

November 2, 2020

Objection Reviewing Officer

USDA Forest Service

Northern Region

26 Fort Missoula Road

Missoula, MT 59804

This letter is an objection, pursuant to 36 CFR section 218, to the Elk Smith Project Draft Decision Notice and Finding of No Significant Impact on behalf of the Alliance for the Wild Rockies, Native Ecosystems Council, Montana Ecosystems Defense Council and William Madden, collectively, “AWR.”.

We are incorporating our previous objection into this objection.

The Responsible Official is Rocky Mountain District Ranger Michael Munoz, in the Helena-Lewis and Clark National Forest. The Elk Smith Project is planned for the

Rocky Mountain Ranger District of the Helena-Lewis and Clark National Forest in Lewis and Clark County, Montana.

NOTICE IS HEREBY GIVEN that AWR objects pursuant to 36 CFR section 218 to the Responsible Official's selection of the proposed action, Alternative 2, which includes logging and/or burning on 10,331 acres.

AWR is objecting to this project on the grounds that implementation of the Selected Alternative would not be fully in accordance with the laws governing management of the national forests such as Clean Water Act, the ESA, NEPA, NFMA, the Lewis and Clark Forest Plan and the APA, 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.

As a result of the Draft DN, individuals and members of the above-mentioned groups 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 HLCNF). 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

Objector Sara Jane Johnson

Director, Native Ecosystems Council,

P.O. Box 125

Willow Creek, MT;

Steve Kelly

Montana Ecosystems Defense Council

P.O. Box 4641

Bozeman, MT 59772

William Madden

12129 Elk Creek Road

Augusta 59410

Mailing address:

William Madden

P.O. Box 523

Augusta, MT 59410

2. Signature of Lead Objector:

Signed this 2nd day of November, 2020 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:
Elk Smith Project;

Michael Munoz, District Ranger, Rocky Mountain Ranger District, Helena-Lewis and Clark National Forest is the Responsible Official; The project is in the Rocky Mountain Ranger District of the Helena-Lewis and Clark National Forest. Ranger Munoz chose Alternative 2 in the Draft Decision Notice and FONSI.

NOTICE IS HEREBY GIVEN that AWR ,Native Ecosystems Council (NEC) and William Madden object pursuant to 36 CFR section 218 to the Responsible Official's adoption of the Alternative 2. As discussed below, the Elk Smith Project as proposed violates the National EnvironmentalPolicy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Lewis and Clark Forest Plan and the Administrative Procedure Act (APA).

Location

This Draft Decision Notice calls for: logging (cutting by hand) and or prescribed burning on 10331 acres of Helena-Lewis and Clark National Forest (HLCNF) in Lewis and Clark County. The project is located in the Elk and Smith Creek drainages on the Rocky Mountain Ranger District .

5. Specific Issues Related to the Proposed Projects, including how Objectors believes the Environmental Analysis or Draft Decision Notice and FONSI specifically

violates Law, Regulation, or Policy: We included this under number 8 below.

Thank you for the opportunity to object on the Elk Smith Project. Please accept this objection from me on behalf of the Alliance for the Wild Rockies, Native

Ecosystems Council and William Madden. Mr. Madden is a member of the Alliance for the Wild Rockies and a home owner along Elk Creek in the project area

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 is also in lynx critical habitat. 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:

The agency can choose the No Action Alternative and the agency needs to complete the surveys for lynx required by U. S. District Court to review the proper designation of lynx critical habitat.

The HLCNF must also consult with the Fish and Wildlife Service forest wide on and the impact of the project on lynx, lynx critical habitat, grizzly bears and wolverines. Without these corrective actions, implementation of the the

Elk Smith project, will lead to severe, irretrievable impacts on almost all wildlife species on the Forest. These impacts, if continued across the HLCNF for other projects, will erode the viability of a huge number of wildlife species across this landscape.

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

The draft decision violates the Objection rule, the APA, NFMA and the Healthy Forest Act.

In the September 22, 2020 Fairfield Sun Times is the following reprint of the legal notice published in the Helena Independent Record.

***Notice of Opportunity to Object to Elk
Smith Project***

**[https://www.fairfieldsuntimes.com/news/
state/notice-of-opportunity-to-object-to-elk-](https://www.fairfieldsuntimes.com/news/state/notice-of-opportunity-to-object-to-elk-)**

[smith-project/article_35bbf816-fcf8-11ea-ad2d-93207d453e91.html](https://www.fs.usda.gov/project/?project=58765)

The District Ranger for the Rocky Mountain Ranger District, Michael Munoz, announced last Friday that he initiated a 45-day objection period for the Elk Smith Project. The objection period allows individuals and organizations the opportunity to review a Supplemental Environmental Assessment and draft Decision Notice and file an objection if they have concerns with the project. A Notice of Opportunity to Object was published in Helena, Montana's principal newspaper affiliate, the Independent Record, on September 18th. The Supplemental Environmental Assessment and draft Decision Notice/Finding of No Significant Impact are available online at <https://www.fs.usda.gov/project/?project=58765>. These documents are also available for review at the Rocky Mountain Ranger District Office in Choteau, Montana. Additional information can be obtained by contacting Michael Munoz, Rocky Mountain District Ranger at (406) 466-5341.

The Elk Smith Project is located on the Rocky Mountain Ranger District about 15 miles southwest of Augusta, Montana. The purpose of this project is to reduce fuels on 10,329 acres utilizing a combination of treatments, including hand-slashing small conifers and prescribed burning. These proposed activities would reduce fuel loading, which would increase the potential to effectively manage wildfires, especially relative to personnel safety and financial costs within the project area and on lands immediately to the west. This project contains no commercial timber harvest and no road building. This project falls entirely within Lewis and Clark County which is covered by the Tri-County Community Wildfire Protection Plan.

The problem is the link to the project documents does not work. Below is a screen shot of what the public sees when they click on the link for the Elk Smith project.

Invalid Project

There is not a copy of the legal notice on the website or the draft decision as required by the objection rule. The public can not object if the information is not available to read.

The Helena-lewis and Clark national Forest has been very clear to Dr. Johnson that they won't mail information to the public like the Elk Smith draft decision since it is on the website. Since the Elk Smith draft decision is not on the website, the project is also in violation of NEPA.

The Remedy is to withdraw the draft decision, put the new Elk Smith information on the Helena-Lewis and Clark Forest website, and publish a new legal notice with a new 45 comment period.

We wrote in our March 15, 2018 comments: "MM. Please take a hard look at how climate change affects and is affected by this project in violation of NEPA, NFMA, the Forest Plan and the APA."

The NEPA requires a "hard look" at climate issues, including cumulative effects of the "treatments" in the proposed project when added to the heat, drought, wind and other impacts associated with increased climate risk.

Regeneration/Restocking failure following wildfire, prescribed fire and/or mechanical tree-killing has not been

analyzed or disclosed. There is a considerable body of science that suggests that regeneration following fire is increasingly problematic.

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

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

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

Achievable future conditions as a framework for guiding forest conservation and management, Forest Ecology and

Management 360 (2016) 80–96, S.W. Golladay et al.
(Please, find attached in our first objection.)

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

It is now time to speak honestly about unrealistic expectations relating to desired future condition. Forest managers have failed to disclose that at least five common tree species, including aspens and four conifers, are at great risk unless atmospheric greenhouse gases and associated temperatures can be contained at today’s levels of concentration in the atmosphere. (See attached map in our first objection). This cumulative (“reasonably foreseeable”) risk must not continue to be ignored at the project-level, or at the programmatic (Forest Plan) level.

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

It is clear that the management of the planet’s forests is a nexus for addressing this largest crisis

ever facing humanity. Yet the EA fails to even provide a minimal quantitative analysis of project- or agency-caused CO₂ emissions or consider the best available science on the topic. This is

immensely unethical and immoral. The lack of detailed scientific discussions in the EA concerning climate change is far more troubling than the document’s failures on other topics, because the consequences of unchecked climate change will be disastrous for food production, sea level rise, and water supplies, resulting in complete turmoil for all human societies. This is an issue as serious as nuclear annihilation (although at least with the latter we’re not already pressing the button).

The EA provided a pittance of information on climate change effects on project area vegetation. The EA provides no analysis as to the veracity of the project’s Purpose and Need, the project’s objectives, goals, or desired conditions. The FS has the responsibility to inform the public that climate change is and will be bringing forest change. For

the Galton project, this did not happen, in violation of NEPA.

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

The Forest Plan does not provide meaningful direction on climate change. Nor does the EA acknowledge pertinent and highly relevant best available science on climate change. This project is in violation of NEPA.

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

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

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

The EA also ignores CO₂ and other greenhouse gas emissions from other common human

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

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

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

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

time to prepare an EIS on the whole bag of U.S. Government climate policies.

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

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

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

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

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

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

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

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

243–252, Stevens-Rumens et al. (2018). (Please find attached to our first objection.)

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

Both RPA and NFMA mandate long-range planning which impose numerous limitations on commodity production, including grazing, timber harvesting practices and the amount of timber sold annually. These long-range plans are based on assumptions, which are based on data, expert opinion, public participation and other factors that all, well almost all, view from a historical perspective. Assumptions that drove forest planning guidance decades ago, when

climate risk was not known as it is today, are obsolete today.

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

A proper reexamination of the assumptions relating to resilience and sustainability contained in the Forest Plan is necessary. Scientific research supporting our comments focus on important data and analysis. A full discussion and disclosure of the following is required: 1) trends in wildfires, insect activity and tree mortality, 2) past regeneration

success/failure in the project area, and 3) climate-risk science – some of which is cited below. Our comments, and supporting scientific research clearly “demonstrates

connection between prior specific written comments on the particular proposed project or activity and the content of the objection...”

Supporting reasons (comments) to consider:

1) Comment: “MM. Disclose the impact of climate change on the efficacy of the proposed treatments;”

2) Comment: “Hayward, 1994 essentially calls into question the entire manipulate and control regime, as represented in the EA. The managed portion of the Lewis and Clark National Forest has been fundamentally changed, as has the climate, so the Forest Service must analyze how much land has been fundamentally changed forest wide compared to historic conditions, and disclose such information to the public in the context of an EIS by completing the Forest Plan Revision process.”

3) Comment: “PLEASE TAKE A HARD LOOK AT HOW CLIMATE CHANGE AFFECTS AND IS AFFECTED BY THIS PROJECT IN VIOLATION OF NEPA, NFMA, THE FOREST PAN AND THE APA.”

4) COMMENT: Published scientific reports indicate that climate change will be exacerbated by logging, and that climate change will lead to increased wildfire severity (including drier and warmer conditions that may render obsolete the proposed effects of the Project). The former indicates that the Elk Smith Project may have a significant adverse effect on the environment, and the latter undermines the central underlying purpose of the Project. Therefore, the Forest Service must candidly disclose,

consider, and fully discuss the published scientific papers discussing climate change in these two contexts. At least the Forest Service should discuss the following studies:”

Depro, Brooks M., Brian C. Murray, Ralph J. Alig, and Alyssa Shanks. 2008.

Public land, timber harvests, and climate mitigation: quantifying carbon sequestration potential on U.S. public timberlands. *Forest Ecology and Management* 255: 1122-1134.

Harmon, Mark E. 2001. Carbon sequestration in forests: addressing the scale question. *Journal of Forestry* 99:4: 24-29.

Harmon, Mark E, William K. Ferrell, and Jerry F. Franklin. 1990. Effects of carbon storage of conversion of old-growth forest to young forests. *Science* 247: 4943: 699-702

Harmon, Mark E, and Barbara Marks. 2002. Effects of silvicultural practices on carbon stores in Douglas-fir – western hemlock forests in the Pacific Northwest, USA: results from a simulation model. *Canadian Journal of Forest Research* 32: 863-877.

Homann, Peter S., Mark Harmon, Suzanne Remillard, and Erica A.H. Smithwick. 2005. What the soil reveals: potential total ecosystem C stores of the Pacific Northwest region, USA. *Forest Ecology and Management* 220: 270-283.

McKenzie, Donald, Ze'ev Gedalof, David L. Peterson, and Philip Mote. 2004. Climatic change, wildfire, and conservation. *Conservation Biology* 18:4: 890 -902.

5) Comment: “Please include an alternative which would implement prescribed fire fuels treatments that does not include removal of commercial wood products. Please include an alternative that considers the long-term cumulative impacts of its industrial logging on climate change.”

6) Comment: “This important consideration could lead land managers and policy makers to the conclusion that National Forest lands are more valuable to the national and global community as carbon sinks than as commercial tree farms.”

The Forest Service must analyze all of the cumulative the impacts of the Elk Smith project in an EIS. (Emphasis added)

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

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

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

The regulations shall include, but not be limited to-

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

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

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

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

(a) Resource protection. All management prescriptions shall—

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

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

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

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

In the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research findings, NEPA analysis and disclosure must address the

well-documented trend in post-fire regeneration failure. The project has already experienced difficulty restocking on areas that burned in the 1988 wildfire. NFMA (1982) regulation 36 CFR 219.27(c)(3) implements the NFMA statute, which requires adequate restocking in five years.

Given the forest's poor history of restocking success and its failure to employ the best available science, the adequacy of the site-specific and programmatic NEPA/NFMA process begs for further analysis and disclosure of the reality of worsening climate conditions which threaten – directly and cumulatively – to turn forest into non-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.”

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 climate risk (heat, drought, wind) and its symptoms, including wildfire, insect activity, and regeneration failure and mature tree mortality must be analyzed cumulatively.

The selected scientific research presented above is only a sampling of the growing body of evidence that supports the need to disclose the consequences of the proposed action in a proper context – a hotter forest environment, with more frequent drought cycles. This evidence brings into question the Purpose and Need for the project. It also requires the FS to reconsider the assumptions, goals and expected desired future condition expressed in the existing Forest Plan. Plan expectations must be amended at the programmatic level before proceeding with proposed project-level action(s). According to best available science, implementing the project will most likely accomplish the opposite of the desired future condition. We can adjust as we monitor and find out more. However, to willfully ignore what we do know and fail to disclose it to the public is a serious breach of public trust and an unconscionable act. Climate risk is upon us. A viable alternative to the proposal is not only reasonable and prudent, but it is the right thing to do.

We wrote in our comments:

*“JJ. Disclose when and how the Lewis and Clark National Forest made the decision to suppress natural wildfire in the Project area and replace natural fire with logging and prescribed burning;
KK. Disclose the cumulative impacts on the Forest-wide level of the Lewis and Clark National Forest’s*

policy decision to replace natural fire with logging and prescribed burning;

LL. Disclose how Project complies with the Roadless Rule;

MM. Disclose the impact of climate change on the efficacy of the proposed treatments;

NN. Disclose the impact of the proposed project on the carbon storage potential of the area;”

The Forest Service did not respond to our comments in violation of NEPA. The Forest Service did respond to another person’s comment about carbon storage by writing on page 238 of the EA: *“The importance of carbon storage capacity of the world’s forests is tied to their role globally in removing atmospheric carbon that is contributing to ongoing global warming.*

Meaningful and relevant conclusions on the effects of a relatively minor land management action, such as the Elk Smith Project on global greenhouse gas emissions or global climate change is neither possible nor warranted. Forests are in a continual flux, both emitting carbon into the atmosphere and removing it through photosynthesis. The proposed activities may alter the rates and timing of that flux within the individually-affected forest stands. However, these changes would be localized, miniscule in relation to the role the world’s forests play in climate change,

and indistinguishable from the effects of not taking action in the Elk Smith Project area. Therefore, this issue was not addressed further. For additional information, refer to the Forest Carbon Cycling and Storage Report (Doc. CC-01).”

The District Court of Montana ruled in Case 4:17-cv-00030-BMM that the Federal government did have to evaluate the climate change impacts of the federal government coal program. Please find the order attached to our first objection.

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

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

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

The project is in violation of NEPA, NFMA, the APA, the ESA for not examining the impacts of the project on climate change. The project will eliminate the forest in the project area. Forests absorb carbon. The project will destroy soils in the project area. Soils are carbon sinks.

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

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

ROB CHANEY rchaney@missoulian.com Mar 11, 2019

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

Courtesy Kim Davis

Fire-scarred forests like the Sapphire Range of the Bitterroot Valley may become grasslands because the growing seasons have become too hot and dry, according to new research from the University of Montana.

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

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

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

to see those predictions on the impact to ecosystems play out.”

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

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

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

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

“There used to be enough variability in seasonal conditions that seedlings could make it across these fixed thresholds,” Dobrowski said. “After the mid-‘90s, those windows have been closing more often. We’re worried we’ll lose these low-elevation forests to shrubs or grasslands. That’s what the evidence points to.”

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

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

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

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

The study also found that soil sterilization wasn’t a factor in tree regrowth, 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.

We wrote in our comments:

“Published scientific reports indicate that climate change will be exacerbated by logging, and that climate change will lead to increased wildfire severity (including drier and warmer conditions that may render obsolete the proposed effects of the Project). The former indicates that the Elk Smith Project may have a significant adverse effect on the environment, and the latter undermines the

central underlying purpose of the Project. Therefore, the Forest Service must candidly disclose, consider, and fully discuss the published scientific papers discussing climate change in these two contexts. At least the Forest Service should discuss the following studies:

•Depro, Brooks M., Brian C. Murray, Ralph J. Alig, and Alyssa Shanks. 2008. Public land, timber harvests, and climate mitigation: quantifying carbon sequestration potential on U.S. public timberlands. Forest Ecology and Management 255: 1122-1134.

•Harmon, Mark E. 2001. Carbon sequestration in forests: addressing the scale question. Journal of Forestry 99:4: 24-29.”

Please find Depro et al and Harmon attached to our first objection.

Please find attached to our first objection the paper by Davis et al. that the Missoulian refers to: “Wildfires and climate change push low-elevation forests across a critical climate threshold for tree regeneration

Kimberley T. Davis, Solomon Z. Dobrowski, Philip E. Higuera, Zachary A. Holden, Thomas T. Veblen, Monica T. Rother, Sean A. Parks, Anna Sala, and Marco P. Maneta”

“Abstract

Climate change is increasing fire activity in the western United States, which has the potential to accelerate climate-induced shifts in vegetation communities. Wildfire can catalyze vegetation change by killing adult trees that could otherwise persist in climate conditions no longer suitable for seedling establishment and survival. Recently documented declines in post-fire conifer recruitment in the western United States may be an example of this phenomenon. However, the role of annual climate variation and its interaction with long-term climate trends in driving these changes is poorly resolved. Here we examine the relationship between annual climate and post-fire tree regeneration of two dominant, low-elevation conifers (ponderosa pine and Douglas-fir) using annually resolved establishment dates from 2,935 destructively sampled trees from 33 wildfires across four regions in the western United States. We show that regeneration had a nonlinear response to annual climate conditions, with distinct thresholds for recruitment based on vapor pressure deficit, soil moisture, and maximum surface temperature. At dry sites across our study region, seasonal to annual climate conditions over the past 20 years have crossed these thresholds, such that conditions have become increasingly unsuitable for regeneration. High fire severity and low seed availability further reduced the probability of post-fire regeneration. Together, our results demonstrate that climate change combined with high severity fire is leading to increasingly fewer opportunities for seedlings to establish after wildfires and may lead to ecosystem transitions in low-elevation

ponderosa pine and Douglas-fir forests across the western United States.”

Because of climate change and lack of a seed source for new trees, the Elk Smith Project could result in the forest not growing back after the project is completed in violation of NEPA, the roadless rule and because the Forest Service did not analyze this the Elk Smith project is not following the best available science and in violation of NEPA, the ESA and the APA.

We wrote in our comments: “***Disclose the efficacy of the proposed activities at reducing wildfire risk and severity in the Project area in the future, including a two-year, five-year, ten-year, and 20-year projection;***”

The draft Decision Notice on page 2 states: “***As disclosed in environmental assessment, alternative 2 will address the purpose and need of this project by reducing fuels on 10,331 acres in the project area utilizing a combination of treatments. Treatments consist of hand-slashing small conifers (generally up to 16-feet in height) and prescribed burning (broadcast and jackpot). These proposed activities would reduce fuel loading, which will increase the potential to effectively manage, especially relative to personnel safety and financial costs, potential future wildfire within the project area and on lands immediately to the west.***”

Please see attached in our first objection the 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.”***

Pages 3-4 of the Draft Decision Notices states: ***“The purpose of the Elk Smith Project is to address fuel accumulation and continuity in the project area. More specifically, the purpose of the project was to:***

- Diminish the future risk of high-intensity, high-severity wildfire within the project area by interrupting the continuity of fuels, specifically continuous stands of lodgepole pine regeneration and heavy loadings of larger fuels;***

- Diminish the potential for wildfire to spread into the Benchmark corridor to the north and onto private land east of the National Forest boundary;*
- Recreate a diverse landscape that is more resilient to fire by retaining mature areas, disrupting dense areas, and enhancing or re-creating grassland openings; and*
- Increase flexibility to allow lightning-caused wildfire to play its natural role in adjacent lands and the nearby designated Scapegoat Wilderness.*

In addition to this primary purpose, specific units and treatments within the Elk Smith Project were proposed to address additional needs that have resulted from the accumulation of fuels within the project area. Secondary purposes are to:

- Protect culturally significant sites or areas;*
- Improve or protect several types of wildlife habitats from the threat of high-intensity wildfire;*
- Promote aspen regeneration in certain areas;*
- Protect and enhance existing white-bark pine stands;*
- Prevent increases in susceptibility of forest stands to mountain pine beetle or other infestations; and*
- Maintain or enhance Westslope cutthroat trout habitat or opportunities for habitat.*

Rationale by purpose and need statement:

Reduce the future risk of high-intensity, high-severity wildfire within the project area by interrupting the continuity of fuels, specifically continuous stands of lodgepole pine regeneration and heavy loadings of larger fuels:

Fire is an essential ecosystem component on the Rocky Mountain Ranger District. However, fuel accumulations in the project area, which is entirely within the perimeter of the 1988 Canyon Creek Fire, are increasing and with it, the potential for another large scale fire event.

Under current conditions, including but not limited to fuel moisture deficits, the fuel loading is such that both natural and human-caused wildfires have the potential to burn with high-intensity and spread rapidly onto private lands and into the wildland urban interface (EA page 40). Current conditions will limit effective management of any future wildfire events in the area, if left untreated.

The use of prescribed fire will provide the opportunity to diminish the potential intensity and severity of future wildfire in the project area. Thinning the dense regrowth of sapling tree stands and using prescribed fire will not only break up the continuity, but also the heavy accumulation of fallen snags that are left as a result of the 1988 fire (EA page 45).

In contrast to a wildfire, prescribed fire is accomplished under milder weather and increased fuel moisture,

conditions that burn with less intensity and slower rates of spread, as well as, generating less smoke. In addition, the prescribed fire treatments will serve to replicate the second entry of fire, which may diminish the occurrence of future fire starts becoming potential large-scale fire events within the project area.”

Page 5 of the Draft Decision Notice states:

“Improve or protect several types of wildlife habitats from the threat of high-intensity wildfire: The Elk Smith project comprises habitat for several wildlife species including the threatened grizzly bear and Canada lynx (EA page 129 through 136). Not taking action within the project area may leave a heightened risk of wildfire, which may affect habitat for species requiring some forested component for part or all of their biological needs. This project may limit the risk of wildfire related habitat loss especially on elk hiding cover, goshawk nesting habitat, and lynx multistory habitat that is currently low within the project area (EA page 137, 140, and 133 respectively). The project units were designed in a way that will substantially diminish the loss of mature timber stands to wildfire.”

The above paragraph is arbitrary and not supported by science or the EA.

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

“Management issues

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

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

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

In “Fire Ecology in Rocky Mountain Landscapes” by William Baker, Dr. Baker writes on page 435, “ ***...a prescribed fire regime that is too frequent can reduce species diversity (Laughlin and Grace 2006) and favor invasive species (M.A. Moritz and Odion 2004). Fire that is entirely low severity in ecosystems that historically experience some high-severity fire may not favor germination of fire-dependent species (M.A. Moritz and Odion 2004) or provide habitat key animals (Smucker, Hutto, and Steele 2005).***” Baker continues on page 436: ***“Fire rotations equal the average mean fire interval across a landscape and are appropriate intervals at which individual points or the whole landscape is burned. Composite fire intervals underestimate mean fire interval and fire rotation (chap 5) and should not be used as***

prescribed burning intervals as this would lead to too much fire and would likely lead to adversely affect biological diversity (Laughlin and Grace 2006)."

Please find (Laughlin and Grace 2006) attached in our first objection.

We wrote in our comments:

"The Forest Service should use the best available science regarding protecting these structures.

Fire Ecology in Rocky Mountain Landscapes, by William Baker says the Forest Service is over stating the frequency of wildfire. I have included this book as an attachment in my previous comments and incorporate it into these comments.

Dr. Baker writes that we use to think we could control wildfire with tools such as prescribed burns. He writes the science shows this is not true. All we can do is have the good sense to get our homes and infrastructure protected or out of fire prone settings, as fire will eventually come. This project attempts to tame wildlife, something Dr. Baker says is impossible. This project therefore violates NFMA by not following the best available science and not meeting the purpose and need of the project."

It is a violation of NEPA to not consider the best available science. We asked you to consider Baker's Fire Ecology in Rocky Mountain Landscapes and it is not even in your bibliography.

I am mailing Fire Ecology in Rocky Mountain Landscapes" by William Baker via U.S. mail. Please put the entire book in the project file.

Dr. Baker estimates the high severity fire rotation to be 135 - 280 years for lodgepole pine forests. (See page 162.).

Baker writes on page 457-458 of Fire Ecology in Rocky Mountain Landscapes: ***"Fire rotation has been estimated as about 275 years in the Rockies as a whole since 1980 and about 247 years in the northern Rockies over the last century, and both figures are near the middle between the low (140 years) and high (328 years) estimates for fire rotation for the Rockies under the HRV (chap. 10). These estimates suggest the since EuroAmerican settlement, fire control and other activities may have reduced fire somewhat in particular places, but a general syndrome of fire exclusion is lacking. Fire exclusion also does not accurately characterize the effects of land users on fire or match the pattern of change in area burned at the state level over the last century (fig 10.9). In contrast, fluctuation in drought linked to atmospheric conditions appear to match many state-level patterns in burned area over the last century. Land uses that also match fluctuations include logging, livestock grazing, roads and development, which have generally increased***

flammability and ignition at a time when the climate is warming and more fire is coming.”

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

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

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

Schoennagel et al (2004) states: “No evidence suggests that spruce–fir or lodgepole pine forests have experienced substantial shifts in stand structure over recent decades as a

result of fire suppression. Overall, variation in climate rather than in fuels appears to exert the largest influence on the size, timing, and severity of fires in subalpine 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 subalpine forests would not represent a restoration treatment but rather a departure from the natural range of variability in stand structure.”

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

Schoennagel et al (2004) states: “The Yellowstone fires in 1988 revealed that variation in fuel conditions, as measured by stand age and density, had only minimal influence on fire behavior. Therefore, we expect fuel-reduction

treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size, given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not re-store subalpine forests, because they were dense historically and have not changed significantly in response to fire suppression. Thus, fuel- reduction efforts in most Rocky Mountain subalpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure out-side the historic range of variability.”

Please find Schoennagel et al (2004) attached in our first objection.

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

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

Grizzly Bears.

We wrote in our scoping comments: “***Please complete the Endangered Species Act Section 7 consultation requirements for grizzly bears, wolverines, lynx and white bark pine.***”

The project area is in MS-1 grizzly bear habitat. Activities associated with treatments must be carried out between

July 1 and March 31 to avoid potential disturbance in spring habitat during its period of concentrated use.”

The Biological Assessment states on page 22, “***The Elk Smith Project area in general is not known to be heavily used by grizzly bears (W. Clark, personal communication 2016). The project area provides little habitat for grizzlies in its current condition as the dense forest does not provide foraging habitat, nor does it provide for travel or access to den sites. Although some sightings have occurred in the area, the generally thick, closed forest tends to favor use by black bears more than grizzly bears.***”

This is an arbitrary statement and is not backed up by science. Mr. Madden who lives in the project area has seen grizzly bears walk just tens of feet from his house up and down elk creek. He carries bear spray whenever he is hiking in the project area.

The Biological Assessment also states on page 22: “***Bears in the Northern Continental Divide ecosystem generally prefer to forage in areas with some type of cover nearby, and thrive in landscapes with numerous different habitat types (Aune and Kasworm 1989, Mace and others 1997, Waller and Mace 1997).***”

The above statement from the biological assessment described the project area. Page 24 of the BA states: “***Nearly all (98 percent, or over 760,000 acres) of the Rocky Mountain Ranger District is classified as Management Situation 1, which contains grizzly bear***

population centers and habitat key to species survival and recovery.”

Page 24 of the BA states: *“The National Forest System lands of the Scapegoat Subunit are almost entirely Management Situation 1, with only 3.4 acres of Management Situation 3.”*

Page 26 of the BA states: *“Under the proposed action, 18 percent (10,310 acres) of Management Situation 1 lands in the Scapegoat Subunit is proposed for treatment.”*

Page 25 of the BA states: *“There are 4,688 acres within treatment units on areas mapped generally as spring grizzly bear habitat in the Scapegoat Subunit, or approximately 11 percent of the spring habitat in the subunit (Table 5).”*

Page 26 of the BA states: *“This treatment would result in approximately 1,241 acres of openings in spring grizzly bear habitat and corresponding loss of available cover.”*

Page 28 of the BA states: *“Ten units (7,544 acres) within the proposed action require the use of aerial ignition. Based on past experience (Owen, personal communication 2016), one or two burn windows (1 to 3 consecutive days) occur each spring and one burn window occurs every other year in fall. When a suitable burn window occurs, one to four units would be treated with helicopter operation happening as follows:•Reconnaissance flight mid-morning to make sure*

public and livestock are clear of the area. •Ignition beginning 1200 hours or later with one or two helicopters; ending approximately 1700 hours. •Additional reconnaissance flight over next couple of hours to monitor. •Possibility of aviation resources used to control fire within unit boundaries for an additional 0 to 5 days.”

Page 27 of the BA states: “As discussed above, although the Interagency Grizzly Bear Committee Guidelines recommend avoiding managed burning in MS-1 spring habitat during spring, they recognize that at times this may be unavoidable (Interagency Grizzly Bear Committee Guidelines 1986, page 8). The Guidelines recommend that any activity occurring in these habitats during spring be “restricted in time and space to prevent significant disruptions of normal or expected grizzly activities.”

Page 27-27 of the B.A. states: “Prescribed burning that may occur in MS-1 spring habitat can occur only in areas that have not significantly greened up, in order to carry fire as needed to achieve treatment

Assessment objectives. It is unlikely that bears would be using these areas, as forage species are unlikely to be available in any quantity.”

Page 32 of the B.A. states: “Spring burning would occur prior to green up to limit impacts to wildlife, including spring grizzly bear habitat and calving/

fawning/lambing ranges. To prevent bears becoming food-conditioned and to minimize the risk of bear-human encounters and maximize both human and bear safety: •All personnel involved in project implementation would adhere to the Special Food Storage Order LC_10_D1_01 (or any successor orders) at all times. The following Resource Protection Measure is incorporated into the Elk Smith Project Environmental Assessment (Appendix B): To prevent bears becoming food-conditioned and to minimize the risk of bear-human encounters and maximize both human and bear safety:•Persons involved in project implementation are encouraged to work in groups of two or more, and to carry bear spray. Determination of EffectsI have determined implementation of the proposed Federal Action MAY AFFECT, AND IS LIKELY TO ADVERSELY AFFECT grizzly bears.”

The project area is in Management Situation 1. If there is a conflict between grizzly bears and a management decision in MS I habitat, the conflict needs to be resolved in favor of the grizzly. The Forest Service can't light fires until the snow melts. When the snow melts the area is by definition greening up.

In the attached to our first objection “***Guide to Effects Analysis of Helicopter Use in Grizzly Bear Habitat,***” the Montana/Idaho Level 1 Terrestrial Biologist Team

developed assessment guidelines in 2009 to assist in analyses of helicopter effects on grizzly bears.

The guidance document finds: “***Helicopter use in core habitat likely results in more pronounced disturbance reaction in grizzly bears since bears are not conditioned to expect disturbances from motorized equipment or vehicles in core habitat.***” In general, the guidance paper finds: “***actions which compromise the purpose of core habitat are not easily characterized as ‘insignificant’ or ‘discountable.’***”

The Forest Service states: “***Project activities in core areas (logging and road construction/use) would temporarily reduce the security that these areas provide grizzly bears and would result in disturbance and displacement. The direct effects of disturbance is expected to last for the life of the project activities (3-5 years for timber sales, up to 10 for prescribed fire).***”

The Forest Service Biological Assessment states: “***Use of helicopter ignition at low elevations (< 500 feet AGL) could cause grizzly bears to flee to cover or move away from the area.***”

The Biological Assessment states: “***Treatments during the spring could impact grizzly bear use of grassy, south facing openings while treatments in the fall could interfere with grizzly bear accessibility to fall foods such as berries.***”

Grizzly bears make “extensive use of forested cover,” including using forested habitat for resting, general

concealment, thermal relief in summer, and foraging and hunting.

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

The Forest Service's failure to disclose and demonstrate compliance with Forest Plan Appendix I requirements for grizzly bears violates NEPA, NFMA, and the APA.

Remedy: Consult with the FWS on the impact of using helicopters in MS 1 grizzly bear habitat and get a take permit or choose the No Action Alternative.

WOLVERINES

We wrote in our scoping comments: "Please complete the Endangered Species Act Section 7 consultation requirements for grizzly bears, wolverines, lynx and white bark pine."

We also wrote in our comments:

“THE AGENCIES MUST COMPLETE A BIOLOGICAL ASSESSMENT, BIOLOGICAL OPINION, INCIDENTAL TAKE STATEMENT, AND MANAGEMENT DIRECTION FOREST PLAN AMENDMENT FOR THE FOREST PLAN FOR THE WOLVERINE. The agencies do not have in place any forest plan biological assessment, biological opinion, incidental take

statement, and management direction amendment for wolverines.

***THE AGENCIES MUST CONDUCT ESA
CONSULTATION FOR THE
WOLVERINE.***

Wolverines may be present in the Project area. The Forest Service concedes that the Project “may affect” wolverines. The agencies’ failure to conduct ESA consultation for a species that may be present and may be affected by the Project violates the ESA. Wolverines are currently warranted for listing under the ESA. As the agencies are well aware, the scheduled, court ordered listing date for the wolverine is this year. In fact, FWS has recently filed the attached document in federal court committing to a January 18, 2013 listing date for the wolverine.

Accordingly, the wolverine will be listed under the ESA before the final decision is made to authorize and implement this Project, and long before any project activities commence. Regardless, even candidate species must be included in a biological assessment. The Forest Service’s biological assessment for the Project does not address wolverines. The Forest Service needs to do a supplemental EIS/ESA consultation that recognizes the wolverine as an ESA-listed species in the project area.

***THE AGENCIES MUST PREPARE REGIONAL
DIRECTION FOR THE
WOLVERINE.***

The agencies do not have in place any recovery plan and regional management direction amendment for wolverine.

Page 46 of the ROD says “The alternatives would not affect the ability of wolverines to move through the area and would not produce any barriers to wolverine movement. Impacts on winter foraging would be minimal. This is not based on the best available science and is a violation of NEPA, NFMA, the ESA and the APA.

Ruggiero et al 2000;

Wolverines generally scavenge for ungulates along valley bottoms and forage and den in remote, high-elevation areas (Hornocker and Hash 1981; Morgan and Copeland 1998). Thus if managers wished to provide habitat for wolverines, they could pay particular attention in the planning process to ungulates winter range and other aspects of habitat quality for ungulates to provide a consistent supply of carcasses for wolverine to scavenge. In addition, wolverines generally avoid areas of human activity. To limit the threat of human-caused disturbance or mortality, managers could restrict access to portions of the landscape where wolverines are most likely to occur.

Wolverine Ecology and Conservation in the Western United States, by Robert Michael Inman Faculty of Natural Resources and Agricultural Sciences Department of Ecology, Uppsala, 2013 wrote on page 26, “Wolverines selected areas of higher elevation, where there was steeper terrain, more snow, fewer roads, less human activity, and which were closer to high elevation talus, tree cover, and areas with April 1 snow cover.”

On page 29, Inman wrote, “While there is no indication that dispersal is currently being limited by human development in a manner that has negative consequences for the wolverine metapopulation, it is reasonable to assume that willingness to disperse through developed areas and/or survival of dispersers moving through developed areas would be impacted by increasing road and housing densities at some point.”

The Forest Service responded on page 5 of the B.A.
“Proposed species (wolverine *Gulo gulo luscus*) were addressed in a separate document covered under a programmatic consultation (USDA Forest Service 2014b, USDI Fish and Wildlife Service 2014b).”

The Forest Service did not prepare a biological assessment for wolverine for the project. Instead, the Forest Service produced regional guidance for all of the National Forests in Forest Service Region One/Northern Region that directs agency biologists not to provide an analysis of wolverine jeopardy in project biological

assessments, and not to provide any such analysis to FWS for a concurrence.

The Forest Service's failure to fully disclose available information to the public and take a hard look at potential effects of the Project on wolverines in the Project Environmental Assessment violates NEPA and the APA.

Please see the attached complaint we filed against the first Elk Smith decision.

In its Order dated 4/4/16, the U.S. District Court of Montana ruled: "The United States Fish & Wildlife Service's Withdrawal of its Proposed Rule to list the distinct population segment of the North American wolverine occurring in the contiguous United States as a threatened species under the Endangered Species Act, 79 Fed. Reg. 47,522 (Aug. 13, 2014), is hereby VACATED." Therefore the status of the wolverine is Proposed for listing under the ESA, and the FS must undergo formal consultation with the U.S. Fish & Wildlife Service.

Wolverines use habitat ranging from Douglas-fir and lodgepole pine forest to subalpine white-bark pine forest (Copeland et al., 2007). Lofroth (1997) in a study in British Columbia, found that wolverines use habitats as diverse as tundra and old-growth forest. Wolverines are also known to

use mid- to low-elevation Douglas-fir forests in the winter (USDA Forest Service, 1993).

Aubry, et al. 2007 note that wolverine range in the U.S. had contracted substantially by the mid- 1900s and that extirpations are likely due to human-caused mortality and low to nonexistent immigration rates.

May et al. (2006) cite: “Increased human development (e.g. houses, cabins, settlements and roads) and activity (e.g. recreation and husbandry) in once remote areas may thus cause reduced ability of wolverines to perform their daily activities unimpeded, making the habitat less optimal or causing wolverines to avoid the disturbed area (Landa & Skogland 1995, Landa et al. 2000a).”

Ruggiero, et al. (2007) state: “Many wolverine populations appear to be relatively small and isolated. Accordingly, empirical information on the landscape features that facilitate or impede immigration and emigration is critical for the conservation of this species.”

Ruggiero et al. (1994b) recognized that “Over most of its distribution, the primary mortality factor for the wolverines is trapping.” Those authors also state, “Transient wolverines likely play a key role in the maintenance of spatial organization and the colonization of vacant habitat. Factors that affect movements by transients may be important to population and distributional dynamics.”

Roads and human density are important factors influencing current wolverine distribution (Carroll et al. 2001b); and wolverine habitat selection is negatively correlated with human activity – including roads (Krebs et al. 2007). Wolverine occurrence has shown a negative relationship with road densities greater than 2.8 mi/mi² (1.7 km/km²) (Carroll et al. 2001b).

(T)he presence of roads can be directly implicated in human-caused mortality (trapping) of this species. Trapping was identified as the dominant factor affecting wolverine survival in a Montana study (Squires et al. 2007).

Krebs et al. (2007) state, “Human use, including winter recreation and the presence of roads, reduced habitat value for wolverines in our studies.”

Wisdom et al. (2000) state:

Carnivorous mammals such as marten, fisher, lynx, and wolverine are vulnerable to over- trapping (Bailey and others 1986, Banci 1994, Coulter 1966, Fortin and Cantin 1994, Hodgman and others 1994, Hornocker and Hash 1981, Jones 1991, Parker and others 1983, Thompson 1994, Witmer and others 1998), and over-trapping can be facilitated by road access (Bailey and others 1986, Hodgman and others 1994, Terra-Berns and others 1997, Witmer and others 1998).

...Snow-tracking and radio telemetry in Montana indicated that wolverines avoided recent burns (Hornocker and Hash 1981).

Copeland (1996) found that human disturbance near natal denning habitat resulted in immediate den abandonment but not kit abandonment. Disturbances that could affect wolverine are heli-skiing, snowmobiles, backcountry skiing, logging, hunting, and summer recreation (Copeland 1996, Hornocker and Hash 1981, ICBEMP1996f). Please find Hornocker attached to our first objection.

Carroll et al. (2001b) state:

The combination of large area requirements and low reproductive rate make the wolverine vulnerable to human-induced mortality and habitat alteration. Populations probably cannot sustain rates of human-induced mortality greater than 7–8%, lower than that documented in most studies of trapping mortality (Banci 1994, Weaver et al. 1996).

... (T)he present distribution of the wolverine, like that of the grizzly bear, may be more related to regions that escaped human settlement than to vegetation structure.

Wisdom et al. (2000) offered the following strategies:

- Provide large areas with low road density and minimal human disturbance for wolverine and lynx, especially where populations are known to occur. Manage human activities and road access to minimize human disturbance in areas of known populations.

- Manage wolverine and lynx in a metapopulation context, and provide adequate links among existing populations.
- Reduce human disturbances, particularly in areas with known or high potential for wolverine natal den sites (subalpine talus cirques).
- The EA fails to consider and use the best available science and fails to insure population viability in violation of NFMA and additionally, violating NEPA's requirements that the FS demonstrate scientific integrity. See 36 C.F.R. 219.3; 40 C.F.R. 1502.24. The FS fails to set meaningful thresholds and assumes that project-caused habitat losses are insignificant. Of such analyses, Schultz (2010) concludes that “the lack of management thresholds allows small portions of habitat to be eliminated incrementally without any signal when the loss of habitat might constitute a significant cumulative impact.” In the absence of meaningful thresholds of habitat loss and no monitoring of wolverine populations at the Forest level, projects will continue to degrade wolverine habitat across the Beaverhead-Deerlodge NF over time.

Remedy: Choose the No Action Alternative and consult

with the FWS on the impact of the project and on the Forest Plan on wolverines. THE AGENCIES MUST COMPLETE A BIOLOGICAL ASSESSMENT, Get a BIOLOGICAL OPINION from FWS, INCIDENTAL TAKE STATEMENT, AND MANAGEMENT DIRECTION FOREST PLAN AMENDMENT FOR THE FOREST PLAN FOR THE WOLVERINE.

LYNX.

We wrote in our comments:

“The Endangered Species Act requires the FS to insure that the Elk Smith 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 currently applied 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 National Forest. See NRLMD ROD,

Attachment 1, pages 2-3. 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 allowing 6% of lynx critical habitat to be destroyed forest-wide will not appreciably reduce the conservation value. Please consult with the USFWS on the NRLMD in lynx critical 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 critical 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.

On March 31, 2008 Gloria Manning, Reviewing Officer for the Chief, issued instructions to the Forest Service

regarding two of appellants' claims regarding the Northern Rockies Lynx Management Direction appeal.

Claim 1 in the appeal submitted by Friends of the Wild Swan, Alliance for the Wild Rockies and Friends of the Clearwater alleged that the Forest Service violated the National Environmental Policy Act and Administrative Procedures Act by selecting arbitrary criteria to determine whether habitat was occupied. Neither the FEIS nor the amended Conservation Agreement contains any justification for the criteria used to determine whether lynx occupy habitat on National Forests.

Ms. Manning reviewed the appeal record and "found no specific explanation for the selection of this date or indication of whether records of earlier sightings had been reviewed for their relevance or why those earlier records would not be otherwise considered in determining occupied lynx habitat."

She instructed the Forest Service to "provide documentation for the record that more fully describes the rationale for establishing that verified lynx observations or records since 1999, and not earlier, may be used as a basis for determining occupied lynx habitat. This documentation must be provided to all appellants. If the documentation was not in existence at the time the ROD was signed you will utilize Forest Service Handbook 1909.15, Chapter 18 to determine any subsequent actions that may be necessary as a result of this new

information."

Likewise in the Montanans for Multiple Use appeal Ms. Manning instructed the Forest Service "to supplement the FEIS with an analysis of the economic effects associated with commercial timber harvest, in accordance with NEPA regulations at 40 CFR 1502.9. Utilize Forest Service Handbook 1909.15, Chapter 18, to determine any subsequent actions that may be necessary as a result of the new information."

Because of instructions in the Northern Rockies Lynx Management Direction appeal decision the Forest Service is required to consult with the US Fish and Wildlife Service. This was not done in violation of the Endangered Species Act.

The LCNF 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 LCNF 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 LCNF 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 present 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. Therefore, these activities may contribute to a risk of adverse 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 affecting 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 Conservation 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 factors 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*
- *Fire exclusion that changes the vegetation mosaic maintained by natural disturbance processes*
- *Grazing by domestic livestock that reduces forage for lynx prey*
- *Roads and winter recreation trails that facilitate access to historical lynx habitat by competitors*

- *Legal (in Montana) and incidental trapping and shooting*
- *Predation*
- *Being hit by vehicles*
- *Obstructions to lynx movements such as highways and private land development*

As evidenced by the fact that the Canada lynx is now listed under the Endangered Species Act and has critical habitat in the project area, it is clear that the LCNF must do more than follow its Forest Plan's weak protections provided for lynx. Please demonstrate that the project and its analysis are consistent with all Standards contained in the Lynx Conservation and Assessment Strategy (LCAS) or lynx critical habitat.

What are the effects of logging on landscape pattern on lynx and lynx critical habitat? The LCAS require that the FS:

Maintain suitable acres and juxtaposition of lynx habitat through time. Design vegetation treatments to approximate historical landscape patterns and disturbance processes.

If the landscape has been fragmented by past management activities that reduced the quality of lynx habitat, adjust management practices to produce forest composition, structure, and patterns more similar to those that would have occurred under historical disturbance regimes.

The LCAS sets mandatory Standards that would modify or amend the Forest Plan—steps the LCNF has thus far not accomplished. Important Programmatic Standards include:

Identify key linkage areas that may be important in providing landscape connectivity within and between geographic areas, across all ownerships. (LCAS at 89.)

Develop and implement a plan to protect key linkage areas on federal lands from activities that would create barriers to movement.

Barriers could result from an accumulation of incremental projects, as opposed to any one project. (Id.)

Map and monitor the location and intensity of snow compacting activities that coincide with lynx habitat, to facilitate future evaluation of effects on lynx as information becomes available. (LCAS at 83.)

On federal lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU.

Among the standards set out in the LCAS are provisions to maintain denning habitat as discussed in the programmatic lynx BO:

Denning Habitat - Within developmental land allocations, existing Plan direction to maintain old growth habitat was judged to be adequate to provide for lynx denning habitat for all geographic areas except the Great Lakes. (BO at 31.)

However, the LCNF cannot meet lynx denning requirements unless it is meeting Forest Plan old-growth requirements. The Programmatic BA's analysis of the ability of the Forest Plans, as "amended" by the LCAS, to prevent a "taking" of the lynx is based upon the Forests' meeting such management standards. As the LCNF has not yet proved it is in compliance with old-growth species' viability standards or adequately dealing with forest wide old-growth declines, the project may not be in compliance with the LCAS.

The impacts of both winter and non-winter motorized route densities must be adequately considered. The LCAS states, "the effects of open road densities on lynx are poorly understood" (LCAS at 95).

It is not clear that the LCNF has a complete understanding of the current level of use of the project area for snowmobiles and other motorized recreational users. Please analyze the cumulative impacts on lynx

from the additional new roads, additional skid trails, and other logging access routes to be constructed in the project area—roads/access routes that could be used by snowmobilers snowmobiles and other motorized recreational users, snowshoers, and cross country skiers long after the logging activities have stopped. These roads/access routes can also impact lynx habitat during all seasons because of increased access for humans.

From Ruggiero, et al. (1999: “Lynx metapopulation dynamics operate at regional scales” (p. 24). There must be maps and adequate discussion of the connectivity issue in the EA, making it possible to see the landscape features that affect connectivity and metapopulation dynamics within and between LAUs both within and outside the project area, a goal of the LCAS mapping requirement.

The very existence of roads and compacted travel routes from motorized vehicles in snow adversely affect lynx because of the advantage provided for other predators that normally wouldn't be in portions of the project area in winter.

Any assumption that a project will not adversely impact the lynx simply because LCAS standards and guidelines are met has never been verified. These management guidelines are merely a guess for lynx management, developed by the FS and other government agencies. There has never been an independent scientific peer review of these guidelines, including by lynx experts such

as those who prepared the Ruggiero, et al. (1999) research paper upon which the LCAS is largely based.

The issue of providing for the larger landscape needs of far-ranging forest carnivores (including the grizzly bear, gray wolf, wolverine, fisher, pine marten, lynx, goshawk, etc.) reveals the need to utilize the principles of Conservation Biology on a landscape level. Core areas of relatively undisturbed habitats need to be maintained. Linkages with other core areas need to be established, providing sufficient habitat components so the linkages, or corridors, are functional for genetic interchange purposes. Both core areas and linkages should be the focus of the watershed rehabilitation and recovery discussed above (such as road removal). Buffer zones around core areas should also be recognized in their contribution to habitat needs for these wildlife species.

Please consult with the USFWS on the NRLMD in lynx critical habitat as ordered by the U.S. District Court in the Salix decision.
”

The Forest Service responded on page 249 of the EA:
“Impacts to lynx habitat were analyzed on pages 10-11 (Pages 126-127 of Preliminary Analysis), pages 18-19 (pages 134-135 of Preliminary analysis) and page 33. The proposed action would increase early stand initiation and other lynx habitat, and decrease stand initiation and stem

exclusion. The amount of mature, multi-story habitat would not be altered. The primary constituent elements of lynx critical habitat are boreal forest landscapes with a) snowshoe hare presence and habitat, b) deep fluffy snow, c) denning sites with coarse woody debris, and d) matrix habitat. The effects of the project on the primary constituent elements of critical habitat are described on pages 19-20 of the wildlife report (page 134-135 pf Preliminary Analysis)."

And of page 250 of the EA the Forest Service wrote: *"Per the NRLMD "Standard Veg S2 applies to all timber management projects..." (USDA Forest Service 2007) and the glossary states "timber management consists of growing, tending, commercially harvesting, and regenerating crops of trees" The Elk Smith project is not a timber management project. The purpose and need is to address fuel accumulation as described on page 7 of the Preliminary Analysis. Standard Veg S5 "applies to all pre-commercial thinning projects..." defined as mechanically removing trees to reduce stocking and concentrate growth on the remaining trees..." Although the standards do not apply, the effects of these actions (pre-commercial thinning and prescribed burning) on lynx habitat are analyzed (Wildlife report pages 18-19, Preliminary Analysis pages 134-135)."*

There is not an adequate regulatory mechanism to protect lynx and lynx critical habitat if there is no restriction on burning lynx critical habitat. The project is therefore in

violation of NEPA, NFMA, the APA and the ESA. The draft decision is arbitrary.

The Forest Service's misrepresentations to the public, failure to use the Forest Plan Lynx Amendment definition of wildl and urban interface, and failure to establish compliance with Lynx Amendment standards VEGS2 and VEGS5, violates NEPA, NFMA, and the APA.

Please see the attached paper titled: "Management of forests and forest carnivores: Relating landscape mosaics to habitat quality of Canada lynx at their range periphery" by Holbrook et al. 2019. It states that all lynx habitat has to be monitored for lynx. The EA states that only about half of the project was monitored for lynx. This is a violation of NEPA, NFMA, the APA and the ESA.

The Forest Service's use of an incorrect WUI violates the Lynx Amendment and NFMA. Without the WUI exemption, the Project violates the Lynx Amendment and NFMA. The Forest Service's misrepresentations to the public that it was applying the Tri-County WUI and that "the majority of the Project Area is identified as Wildland Urban Interface

(WUI) in the Tri-County Regional Community Wildfire Protection Plan (CWPP)”violate NEPA and the APA.

Remedy: Monitor the whole project area for lynx and then Consult with the FWS on the NRLMD with respect to prescribed burning in lynx critical habitat. The Forest Service must prepare a supplemental NEPA analysis for the Project that applies the correct WUI. In the new analysis, theForest Service must reassess the application of the Lynx Amendment standards to the Project.

We wrote in our comments:

“ECONOMICS

NFMA and the Forest and Rangeland Renewable Resources Planning Act (RPA) require management of national forest system lands in a manner that "maximizes long term net public benefits" [36 CFR 219.1(a)]. The Forest Service's planning regulations have defined the term "net public benefits" as the "overall value of positive effects (benefits) less all associated inputs and negative effects (costs)." NFMA requires a sophisticated consideration of benefits and costs, including use of both market and non-market methods of determining existing and future resource values, methods to determine opportunity costs, and use of best available quantitative and qualitative techniques [(36 CFR 219.12(e); 219.12(f)2; 219.1(b)12]. How will the Elk Smith project

satisfy the monitoring requirements of the Forest Plan or NFMA?

In a May 1, 2003 report, GAO-03-503 Forest Service: Little Progress on Performance Accountability Likely Unless Management Addresses Key Challenges sent to Congress and the Honorable Scott McInnis, Chairman of the subcommittee on Forest Health, Barry Hill, Director of Natural Resources and Environment at the General Accounting Office, reported “the Forest Service has not been able to provide to Congress and the public with a clear understanding of what its 30,000 employees accomplish with the approximately \$5 billion it received every year.”

Please comply with 36 C.F.R. § 219.27 (a) (7) which requires the Forest Service prior to project implementation to access for potential physical, biological, aesthetic, cultural, engineering, and economic impacts and for consistency with multiple uses planned for the general area and 36 CFR 219.12 (3) which requires documentation of costs associated with carrying out the planned management prescriptions as compared with costs estimated in the forest plan.”

Other commenters wrote and the Forest Service responded on page 242-244 of the EA:

“Commenter: Fort Shaw Irrigation District Comment 1: The Fort Shaw Irrigation District (FSID) adamantly opposes the Forest Service's Elk Smith Project at this time

until several items of interest that affect the wellbeing of the FSID water users can be resolved. Although FSID does support some prescribed burns to reduce the chances of catastrophic fires, the Elk Smith project does not take into consideration the major economic benefit agriculture has to the entire Sun River Watershed. Forest Service Response: The RMRD recognizes water is vital to irrigation for agriculture purposes. However, the watershed report discussion of water yield (pg 19) acknowledges that an increase in water yield could occur after prescribed fires due to diminished ground cover. Research has shown that at least 25 percent of a watershed would have to be treated to show any measurable increase in runoff. The timing of runoff was not discussed. However,

*Elk Smith Project Environmental Assessment*243
approximately 23 to 24 percent of the Elk Smith and the Upper Smith Creek drainages are proposed to be treated. The project would occur over a 10 year period, therefore 2 to 5 percent of the watersheds would be treated in any given year. Therefore, the watershed analysis has shown that there is a low probability there will be a measurable change in water yield and difficult to determine. Therefore, the change in timing of the runoff as a result of the project would also be indeterminable. The level of prescribed fire according to watershed analysis indicates available flows should not substantially change. Comment 2: As part of consultation with other government agencies in the Sun River Watershed, the Forest Service never

consulted with the FSID or any other agriculture group on how a project of this magnitude would impact water supply for FSID and its water users over the long-term. In the F.S. planning document it even describes how they met with a hunting group to get their concurrence which FSID does not understand why F.S. did not do the same for another government agency like FSID. Forest Service Response: A public meeting was held in Augusta on May 6, 2016 which all interested parties could attend. And the RMRD personnel were indeed invited by a local area conservation group called, the Sun River Wildlife Team, to present the same information provided during the initial public meeting regarding the Elk/Smith proposal. The RMRD can make similar presentations to other groups when feasible. The presentations did not seek to acquire concurrence from any conservation groups or other entities, as that is not required in accordance with NEPA. Comment 3: In the Soil and Water section, FSID could not find anywhere there was a review of possible long-term impacts to water supply for agriculture use which is a key economic benefit to this region. Forest Service Response: The Watershed Report discussion of water yield (pg 19) acknowledges that an increased in water yield could occur after prescribed fires due to diminished ground cover. Research has shown that at least 25 percent of a watershed would have to be treated to show any measurable increase in runoff. The timing of runoff was not discussed. However, approximately 23 to 24 percent of the Elk Smith and the Upper Smith Creek drainages are proposed to be treated. The project would

occur over a 10 year period, therefore 2 to 5 percent of the watersheds would be treated in any given year. Therefore, the watershed analysis has shown that there is a low probability there will be a measurable change in water yield and difficult to determine. Therefore, the change in timing of the runoff as a result of the project would also be indeterminable. Comment 4: In the Land Uses management section, again it does not address the possible long-term impacts to water supply for agriculture use which is a key economic benefit to this region. Forest Service Response: The level of prescribed fire according to the watershed analysis indicates available flow will not substantially change. This is emphasized quite well as a result of the more than likely 10 year time period to fully implement the prescribed fire activities according to prescriptions. As previously indicated, changes in flow should not be measurable and therefore impact economics of water availability. See watershed report page 19 in the project record.

Elk Smith Project Environmental Assessment 244

Comment 5: Will this project over the long-term actually reduce the long-term risks of catastrophic fires in this region? With this mind-set, then there will need to be the same type of projects throughout the nation on a reoccurring basis. How will this impact the quantity and timing of the annual snowmelt that FSID so depends upon for survival. This type of large scale burning when the trees have not become mature yet does not make sense since some old growth trees is essential to a healthy

watershed Forest Service Response: The Watershed Report discussion of water yield (pg 19) acknowledges that an increased in water yield could occur after prescribed fires due to diminished ground cover. Research has shown that at least 25 percent of a watershed would have to be treated to show any measurable increase in runoff. The timing of runoff was not discussed. However, approximately 23 to 24 percent of the Elk Smith and the Upper Smith Creek drainages are proposed to be treated. The project would occur over a 10 year period, therefore 2 to 5 percent of the watersheds would be treated in any given year. Therefore, the watershed analysis has shown that there is a low probability there will be a measurable change in water yield and difficult to determine. Therefore, the change in timing of the runoff as a result of the project would also be indeterminable. Comment 6: As FSID reviews the entire document, there is no mention of agriculture benefits or impacts which is just as important as wildlife, fisheries, aesthetics, plant diversity, or any other benefit mentioned in the plan. Forest Service Response: The Elk Smith project was looked at from a number of resource areas, the range resource section does discuss the direct, indirect and cumulative impacts of the proposed treatment units on permitted livestock. The level of prescribed fire planned for ignition according to the watershed analysis indicates available flows should not substantially change, and hence not impede other agriculture land uses outside of the NFS lands.”

The project is in violation of NFMA, NEPA and the APA for not doing a full economic analysis. Elk creek has flooded the last two years. Please find the attached article in our first objection, titled “***Waters rise in Augusta, flood warnings sound in north-central Montana***” from the May 27, 2019 Helena Independent Record.

The Elk Smith project will result in more water flowing down Elk Creek in the spring and less in the late summer when irrigators need it.

Remedy: Choose the No Action Alternative or write an EIS that analysis the full economic impact of the project.

We wrote I our comments:

“Unroaded lands

It is well established that logging in an uninventoried and inventoried roadless areas is an irreversible and irretrievable” commitment of resources that “could have serious environmental consequences” Smith v. U.S. Forest Service, 33 F.3d 1072, 1078 (9th Cir. 1994). Please address the effects of logging and roading the uninventoried roadless areas on their characteristics vis-à-vis potential for future wilderness or inventoried roadless area designation. The discussion of the impacts on unroaded areas was superficial. There was no analysis of the project’s impact on the unique values of unroaded areas together with their adjacent inventoried roadless areas. The EIS should satisfy the “hard look”

requirement with respect to the environmental impact of logging and roading uninventoried roadless areas.”

The Forest Service responded on page 248 of the EA:

“The Roadless/Visuals report considers the effects of the proposed action on the Wilderness Attributes and Roadless Characteristics within the Inventoried Roadless Areas the overlap the project area boundary. Please see this report for further details. In addition, both the Fuels and Silvicultural specialist reports discuss the existing condition of the timber stands within the project area. The purpose and need of the project discusses why there is a need for action within the Elk Smith project area.”

The Forest Service also wrote on page 24 of the EA:

“Roadless Rule, 2001 Regional Foresters will review the following activities:

a) Any necessary timber cutting or removal or any road construction or road reconstruction in emergency situations involving wildfire suppression, search and rescue operations, or other imminent threats to public health and safety in inventoried roadless areas.

b) Timber cutting, sale, or removal in inventoried roadless areas incidental to the implementation of an existing special use authorization. Road construction or road

reconstruction is not authorized through this re-delegation without further project specific review.

c)The cutting, sale, or removal of generally small diameter timber when needed for one of the following purposes:

1.To improve threatened, endangered, proposed, or sensitive species habitat;

2.To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period; or,

3.For the administrative and personal use, as provided for in 36 Code of Federal Regulations 223, where personal use includes activities such as Christmas tree and firewood cutting and where administrative use includes providing materials for activities such as construction of trails, footbridges, and fences.”

The Forest Service misrepresentation in the EA that the Project area has “the greatest departures from historical conditions,” and has “significantly departed from historic natural conditions,” and its reliance on that false premise to authorize tree cutting in an Inventoried Roadless Area, violates NEPA, the APA, and the Roadless Rule.

The project is harming habitat for threatened and proposed species and there is not a risk of uncharacteristic wildfire effects since the area burned in 1988.

The Project allows tree-cutting in an Inventoried Roadless Area in Units 1, 2, 7, 9, and 11, for a total of 2,787 acres.

Exception (b)(1) allows timber sales to go forward if they are generally limited to small diameter trees. However, this (b)(1) exception notably appears to contradict maintaining roadless characteristics, as it allows the very activity that the Forest Service also states is likely to degrade roadless characteristics. Nonetheless, in enumerating these exceptions, the Forest Service explicitly noted that the “cutting, sale, or removal of timber in these areas is expected to be infrequent.” (Roadless Area Conservation Rule, 66 Fed. Reg. 3,244, 3,273 (Jan. 12, 2001) (§ 294.13(b)).)

The roadless areas in the project area would be designated as wilderness under the Northern Rockies Ecosystem Protection Act, H.R. 1321: <https://www.congress.gov/bill/116th-congress/house-bill/1321?q=%7B%22search%22%3A%5B%22Northern+Rockies+Ecosystem+Protection+Act%22%5D%7D&s=1&r=2>

and S. 828:

<https://www.congress.gov/bill/116th-congress/senate-bill/827?q=%7B%22search%22%3A%5B%22Northern+Rockies+Ecosystem+Protection+Act%22%5D%7D&s=1&r=1>

Please see the attached “*The Roadless Report*” in our first objection to the Elk Smith project.

Remedy: Choose the No Action Alternative or fully analyze as the law requires with an EIS the wilderness characteristics of the project area and if the proposed action would alter these wilderness characteristics.

We wrote in our comments:

“Weeds

Native plants are the foundation upon which the ecosystems of the Forest are built, providing forage and shelter for all native wildlife, bird and insect species, supporting the natural processes of the landscape, and providing the context within which the public find recreational and spiritual opportunities. All these uses or values of land are hindered or lost by conversion of native vegetation to invasive and noxious plants. The ecological threats posed by noxious weed infestations are so great that a former chief of the Forest Service called the invasion of noxious weeds “devastating” and a “biological disaster.”

Despite implementation of Forest Service “best management practices” (BMPs), noxious weed infestation on the Forest is getting worse and noxious weeds will likely overtake native plant populations if introduced into areas that are not yet infested. The Forest Service has recognized that the effects of noxious weed invasions may be irreversible. Even if weeds are eliminated with herbicide treatment, they may be replaced by other weeds, not by native plant species.

Invasive plant species, also called noxious weeds, are one of the greatest modern threats to biodiversity on earth. Noxious weeds cause harm because they displace native plants, resulting in a loss of diversity and a change in the structure of a plant community. By removing native vegetative cover, invasive plants like knapweed may increase sediment yield and surface runoff in an ecosystem. As well knapweed may alter organic matter distribution and nutrient through a greater ability to uptake phosphorus over some native species in grasslands. Weed colonization can alter fire behavior by increasing flammability: for example, cheatgrass, a widespread noxious weed on the Forest, cures early and leads to more frequent burning. Weed colonization can also deplete soil nutrients and change the physical structure of soils.

The Forest Service's own management activities are largely responsible for noxious weed infestations; in particular, logging, prescribed burns, and road construction and use create a risk of weed infestations. The introduction of logging equipment into the Forest creates and exacerbates noxious weed infestations. The removal of trees through logging can also facilitate the establishment of noxious weed infestations because of soil disturbance and the reduction of canopy closure. In general, noxious weeds occur in old clearcuts and forest openings, but are rare in mature and old growth forests. Roads are often the first place new invader weeds are introduced. Vehicle traffic and soil disturbances from road construction and maintenance create ideal establishment conditions for weeds. Roads also provide obvious dispersal corridors. Roadsides throughout the project area are infested with noxious weeds. Once established along roadsides, invasive plants will likely spread into adjacent grasslands and forest openings.

Prescribed burning activities within the analysis area would likely cumulatively contribute to increases to noxious weed distribution and populations. As a disturbance process, fire has the potential to greatly

exacerbate infestations of certain noxious weed species, depending on burn severity and habitat type (Fire Effects Information System 2004). Soil disturbance, such as that resulting from low and moderate burn severities from prescribed fire and fire suppression related disturbances (dozer lines, drop spots, etc.), provide optimum conditions for noxious weed invasion. Dry site vegetation types and road corridors are extremely vulnerable, especially where recent ground disturbance (timber management, road construction) has occurred. Units proposed for burning within project area may have closed forest service access roads (jammers) located within units. These units have the highest potential for noxious weed infestation and exacerbation through fire activities. Please provide an alternative that eliminates units that have noxious weeds present on roads within units from fire management proposals in violation of NFMA and NEPA.

Please address the ecological, social and ascetic impact of current noxious weed infestations within the project area. Include an analysis of the impact of the actions proposed by this project on the long and short term spread of current and new noxious weed infestations. What treatment methods will be used to address growing noxious weed problems? What noxious weeds are currently and historically found within the project area? Please include a map of current noxious weed infestations which includes knapweed, Saint Johnswort, cheat grass, bull thistle, Canada thistle, hawkweed, hound's-tongue, oxeye daisy and all other Category 1,

Category 2 and Category 3 weeds classified as noxious in the MONTANA COUNTY NOXIOUS WEED LIST.

State-listed Category 2 noxious weed species yellow and orange hawkweeds are recently established (within the last 5 to 10 years) in Montana and are rapidly expanding in established areas. They can invade undisturbed areas where native plant communities are intact. These species can persist in shaded conditions and often grow underneath shrubs making eradication very difficult. Their stoloniferous (growing at the surface or below ground) habit can create dense mats that can persist and spread to densities of 3500 plants per square mile (Thomas and Dale 1975).

Please address the cumulative, direct and indirect effects of the proposed project on weed introduction, spread and persistence that includes how weed infestations have been and will be influenced by the following management actions: road construction including new permanent and temporary roads, and skid trails proposed within this project; opening and decommissioning of roads represented on forest service maps; ground disturbance and traffic on forest service template roads, mining access routes, and private roads; removal of trees through commercial and pre-commercial logging and understory thinning; and prescribed burns. Please discuss what open, gated, and decommissioned Forest Service roads within the

project area proposed as haul routes have existent noxious weed populations and what methods will be used to assure that noxious weeds are not spread into the proposed action units.

Noxious weeds are not eradicated with single herbicide treatments. A onetime application may kill an individual plant but dormant seeds in the ground can still sprout after herbicide treatment. Thus, herbicides must be used on consistent, repetitive schedules to be effective.

Please show in the EIS a commitment to a long-term, consistent strategy of application is being proposed for each weed infested area within the proposed action area in violation of NEPA and NFMA. Please discuss what long term monitoring of weed populations is proposed.

When areas treated with herbicides are reseeded on national forest land, they are usually reseeded with exotic grasses, not native plant species.

Please discuss what native plant restoration activities will be implemented in areas disturbed by the actions proposed in this project. Please discuss howl disturbed areas including road corridors, skid trails, and burn units be planted or reseeded with native plant species.

The scientific and managerial consensus is that prevention is the most effective way to manage noxious weeds. The Forest Service concedes that preventing the introduction of weeds into uninfested areas is “the most critical component of a weed management program.” The Forest Service’s national management strategy for noxious weeds also recommends “develop[ing] and implement[ing] forest plan standards” and recognizes that the cheapest and most effective solution is prevention. Please discuss which units within the project area currently have no noxious weed populations within their boundaries or what minimum standards are in the Lewis and Clark National Forest Plan to address noxious weed infestations. Please include an alternative in the that includes land management standards that will prevent new weed infestations by addressing the causes of weed infestation. The failure to include preventive standards would violate NFMA because the Forest Service is not ensuring the protection of soils and native plant communities. Additionally, the omission of an alternative that includes preventive measures would violate NEPA because the Forest Service failed to consider a reasonable alternative.”

The Forest Service responded on page 232 of the EA:

“We share your concern for noxious weeds, however Forest Service funding is outside the scope of this analysis. Please, see the summary under the Noxious Weed Report, on bottom of page 78 and top of page 79, of the Elk Smith Preliminary Analysis. Additionally, specific Project Design Features to reduce the potential for noxious weed introduction and spread are included in Appendix C, on page 169, of the Elk Smith Preliminary Analysis.”

Prescribed burning activities within the analysis area would likely cumulatively contribute to increases to noxious weed distribution and populations. As a disturbance process, fire has the potential to greatly exacerbate infestations of certain noxious weed species, depending on burn severity and habitat type (Fire Effects Information System 2004). Soil disturbance, such as that resulting from low and moderate burn severities from prescribed fire and fire suppression related disturbances (dozer lines, drop spots, etc.), provide optimum conditions for noxious weed invasion. Dry site vegetation types and road corridors are extremely vulnerable, especially where recent ground disturbance (timber management, road construction) has occurred. Units proposed for burning within project area may have closed forest service access roads (jammers) located within units. These units have the highest potential for noxious weed infestation and exacerbation through fire activities. Please provide an alternative that eliminates units that have noxious weeds present on roads within units from fire management proposals.

The project is in violation of NFMA, NEPA, the ESA and the APA for failing to consider a reasonable alternative to prevent weeds and the Forest Service is not ensuring the protection of soils and native plant communities and lynx critical habitat.

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

We wrote in our comments;

“Disclose the amount of big game (moose and elk) hiding cover, winter range, and security currently available in the area;

Disclose the amount of big game (moose and elk) hiding cover, winter range, and security during Project implementation;

Disclose the amount of big game (moose and elk) hiding cover, winter range, and security after implementation;

Disclose the method used to determine big game hiding cover, winter range, and security, and its rate of error as determined by field review; ”

The EA states on page 144: ***“The Helena-Lewis and Clark National Forest, Rocky Mountain District, manages this roadless area, which provides habitat for many wildlife species including, grizzly bear, black bear, cougar, lynx, fisher, marten, elk, whitetail and mule deer, wolf, moose, mountain goat, and bighorn sheep. The higher elevations***

provide important summer range habitat for big game species.”

The EA also states on page 182:

“A big game cover analysis was completed. Analysis results are found in Appendix A Section 5. The proposed action results in 31.1 to 59.9 percent hiding cover in the affected watersheds. This meets the Forest Plan standard of 30 percent effective hiding cover.”

The EA does not disclose the number of

moose required for a viable population, nor does it disclose the numbers of those species that currently exist across the Forest. This is a violation of NEPA, NFMA and the APA.

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

CONCLUSION

The remedy is to choose the No Action Alternative or prepare a legally valid EIS, comply with all NEPA, NHPA ESA, APA, Roadless Rule, Forest Plan and NFMA requirements noted herein.

Pursuant to 36 CFR Part 218, and the APA, the Regional Office must respond to each of the above issues. As shown above, the DN/FONSI and EA must be overturned and vacated and the project cannot be approved as currently re- viewed and proposed.

Thank you for your attention to these concerns.

Sincerely yours,

Michael Garrity (Lead Objector)
Alliance for the Wild Rockies
P.O. Box 505

Helena, Montana 59624

406-459-5936

And for

Native Ecosystems Council

P.O. Box 125

Willow Creek, MT 59760

and for

Steve Kelly
Montana Ecosystems Defense Council

P.O. Box 4641
Bozeman, MT 59772

And for

William Madden

12129 Elk Creek Road

Augusta 59410

Mailing address:

William Madden

P.O. Box 523

Augusta, MT 59410

