lobbying for the nonprofit journalism organization, the Center for Public Integrity. She also has worked at U.S. News and World Report magazine and The National Law Journal. While there, she led the award-winning 1992 investigation, "Unequal Protection," on the disparity in environmental law enforcement against polluters in minority and white communities. Lavelle received her master's degree from Columbia University Graduate School of Journalism, and is a graduate of Villanova University.

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REMEDY

Withdraw the draft Decision Notice and write an EIS that fully complies with the law or choose the No Action alternative.

FIRE PLAN

We wrote in our comments:

1. Did the Forest Service conduct NEPA analysis (i.e. an EA or EIS) for the Fire Plan?

2. If the Forest Service did not conduct NEPA for the Fire Plan, please immediately start that NEPA process.

3. ***Please provide a map showing the WUI and the locations of all homes in com- parison to the project area.***

4. ***If the Forest Service did not conduct NEPA for the Fire Plan, please disclose the cumulative effects of Forest-wide imple- mentation of the Fire Plan in the DEIS to avoid illegally tier- ing to a non-NEPA document. Specifically analyze the deci- sion to prioritize mechanical, human-designed, somewhat ar- bitrary treatments as a replacement for naturally-occurring fire.***

5. ***Did the Forest Service conduct ESA consultation for the FirePlan?***

The Forest Service responded:

Please see the Revised Fire and fuels specialist report for additional analysis.

The Forest Service is tiering to the fire plan so NEPA must be done on it so the public has a chance to comment. The Forest Service must consult with the USFWS on the Fire Plan and impact of this project on lynx, lynx critical habitat and and the NRLMD in lynx habitat and give the public a chance to comment on this consultation. It is a violation of NEPA, NFMA, the APA, and the ESA to not do so.
The Remedy is to pull the draft Decision Notice and write an EIS after the public has a chance to see and comment on the Forest Service's consultation with the USFWS on this impacts of this project and lynx habitat.

Old Growth

We wrote in our comments:

NN. Disclose the current level of old growth forest in each third order drainage in the Project area;

OO. Disclose the method used to quantify old growth forest acreages and its rate of error based upon field review of its predictions;

PP. Disclose the historic levels of mature and old growth forest in the Project area;

QQ. Disclose the level of mature and old growth forest necessary to sustain viable populations of dependent wildlife species in the area;

RR. Disclose the amount of mature and old growth forest that will remain after implementation;

SS. Disclose the amount of current habitat for old growth and mature forest dependent species in the Project area;

TT. Disclose the amount of habitat for old growth and mature forest dependent species that will remain after Project implementation;

UU. Disclose the method used to model old growth and mature forest dependent wildlife habitat acreages and its rate of error based upon field review of its predictions;

Disclose maps of the area that show the following elements:

Old growth forest in the Project area;

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?

The agency will violate the NFMA by failing to ensure that old growth forests are well-distributed across the landscape with a Forest Plan amendment; although not provided in the scoping document for public comment, the agency is amending the Forest Plan to allow logging of old growth rather than preserving it.

The agency will violate MA 13 direction for old growth by removing some forest stand types as suitable old growth, as per a Forest Plan amendment, or possibly removing the 30% standard; it is not clear what is expected; old

growth habitats will not be protected as they can be logged down to a few trees.

The Forest Service responded:

The Revised Forested Vegetation Report includes information on the project's consistency with EO 14072.

The South Plateau project is not ensuring the viability of old growth dependent species in violation of NFMA, NEPA, the ESA and the APA

Remedy: Choose the No Action alternative or pull the draft decision and write an EIS that follow all laws and requirements including the Forest Plan definition and standards for old growth.

Roadless areas

We wrote in our comments

Please analyze the wilderness characteristic of the project area both the inventoried and uninventoried roadless areas. The road- less areas are proposed as wilderness in the Northern Rockies Ecosystem Protection Act, H.R. 996 and S. 3022.

The Forest Service recognizes the value of forestland unencum- bered by roads, timber harvest, and other development. Some- times these areas are known as "inventoried roadless areas" if they have been inventoried through the agency's various Road- less 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 con- gressional designation as a Wilderness Area.

Roadless areas provide clean drinking water and function as bio- logical strongholds for populations of threatened and endan- gered 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 bul- warks 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; refer- ence landscapes; natural appearing

cultural properties and sacred sites; and other locally identified unique characteristics.

The agency is violating the Roadless Area Rule by burning (1,600 acres) and cutting trees (240 acres) in inventoried road- less lands; specific measurable criteria were not provided as to why these treatments will promote natural processes and wildlife.

The agency will violate the Forest Plan by logging riparian ar- eas; almost all wildlife species will be harmed by this treatment.

The agency is violating the NEPA and the ESA by claiming that treating aspen stands in roadless lands will benefit the grizzly bear; if protection of aspen is needed for the grizzly bear, then livestock use should be reduced/ removed, since this is the cause of degradation.

The agency is violating the Roadless Area Rule by proposing prescribed burning of 1,600 acres to control fire in adjacent

landscapes; this rationale would allow the treatment of all IRAs and make the purpose of the Roadless

Area Conservation Rule meaningless, since the main function of IRAs would be fire management of adjacent landscapes.

The agency will violate the NFMA by failing to ensure that old growth forests are well-distributed across the landscape with a Forest Plan amendment; although not provided in the scoping document for public comment, the agency is amending the For- est Plan to allow logging of old growth rather than preserving it.

The project is in violation of NEPA, NFMA and the APA for not adequately demonstrating the project will comply with the road- less rule, NEPA, NFMA, and the APA. The Northern Rockies Ecosystem Protection Act has been rein- troduced in the current Congress as S. 1276 in the Senate and H.R. 1755 in the House and would designate inventoried road- less areas in the project area as wilderness and potentially desig- nate unroaded areas as wilderness and/or travel corridors.

The Forest Service responded:

There is no designate or recommended wilderness in the project area. Please see the Roadless and Unroaded report for discussion pertaining to the unroaded expanse.

The Dry Canyon Roadless Area (approximately 3,242 acres) as identified in the Gallatin NF Plan is located in the South Fork of the Madison Drainage, adjacent to portions of South Plateau Project Area. The Two Top Roadless Area (approximately 6990 acres) is located along the western boarder of the South Plateau Project Area; 6.5 miles Southwest of the town of West Yellowstone, MT. Direct, Indirect Cumulative Effects to Inventoried RoadlessThere are no actions or activities planned in the Dry Canyon IRA or Two Top IRA. There are no direct effects, indirect or cumulative effects to inventoried roadless because there are no changes to the natural integrity, apparent naturalness, remoteness, solitude, special features, and manageability of boundaries as a result of the South Plateau project. Unroaded "Unroaded areas" are defined as contiguous lands adjacent to inventoried roadless areas that may have roadless characteristics similar to the inventoried roadless areas. For the purpose of this analysis, specialists considered all areas within the project area or adjacent to the IRA, that may meet any portion of this definition. There are approximately 14,000 acres of Forest Service land that have been identified as unroaded within the project areas or that lie adjacent to it. These

two areas are called the Dry Canyon IRA and the Two Top IRA. As well as recommended wilderness in YNP. The 14,000 acres are not contiguous- approximately 7,000 are adjacent to Two Top while the other 7,000 are adjacent to Dry Canyon IRA. Applicable Laws, Regulations, Policy and Forest Plan and Travel Plan Direction The National Forest Management Act, and associated agency policy directs the agency to evaluate all roadless lands for their suitability for designation as wilderness within the Wilderness Preservation system. The Final Environmental Impact Statement for the Gallatin National Forest

South Plateau Area Landscape Treatment Project Final Environmental Assessment202 Plan approved in 1987 evaluated roadless characteristics for all inventoried roadless lands on the forest (at that time), and made recommendations for future inclusion in the wilderness preservation system. 36 CFR Part 294, Roadless Area Conservation Rule (2001 Roadless Rule) establishes prohibitions on road construction, road reconstruction, and timber harvesting in inventoried roadless areas on National Forest System lands. The intent of this final rule is to provide lasting protection for inventoried roadless areas within the National Forest System in the context of multiple-use management. The Secretary's Memorandum 1042-154 (5/28/09) is intended to assure the careful evaluation of actions in inventoried roadless areas while long term roadless policy is developed.

The project is in violation of roadless rule, NEPA, NFMA and the APA for not adequately demonstrating the project will not violate the roadless rule, NEPA, NFMA, and the APA.
The Northern Rockies Ecosystem Protection Act has been reintroduced in every Congress since 1992. In the last Congress it was introduced as S. 1276 in the Senate and H.R. 1755 in the House and would designate inventoried roadless areas in the project area as wilderness and potentially designate unroaded areas as wilderness and/or travel corridors. It will be reintroduced in the current Congress this month.

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/
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