

August 7, 2023, Via Email

Objection against the Draft Decision Notice (DDN), FON-SI, and Environmental Assessment for the Selway Saginaw Vegetation Management Project, Forest Service, Beaver-head-Deerlodge National Forest, Dillon and Wisdom Ranger Districts.

Identification of Objectors:

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

PO Box 505

Helena, MT 59624;

Phone [406-459-5936](tel:406-459-5936)

And for

Sara Johnson

Native Ecosystems Council

P.O. Box 125
Willow Creek MT 59760.

Signed for Objectors this 7th day of August 2023

/s/ Michael Garrity

Michael Garrity

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

The Responsible Officials for the project is the Dillon District Ranger, Jamie Tripp and the Wisdom District Ranger Kristen Thompson. The Selway Saginaw Vegetation Management Project is located on the Wisdom and Dillon ranger districts of the Beaverhead-Deerlodge National Forest in Beaverhead County, Montana on National Forest System lands managed by the USDA Forest Service. The project proposes regeneration commercial logging (clearcutting) on approximately 4,181 acres as described in the proposed action. 19.7 miles of new roads will be built.

Additionally, the decision authorizes pre-commercial logging on approximately 2,156 acres.. Conifer removal on up to 2,801 acres will also occur. This includes approximately 100 acres of conifer logging within the Tash Peak Inventoried Roadless Area.

Description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project if applicable, how the objector believes the environmental analysis, Finding of No Significant Impact, and Draft Decision Notice (DDN) specifically violates law, regulation, or policy: The EA and DND are contained in the USFS webpage at: <https://www.fs.usda.gov/project/bdnf/?project=56912>

Rangers Tripp and Thompson selected the proposed Alternative (proposed action) as described in the EA starting on page 16 with one modification: “We are also choosing to defer a decision on the 2,417 acres of intermediate commercial harvest at this time. By dropping these acres, we will not be treating old growth. This decision would not preclude future decisions on the management of these stands.”

As a result of the Draft DN, individuals and members of the above mentioned groups (Alliance) would be directly and

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

1. Objectors names and addresses:

Lead Objector Mike Garrity, Executive Director, Alliance for the Wild Rockies
P.O. Box 505; Helena, MT 59624
Phone 406 459-5936

And for

Sara Johnson

Native Ecosystems Council

P.O. Box 125

Willow Creek, MT 59760

2. Signature of Lead Objector:

Signed this 7th day of August 2023 by Lead Objector,

/s/ Michael Garrity

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

4. Name of the Proposed Project, Responsible Official, National Forest and Ranger District where Project is: Selway-Saginaw Vegetation Management Project; Beaverhead-Deerlodge National Forest (BDNF) Dillon District Ranger, Jamie Tripp and the Wisdom District Ranger Kristen Thompson are the Responsible Officials; The Selway-Saginaw Vegetation Management Project area The project area is administered by the Dillon and Wisdom ranger districts on the Beaverhead-Deerlodge National Forest. It is located entirely within Beaverhead County, southwest of Wisdom

and west of Dillon, Montana as shown on Figure 1 of the EA.

The entire Selway Saginaw Vegetation Management project area includes 66,884-acres. Within the project area the Forest proposes a variety of logging, burning and road building. Details are provided in the Proposed Action section below and Figure 2

Maps on the EA display the vicinity of the project area in the Lima Tendoy and Big Hole landscapes and its relationship to three management areas. The Horse Prairie North and Selway-Saginaw management areas are in the Lima-Tendoy Landscape, and West Big Hole Flats management area is in the Big Hole Landscape. Please refer to the Forest Plan Chapter 4 for specific information(U.S. Department of Agriculture 2009).

Dillon District Ranger, Jamie Tripp and the Wisdom District Ranger Kristen Thompson chose the proposed or selected alternative in the Draft Decision Notice and FONSI.

NOTICE IS HEREBY GIVEN that Alliance objects pursuant to 36 CFR section 218 to the Responsible Official's adoption of the selected Alternative. As discussed below, the Selway Saginaw Vegetation Management Project as proposed violates the National Environmental Policy Act

(NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Beaverhead-Deerlodge Forest Plan and the Administrative Procedure Act (APA).

Location

The entire Selway Saginaw Vegetation Management project area includes 66,884-acres. Within the project area the Forest proposes a variety of logging, burning and road building. Details are provided in the Proposed Action section below and Figure 2

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Maps on the EA display the vicinity of the project area in the Lima Tendoy and Big Hole landscapes and its relationship to three management areas. The Horse Prairie North and Selway-Saginaw management areas are in the Lima-Tendoy Landscape, and West Big Hole Flats management area is in the Big Hole Landscape. Please refer to the Forest Plan Chapter 4 for specific information (U.S. Department of Agriculture 2009).

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

Thank you for the opportunity to object on the Selway Saginaw Vegetation Management Project. Please accept this objection from me on behalf of the Alliance for the Wild Rockies and Native Ecosystems Council, collectively (Alliance).

6. Suggested Remedies that would Resolve the Objection:

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

7. Supporting Reasons for the Reviewing Office to Consider:

This landscape has very high wildlife values, including for the threatened grizzly bear, lynx, wolverine, whitebark pine, big game species, sage grouse, sagebrush and wildlife dependent upon unlogged forests. The project area will be concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as lynx, grizzly bears, and wolverine. The agency will also be exacerbating an ongoing problem of displacing elk to adjacent private lands in the hunting season due to a lack

of security on public lands. The public interest is not being served by this project.

Suggested Remedies to Resolve the Objection:

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

Thank you for the opportunity to object.

NOTICE IS HEREBY GIVEN that, pursuant to 36 CFR Part 218, Alliance objects to the Draft Decision Notice (DDN) and Finding of No Significant Impact (FONSI) with the legal notice published on June 23, 2023, including the Responsible Official’s adoption of proposed or selected Alternative.

Alliance is objecting to this project on the grounds that implementation of the Selected Alternative is not in accordance with the laws governing management of the national forests such as the ESA, NEPA, NFMA, the Beaverhead-Deerlodge National Forest (BDNF) Forest Plan and the APA, including the implementing regulations of these and other laws, and will result in additional degradation in already degraded watersheds and mountain slopes, further upsetting the wildlife habitat, ecosystem and human communities. Our objections are detailed below.

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

would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

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

Roadless Rule

We wrote in our comments:

The Proposed Action is a Violation of the Roadless Area Conservation Rule.

Although the majority of the slashing and burning planned for this project will occur outside of the Inventoried Roadless Area (IRA) lands located in the Project, the 900 acres that will occur within an IRA is a violation of the Roadless Area Conservation Rule (RACR). The agency clearly shows that this proposed slashing and burning is just a standard management practice, as many such treatment acres are planned outside IRAs. The agency needs to clearly define what wildlife species are lacking suitable habitat within these proposed treatment areas, how this was determined, and the data and/or published science that shows that burning of trees and sagebrush will restore habitat for these species, including

many Montana Species of Concern and big game species as well.

Forest Service response:

Of the 2,801 acres proposed for conifer reduction, just 100 of those acres are proposed within the Tash IRA. This action would occur on only 0.2 percent of the entire Tash Peak IRA. The Deputy Regional Forester reviewed and approved this action based on the Roadless Area Conservation Rule exceptions. These actions meet the criteria for exception 36 CFR subpart B 294.13(b)(1)(ii) to maintain or restore 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. Please see the Wildlife Analysis on the project web page under the Supporting tab and summarized in the final environmental assessment for effects determinations related to wildlife and proposed conifer reductions treatments.

The Roadless Report states:

For the purposes of the Selway Saginaw project, timber cutting or removal in inventoried roadless areas would be incidental to the implementation of conifer reduction in sagebrush communities. Trees would be removed by a combination of hand cutting with chainsaws and prescribed fire. This non-commercial treatment would take

place on up to 100 acres of the Tash Peak IRA to: maintain or restore characteristics of ecosystem composition and structure and to improve wildlife habitat.

Logging conifers is not incidental to the purpose of logging in roadless areas. It is the purpose. The purpose of the logging conifers in the roadless areas is to remove conifers.

This is a violation of the roadless rule, the Forest Service did not show that the roadless areas was outside the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.

The Roadless Rule states in part:

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

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

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

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

characteristics as defined in § 294.11.

- (i) To improve threatened, endangered, proposed, or sensitive species habitat; or
 - (ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;
- (2) The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart;
- (3) The cutting, sale, or removal of timber is needed and appropriate for personal or administrative use, as provided for in 36 CFR part 223; or
- (4) Roadless characteristics have been substantially altered in a portion of an inventoried roadless area due to the construction of a classified road and subsequent timber harvest. Both the road construction and subsequent timber harvest must have occurred after the area was designated an inventoried roadless area and prior to January 12, 2001. Timber may be cut, sold, or removed only in the substantially altered portion of the inventoried roadless area.

36 C.F.R. § 294.13 (2005).

219. The Roadless Rule further explains subsection (b)(2) as follows: “Paragraph

(b)(2) allows timber cutting, sale, or removal in inventoried roadless areas when incidental to implementation of a management activity not otherwise prohibited by this rule. Examples of these activities include, but are not limited to trail construction or maintenance; removal of hazard trees adjacent to classified road for public health and safety reasons; fire line construction for wildland fire suppression or control of prescribed fire; survey and maintenance of property boundaries; other authorized activities such as ski runs and utility corridors; or for road construction and reconstruction where allowed by this rule.” 66 Fed. Reg. 3258 (Jan. 12, 2001)

For over 15 years, the Roadless Rule was the subject of litigation. See e.g. *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1126 (9th Cir. 2002); *California ex rel. Lockyer v. U.S. Dep't of Agric.*, 575 F.3d 999, 1007 (9th Cir. 2009); *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d 1209, 1272 (10th Cir. 2011); *Organized Vill. of Kake v. U.S. Dep't of Agric.*, 795 F.3d 956, 962 (9th Cir. 2015) (en banc); *Alaska v. United States Dep't of Agric.*, 273 F. Supp. 3d 102, 108–12 (D.D.C. 2017). Nonetheless, the Roadless Rule is still in effect.

The project is violating the roadless rule because the Forest Service did not show that within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.

The roadless areas in the project would be declared wilderness under the Northern Rockies Ecosystem Protection Act

The Forest Service responded:

The project has been designed in compliance with the roadless rule exceptions to tree cutting (hand slashing and non-commercial thinning) in IRAs and is incidental to the main treatment in IRA of prescribed fire. Fuels reduction is not part of the purpose and need of the project; please see the purpose and need and effects analysis in the vegetation section of the EA. Please also see the roadless analysis in the EA and roadless report for disclosure of effects to roadless or wilderness characteristics expected to occur from the project.

It is incorrect to say that fuels reduction is not part of the purpose and need because it is the central part. The scoping notice states:

Dr. John Craighead believed the Pfister vegetation classification was the basis for the study of ecosystems. It takes people on the ground with good plots that aren't manipulated or added to. The Craighead team had hundreds of plots throughout central Idaho they used to ground truth the satellite images. If you want good data there are no shortcuts. The Forest Service should have no evidence that they used plots on the ground to ground truth the data.

Please do not dismiss the importance of the following information relating to Pfister, et al. (1977) cited in the EA. See: EA, at page 15.

Quote from Pfister et al. (1977):
RESEARCH SUMMARY

A land-classification system based upon potential natural vegetation is presented for the forests of Montana. It is based on an intensive 4-year study and reconnaissance sampling of about 1,500 stands. A hierarchical classification of forest sites was developed using the habitat type concept. A total of 9 climax series, 64 habitat types, and 37 additional phases of habitat types are defined. A diagnostic key is provided for field identification of the types based on indicator species used in development of the classification. In addition to site classification, descriptions of mature forest communities are provided with tables to portray the ecological distribution of all species. Potential productivity for timber, climatic characteristics, and surface soil characteristics are also described for each type. Preliminary implications for natural resource management are provided, based on field observations and current information.

FOREST HABITAT TYPES OF MONTANA, Robert D. Pfister, Bernard L. Kovalchik, Stephen F. Amo, and Richard C. Presby

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION

Forest Service-U. S. Department of Agriculture
Ogden, Utah 84401 (hereafter, Pfister, et al. (1977), or Pfister)

Pfister et al. (1977) established a new, and vastly improved, forest classification system which further developed the application of habitat type classification to forest ecosystem classification. A better classification system for forest communities and the characteristics of the specific site locations upon which forest vegetation develop and depend.

The habitat type approach to classification of forest sites was developed more than 20 years ago by Daubenmire (1952) for forests of northern Idaho and eastern Washington. His original classification, and a subsequent revision and J. Daubenmire 1961, have proven useful in forest management and research

(Laysex 1974; Pfister 1976). Id. p.1

In 2022, Pfister et al. is considered the “best available science” in this field (old growth and old-growth habitat) of study. It is often, to this day, spoken fondly of as “The Bible” for habitat-type classification, a detailed expression of the overall environment, ie. an ecological classification. There is, quite simply, no better system in existence being used for interpreting the ecological potential of the forested landscapes of Montana and the Northern Rockies. Federal

land managers attempting to make intelligent prescriptions for managing/manipulating forest vegetation should, and must use Pfister's habitat type classifications as the foundation of forest ecosystem analysis.

Pfister is foundational; it is the ground upon which forest ecology and ecosystem science rests. There is no substitute, and any and all attempts to truncate, or compartmentalize elements within Pfister's holistic, habitat-type classification system, represents a most objectionable form of "scientism" that reeks of a hidden agenda that has little to do with interpreting the forest's ecological potential.

ESA - As a foundational ecosystem analysis and interpretation tool, Pfister et al. is linked directly to specific language, unambiguously articulated by Congress, to describe the Purposes of ESA (Endangered Species Act).

(b) PURPOSES

The purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and the threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section. Page one, 16 USC, Chapter 35, §1531(b)

We urge the Forest Service to simply comply with the clear intent of Congress, and its own (government funded) research to properly identify the habitat type in the project area using Pfister, et al. and arrive at an intelligent decision based on the best available science, and the intent and purposes of the federal laws which govern these types of project-level management actions. Emphasis added.

....end of project/EA analysis which references Pfister, and then proceeds to depart into a lengthy narrative, not about habitat type, but some typing using inadequate data, insufficient field examination and data and computer modelling that fails to follow Pfister's habitat typing methodology.

Roadless rule says: "... maintain or restore the characteristics of ecosystem composition and structure..."

May we suggest that HABITAT TYPE, NOT "...*Vegetation condition class (VCC; formally known as fire regime condition class)*..." is the foundation and best available science to determine characteristics of ecosystem composition and structure. (Pfister, et al. (1977). All this "vegetative" mumbo-jumbo is used to avoid Pfister and proper, foundational identification of the habitat type. The Forest Service is looking at the Selway Saginaw project as "tree farmers" not scientists studying natural forest succession/evolution.

Sagebrush and conifers expand and contract their range in response to stand replacing fires. We don't see any evi-

dence that the fire regime is outside the normal range of variability.

Pinon, juniper, and sagebrush have long fire rotations - fire is infrequent but can burn at high intensity when it does occur. Based on what you the Forest Service presented, the landscape being examined has not been shown to be outside the range of natural variability. Therefore the roadless areas should not be logged and burned.

1. Baker and Shinneman. 2004. (Please find attached). Fire rotation for high- severity fire in juniper is estimated at 400-480 years. They conclude: *Natural re-establishment of trees after fire can be quite slow in these woodlands, requiring decades, so that post-fire stands may superficially appear to represent tree invasion. However, post-fire stands can often be identified by the presence of some standing or down charred wood from the fire. Burned woodlands with slowly re-establishing trees do not warrant treatment if the goal is restoration. Invading post-settlement stands and post-settlement trees inside old stands require further research to determine whether restoration is needed, and, if so, what needs to be done. Invasion may be natural (e.g., climatic fluctuations) or human-caused (fire suppression, livestock*

grazing, increased carbon dioxide). Unless the specific natural or human causes can be distinguished for a site, restoration is likely to be ineffective or possibly mis-directed. The first step in effective restoration is to identify and then modify the cause of degradation (Hobbs and Norton, 1996). If our land uses are found to be responsible for tree invasions or density increases, and if restoration is to have lasting value, it is essential to change the land uses that led to the need for restoration.

2. Floyd and others. 2004. Stand replacing fires in juniper 400 years or longer.

3. Bauer and Weisberg. 2009. The fire cycle in pinyon- juniper was estimated at 427 years.

What evidence do you have that shows fire has been suppressed in the area?

Both sagebrush, juniper and Douglas fir all tend to have long fire rotations. Mountain big sage which dominates the area has a natural fire regime of burning 100-250 years. Juniper is much longer like 400-600 years. So the "evidence that sagebrush and juniper are "denser" now is meaning-

less. With hundreds of years between "stand replacement" blazes, it is only natural to have gradual increase in density.

Aspen tends to regenerate with stand replacement blazes. Again if sagebrush, jumper, etc. are increasing, it means there haven't been any significant blazes. When, and if there is, you would have much aspen regeneration.

The main fire study that the EA uses use: History of fire and Douglas-fir establishment in a savanna and sagebrush–grassland mosaic, southwestern Montana, USA Emily K. Heyerdahl a, *, Richard F. Miller b,1 , Russell A. Parsons a has serious methodological issues. Heyerdahl set up plots and looked for fire scars. When she didn't find enough in her plots, she used a bunch of fire-scarred trees outside of her plots which makes the survey not random. This, of course, increases the number of scarred trees, and thus reduces the fire interval. So she concluded that fire burned through the area much more frequently than other studies conclude about sagebrush ecosystems.

Then the FS using the more frequent fire burn regime, they argue that fire suppression has permitted tree densities to increase unnaturally.

George Wuerthner wrote the following article titled, “Fire Scar Historical Reconstructions: Accurate or Flawed” which goes into this criticism in more detail.

JUNE 18, 2020

Fire Scar Historical Reconstructions: Accurate or Flawed?

BY GEORGE WUERTHNER

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First day of the Eagle Creek fire, Oregon. Photo: US Forest Service.

Tree fire scars are used to reconstruct past fire occurrence. These historical reconstructions are often used to guide current forest management on federal lands.

Trees charred but not killed by past fires often form scars where the cambium and inner layers were burnt by fires. A researcher can count the growth rings between scars and calculate the historic fire rotation for the area.

Many assume that western forests are outside of their “normal” density and appearance or what is termed “historic variability”. They assume this is due to several factors including logging of old growth trees, fire suppression, and livestock grazing. Due to this past mismanagement, we are told that forests are “overgrown” “decadent” and ready to burn.

Not to dismiss effects of the kind of management that largely continues unabated today, including on-going logging, grazing, and fire suppression, but whether the current forest stand condition is that far from historic conditions is a matter of increasing debate. There is some concern that fire scar reconstructions are biased towards shorter fire intervals. And in some cases, pollen/charcoal records from lakes, air photo interpretation, sediment flows recorded in landslides and rivers, and use of General Land Office surveys, among other methods, sometimes call into question the veracity of fire scar conclusions.

Timber harvesting is no longer done just to provide timber companies with profits or consumers with wood. Now lumber companies are involved in a much more noble enterprise—they are logging the trees to “restore” the presumed forest “health.”

The scientific basis for “restoration” is based to a large extent on fire scar studies. These studies suggest that the drier forests composed of lower elevation ponderosa pine

and Douglas fir burned frequently and thus kept density low with “park-like” open stands of mostly larger trees. Recent studies using different methods have started to question this well-established story-line. These studies are finding that the intervals between fires is much longer than previously suspected, and that mixed to high severity blazes (where some to many of the trees are killed) were likely common (defined as occurring hundreds of years apart) even in the lower elevation dry forests.

Keep in mind the discussion is focused on lower elevation forests since higher elevation forests like lodgepole pine, fir and spruce are characterized by much longer fire intervals, which have not experienced fuel buildups to any significant degree due to fire suppression, grazing, or timber harvesting.

PROBLEMS WITH FIRE SCAR METHODS

The major method for determining the fire history of an area is to find trees with scars created by fires. If the tree is not killed by the blaze, it may develop a scar that can be counted in the tree rings. This record of past fires is then used to determine the “fire rotation” or the time it takes to burn an area equivalent to one’s study area.

There are four major flaws associated with traditional fire scar studies. These methodological flaws contribute to a bias toward shorter fire rotations—in other words, they tend to overstate the effect of fire suppression on forests because it appears that we are seeing more years between successive fires than we did in the past. If the fire rotation were judged to be longer, however, then much of what is

being characterized as unhealthy forest may be perfectly normal and healthy.

The first flaw is targeted sampling. A researcher walks through the forest looking for areas with an abundance of fire-scarred trees. The trees in this area are then sampled and used to determine the fire history for the area.

In the 1930s the bank robber Willy Sutton was asked why he robbed banks. Sutton is reputed to have replied with the self-evident “because that is where the money is.” In a sense that is how fire researchers have gathered their data on fires—they sample in places with a lot of fire scars.

The problem with targeted sampling is that it’s non-random. It’s like going into a brewery to poll people about whether they like beer.

Places with an abundance of fire scars tend to have naturally low fuel loadings and frequent fires. But these sites may not be representative of the surrounding landscape such as north facing slopes or valley bottoms which may be wetter or have higher productivity and, thus, longer intervals between blazes.

In fact, the reason non-sampled areas lack significant numbers of fire-scarred trees is often that all trees were killed in high severity fires, but the omission of such areas from fire history studies leads to the false conclusion that such blazes are unusual in dry low-elevation forests.

The second flaw is composite fire scars. Most fire studies add up all the fire scars recorded into a “composite” timeline. As one fire scientist suggests, all this does is count fires.

The problem with this technique is that the more scars you find and count over bigger and bigger areas, the shorter the fire interval becomes and the riskier your assumption that any fire recorded by one tree burned throughout the entire study area, even though some trees didn't scar in the fire event.

To give one hypothetical example of how this counting fire might skew the results, let's pretend we have a 1000-acre study area. In that study area, we find evidence for at least one fire every year between 1900 and 2000 or a fire interval of 1 year. However, if each of those fires only burned 1 acre then in a hundred years at most only 10% of the 1000 acres would have been burned. At that rate, the fire rotation would be 1000 years.

Now the above example is an extreme hypothetical situation, but one can see how important it is to recognize that not all fires are equal. You can have many fires that may burn only a small area and have a small influence on the larger forest ecosystem. Most of the ecological "work" of fire is done by the infrequent but larger blazes. And nearly all of these are mixed to high severity blazes.

Recognizing this problem, some fire researchers now use various "filters" to counter this issue. For instance, they may only include fire scars recorded the same year on 3 or more trees. Still, this may not solve the problem because you may find three fire-scarred trees close together, thus be the result of a single small burn.

Unless scarred trees are sampled positioned geographically throughout the study area, even filters will not elimi-

nate the upward bias in the frequency of fire in a given study area.

In other words, your composite may suggest a fire burned within your study area once every 20 years or whatever, but if most of these blazes burned only a few trees, then it is not accurate to conclude that the fire burned the entire area.

How frequent are fires that burn most or all of a large study area? These larger blazes may be far less frequent and take decades to centuries to burn most or all of the study area. Since the critical issue for the forest is the occurrence of the occasional blaze that burns most, if not all, of the entire study area, the fire rotation is the important number to focus on, not the number of fires.

The third flaw is an emphasis on the AVERAGE fire interval rather than the DISTRIBUTION of fire intervals. If you read fire studies carefully they will usually note the longest interval without any recorded fire. Often this is a significant period of many decades. Why is this important? Because the average person hears that there were fires, ON AVERAGE, every 10-20 years and assumes that fires operate like clocks on a regular schedule.

Fires are not clocks. Fires burn in episodic groups usually dictated by periodic droughts that are controlled by shifts in offshore currents like the Pacific Decadal Oscillation, thus tend to be grouped together in certain drought-prone decades. The DISTRIBUTION of a fire interval shows clearly that there are always relatively long periods with little fire, even though the AVERAGE fire return interval might be 10-20 years.

Why is it important that we consider historic distributions of fire intervals rather than average fire intervals? Because the common assumption is that if the fire interval averages 10-20 years, fires would keep tree density low and reduced fuel build up. However, if there are also extremely long fire intervals of 50-80 years or more associated with the DISTRIBUTION of fire intervals, then there may not be an “abnormal” buildup of fuel or increase in tree density, and nothing is out of the ordinary at all. Finally, the fourth major flaw is that traditional fire-scar studies have not been map based. Why is a map of the distribution of trees with scars important? It is only through such mapping that one can determine whether a scarred tree was in the middle of an extensive low-severity fire or at the edge of a high-severity patch. One must look at the age distribution of the surrounding trees to gain real insight into the kind of fire that the scarred tree recorded. This is what the more progressive fire ecologists are beginning to do, and they are finding that many fires in dry forest types are severe fires that burn relatively small areas within a larger fire perimeter, just like ALL fire we see burning in the same forest locations today. Due to these flaws and errors in interpretation, many fire scar histories (but not all) misrepresent the fire regime associated with an area. If the period between fires was occasionally very long, then our forests may not be far out of their historic variability and may be well within that range of variation. If so, they do not require “restoration” because they are not out of balance.

The fact that we are seeing more and larger fires fit perfectly with the pattern that is expected under current climatic conditions. In other words, if you have drier weather conditions, with high temperatures, low humidity, and high winds, you will get more fires. You will get larger fires.

The prevailing climatic conditions are driving most of the apparent change in fire frequency and severity. For instance, the Southwest is in the grips of a drought that hasn't been seen in five hundred years. Not surprisingly, there are fires now burning across the region bigger and more intense than any seen in the past. However, Paleo fire studies confirm that such large fires may not be abnormal when compared to the fires that burned similar severe droughts occurred in the past centuries.

MANAGE FOR ECOLOGICAL PROCESS NOT SOME HISTORIC STAND STRUCTURE

Finally, there is too much emphasis on “restoring” stand structure (in other words the presumed appearance) of forests rather than allowing natural ecological processes to occur on the landscape.

Keep in mind that all forest structure and plant composition is strongly influenced by climate. What fire scar reconstructions tell us is what the forest conditions were like several hundred years ago, not what is shaping forests of today.

It is more critical to accept and promote natural processes like beetle outbreaks, wildfires (including stand replacement blazes), and other natural ecological agents than to

try to create some presumed historic forest structure that never existed in a steady state (and at taxpayer expense)! If natural ecological processes are permitted to occur on our public lands, then the forest will sort out the kind of appearance and structure that is appropriate for current climatic conditions. Critics will claim that a do-nothing approach outside the WUI will only lead to conversions of our forests to some other vegetation type, but the evidence for widespread type conversions is fairly limited at this time.

Even if there is a conversion say from forest to brush or grasslands, that is what the climate of today is creating. We cannot stop such climatic driven changes.

This is not to suggest that all historical reconstructions from fire scar studies are wrong—but it does suggest that most forest scar studies outside the pure ponderosa pine forests of the Southwest (and that's most conifer forests in the West) are probably biased to some degree. Many of the logging proposals in the West are likely based on flawed assumptions about fire ecology and historic conditions. Plus, given climate change, attempting to “reconstruct” historic conditions may be a fool’s errand since vegetation including tree cover are largely controlled by climate. With warming and drying climate, the historic forest composition may no longer be viable.

Before any “restoration” logging is accepted as necessary; the underlying assumptions should be carefully evaluated to make sure they are not skewed towards fire rotations that do not characterize the area accurately.

George Wuerthner has published 36 books including **Wildfire: A Century of Failed Forest Policy.**

Overall, the EA is devoid of any useful information to the public as to why this project enhances wildlife habitat, or is needed to maintain natural ecosystem processes within an IRA. If juniper is so flammable, it is not clear why it has to be slashed before it can be burned. It is clear that this project requires much more information to be provided to the public, and much more documentation to justify vegetation management within the IRA. And as previously noted, the criteria which the resource specialists used to estimate the level of impact needs to be provided, as well, to the public. It seems readily apparent that this project requires at a minimum an environmental assessment in order to comply with the NEPA, including the provision of valid, reliable information to the public when the Forest Service is planning resource management activities.

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

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

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

The purpose of this project is to improve big game and grouse habitat and to make the forest more resilient and plan for a more historic fire regime. Based on Dr. Baker’s paper, the proposed action will not meet the purpose and need of the project.

Please find attached DellaSala et al 2022.

Dr. Baker’s and DellaSala’s paper are the best available science. Please explain why this project is not following the best available science.

Please explain include a discussion of the following:

1. Baker and Shinneman. 2004. Fire rotation for high-severity fire in juniper is estimated at 400-480 years.
2. Floyd and others. 2004. Stand replacing fires in juniper 400 years or longer.
3. Bauer and Weisberg. 2009. The fire cycle in pinyon- juniper was estimated at 427 years.

What evidence do you have that shows fire has been suppressed in the area?

Baker and Shinneman (2004), Bauer and Weisberg (2009), and Floyd et al. 2004) that demonstrate that the fire cycle in juniper woodlands is very long, up to 400 years or longer,

and has not been impacted by any fire suppression actions since settlement. In addition, Coop and Magee (Undated) noted that low-severity fire is not generally considered to have played an important role in shaping patterns of pre-settlement pinyon-juniper woodland structure, where fire regimes were mostly characterized by rare stand-replacing fire; as a result, they noted that direct management interventions such as thinning or fuel reductions may not represent ecological restoration.

Please find Schoennagel et al (2004) attached. Schoennagel states: “we are concerned that the model of historical fire effects and 20th-century fire suppression in dry ponderosa pine forests is being applied uncritically across all Rocky Mountain forests, including where it is inappropriate.

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.”

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 sub- alpine forests would not represent a restoration treatment but rather a departure from the natural range of variability in stand structure.”

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

Schoennagel et al (2004) states: “The 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 restore 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 sub-alpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure outside the historic range of variability.”

Likewise, Brown et al (2004) states: “At higher elevations, forests of subalpine fir, Engelmann spruce, mountain hem-lock, and lodgepole or whitebark pine predominate. These forests also have long fire return

intervals and contain a high proportion of fire sensitive trees. At periods averaging a few hundred years, extreme drought conditions would prime these forests for large, severe fires that would tend to set the forest back to an early successional stage, with a large carry-over of dead trees as a legacy of snags and logs in the regenerating forest natural ecological dynamics are largely preserved because fire suppression has been effective for less than one natural fire cycle.

Thinning for restoration does not appear to be appropriate in these forests. Efforts to manipulate stand structures to reduce fire hazard will not only be of limited effectiveness but may also move systems away from pre-1850 conditions to the detriment of wildlife and watersheds.” “Fuel levels may suggest a high fire ‘hazard’ under conventional assessments, but wildfire risk is typically low in these settings.”

Likewise, Graham et al (2004) states: “Most important, the fire behavior characteristics are strikingly different for cold (for example, lodgepole pine, Engelmann spruce, subalpine fir), moist (for example, western hemlock, western redcedar, western white pine), and dry forests. Cold and moist forests tend to have long fire- return intervals, but fires that do occur tend to be high- intensity, stand-replacing fires. Dry forests historically had short intervals between fires, but most important, the fires had low to moderate severity.”

According to Graham et al (2004), thinning may also increase the likelihood of wildfire ignition in the type of forests in this Project area: “The probability of ignition is strongly related to fine fuel moisture content, air temperature, the amount of shading of surface fuels, and the occurrence of an ignition source (human or lightning caused) There is generally a warmer,

dryer microclimate in more open stands (fig. 9) compared to denser stands. Dense stands (canopy cover) tend to provide more shading of fuels, keeping relative humidity higher and air and fuel temperature lower than in more open stands. Thus, dense stands tend to maintain higher surface fuel moisture contents compared to more open stands. More open stands also tend to allow higher wind speeds that tend to dry fuels compared to dense stands. These factors may increase probability of ignition in some open canopy stands compared to dense canopy stands.”

Please see the attached report titled: “Have western USA fire suppression and megafire active management approaches become a contemporary Sisyphus?” By Dominick A. DellaSala^{a,*}, Bryant C. Baker^{b,c}, Chad T. Hanson^d, Luke Ruediger^{e,f}, William Baker^g

The abstract of the paper states:

Fire suppression policies and “active management” in response to wildfires are being carried out by land managers globally, including millions of hectares of mixed conifer and dry ponderosa pine (*Pinus ponderosa*) forests of the western USA that periodically burn in mixed severity fires. Federal managers pour billions of dollars into command-and-control fire suppression and the MegaFire (landscape scale) Active Management Approach (MFAMA) in an attempt to contain wildfires increasingly influenced by top down climate forcings. Wildfire suppression activities aimed at stopping or slowing fires include expansive dozer-lines, chemical retardants and igniters, backburns, and cutting trees (live and dead), including within roadless and wilderness areas. MFAMA involves logging of large, fire-resistant live trees and snags; mastication of beneficial shrubs; degradation of wildlife habitat, including endangered species habitat; aquatic impacts from an expansive road system; and logging-related carbon emissions. Such impacts are routinely dismissed with minimal environmental review and defiance of the precautionary principle in environmental planning. Placing restrictive bounds on these activities, deemed increasingly ineffective in a change climate, is urgently needed to overcome their contributions to the global biodiversity and climate crises. We urge land managers and decision makers to address the root cause of recent fire increases by reducing greenhouse gas emissions across all sectors, reforming industrial forestry and fire suppression practices, protecting carbon stores in large trees and recently burned forests, working with wildfire for ecosystem benefits using minimum suppression tactics

when fire is not threatening towns, and surgical application of thinning and prescribed fire nearest homes.

This conclusion of this paper is that the purpose and need of the project will not be met by your proposed management activities. This paper is now the best available science. Why does the Selway Saginaw proposal not follow the best available science?

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 Selaway Saginaw Project is in violation NEPA, NFMA, the APA, and the Roadless Rule.

Remedy

Choose the No Action Alternative or Withdraw the draft decision and write an EIS that fully complies with the law.

We wrote in our comments:

The Agency is Violating the NEPA by Failing to Provide Important Resource Conditions and Vegetation Conditions in the Project Area Before a Decision is Made and Implemented in the Project Area.

FS Response

You will find the information you seek in the environmental assessment and draft decision notice. We provided preliminary analysis in the scoping and 30-day comment package to give people an idea of the effects. Final analyses are summarized in the environmental assessment to present findings by wildlife and other resource specialists. The full analyses are also available on the project web page

We also wrote on this subject:

The FS did not provide adequate analysis for public review and needs to provide more in a separate 30-day comment period. Native Ecosystems Council (NEC) and the Alliance for the Wild Rockies (AWR) would like to

provide scoping comments for the proposed Selway Saginaw Vegetation Management Project, as Selway Saginaw Vegetation Management Project announced via Pre-scoping on the Forest Service Web Page (copy attached) that was published in the Montana Standard on October 7, 2020. The September 2, 2020 mailed Forest Service letter introducing the proposed Selway Saginaw Vegetation Management Project, however, stated that this project was being released for public comments as a "combined scoping and 30-day comment period of a "preliminary analysis." But there was no actual preliminary analysis, which one would assume was a preliminary environmental assessment. NEC requested a "hard copy" of the preliminary analysis via certified mail on October 5, thinking this was a preliminary environmental assessment, but only received the original scoping letter instead. So there

apparently is no actual "preliminary analysis" or draft environmental assessment as of yet for this project proposal, even though the agency is requesting public comments on this nonexistent preliminary analysis.

In regards to the claimed "preliminary analysis," the scoping letter stated that it contained the preliminary findings regarding environmental effects to better help the public understand the effects of the proposal, but there was almost no information provided on project impacts to wildlife. The scoping letter includes only about 2

pages that summarize impacts to all wildlife that may occur in the project area, including sage grouse, big game winter range, elk displacement to private lands, wolverine, and impacts on this key linkage areas for grizzly bears between the Northern Continental Divide Ecosystems and the Greater Yellowstone Ecosystem.

In conclusion, the agency cannot ask for a 30-day comments on a preliminary analysis that does not exist. In addition, since the project is defined as "pre-scoping" and also scoping on the Forest Service web page, there would be no specific time limit for public comments as per 36 CFR 218 Subparts A and B. As such, NEC and AWR expect to receive a copy of the draft Environmental Assessment and Finding of No Significant Impact (FONSI) when it is released for public comment.

FS Response

A combined scoping and 30-day comment period was offered pursuant to 36 CFR 220.4 (e), 36 CFR 218.25 (a)(1) (i), and 40 CFR 1501.9. Individuals, organizations, government agencies, and Tribes that provided written comments will be notified when the final environmental assessment, finding of no significant impacts and draft decision notice documents are available when the objection period is initiated, as described by 36 CFR 218 subpart A.

The Forest Service is not complying with NEPA, NFMA, the APA and the ESA for the Selway Saginaw project.

Remedy:

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

We wrote in our comments:

This project will eliminate vast acreages of essential prey species to forest carnivores (e.g., martin, wolverine, coyotes, lynx, bob cats, coyotes, wolves) and forest raptors (e.g., goshawk great gray owl, boreal owl). The impact of logging on the red squirrel and snowshoe hare need to be evaluated. What level of habitat loss, including from past logging, is considered as a trigger for significant population decline of these 2 prey species? How will this level of decline be prevented for this project.

The Forest Service responded on page 63 - 64 of the EA:

Wildlife Habitat

Federally Listed Species

Canada Lynx

Direct and Indirect Effects

The proposed action would result in direct effects to Canada lynx habitat through changes in stand structure

and species composition from intermediate harvest, re-generation harvest, pre-commercial thinning, conifer reduction, watershed restoration, and road construction actions.

There would also be indirect effects to Canada lynx from human activity including increased traffic and equipment use during project activities.

The proposed action in combination with the environmental baseline may affect and is not likely to adversely affect the Canada lynx. There is no effect to Canada lynx Critical Habitat because there is none present in the analysis area. Rationale for the determination is as follows:

-

Canada lynx habitat targeted for commercial treatment is currently in a condition that does not provide high quality lynx habitat. Within approximately 10 to 15 years, vegetation would be in a stand initiation stage that provides snowshoe hare habitat. All high-quality habitat would be retained within these units. Effects to lynx habitat from commercial timber harvest would be insignificant.

-

Planned treatments have the potential to improve snowshoe hare habitat and, therefore, prey availability in the future.

-

*The project maintains a mosaic of forest structures and successional stages, which is the conservation measure described in the revised **Lynx** Conservation Assessment and Strategy for vegetation management in secondary/peripheral areas, which is the **lynx** habitat that occurs on the Beaverhead-Deerlodge. Secondary and peripheral areas provide habitat to support **lynx** during dispersal movements or other periods, with animals likely returning to core areas that contribute directly to long-term persistence and **lynx** reproduction (Interagency **Lynx** Biology Team 2013).*

-

***Lynx** would likely avoid openings greater than 40 acres created by regeneration harvest because untreated patches of vegetation would be available connecting forested habitat.*

*These harvested areas would provide snowshoe hare habitat within 10 to 15 years. Untreated vegetation and proposed intermediate treatment areas would provide sufficient **lynx** connectivity corridors within the analysis area in both the short and long-term.*

-

The project involves temporary forest and sagebrush road construction and road maintenance and would not increase the traffic speed because there are no speed limit changes proposed. Hauling of logs may increase volume of vehicular traffic for up to ten years on temporary, new, and rerouted forest roads, although all roads would not be used at the same time. There would be no seasonal use increases.

-

The project does not impede lynx movement and does not eliminate habitat connectivity in identified linkage areas.

-

All treatments comply with the Northern Rockies Lynx Management Direction standards and guidelines and are not expected to preclude any future use of the area by lynx.

-

There are no known resident lynx in the analysis area, however, is possible that lynx could travel through the analysis area.

-

There are no proposed increases in winter recreation and no increases in such activities are expected.

Cumulative Effects

Approximately 1,478 acres of the 70,517 acres of lynx analysis units that support habitat for this species are on non-Forest System lands. These lands consist of private ownership and State of Montana and Bureau of Land Management managed lands. Future state timber harvest, livestock grazing, fire suppression, small scale mining, and hunting and recreation are actions that could affect lynx or lynx habitat in the analysis area. There are no reasonably foreseeable timber sales on either private or state lands. Small private mining operations, livestock grazing, and recreational activities such as hunting or snowmobiling could add cumulatively to potential disturbance from project actions. Winter recreation including snowmobile use is expected to remain at current levels, and such activities would not impact lynx habitat because snowmobiles typically stay out of forested habitat. These activities would be discountable because the amount and intensity of these activities is anticipated to remain at current levels in the next ten years within the analysis unit under this proposal.

Approximately 7,473 acres of the 2018 Goldstone Fire overlaps the Selway-Saginaw project area. Within the area of overlap with the analysis area, about 4,579 acres burned at moderate to high fire severity. A total of 210

acres of regeneration treatment is proposed in five units within the Goldstone burned area. Approximately 193 acres consist of areas unaffected or affected by low severity wildfire. Moderate and high severity-affected areas total 12 acres. The majority of burned forested area is now in an early stand initiation habitat classification, which currently provides no winter snowshoe hare habitat. Over the next five years, the habitat would become stand initiation, and would provide cover and habitat for snowshoe hare.

The 2021 Black Mountain Fire encompassed about 1,040 acres of the project area. The wildfire occurred outside proposed treatment units except for about three acres overlapping precommercial thinning unit 451. Approximately 700 acres burned at moderate to high intensity which reduced canopy cover in those areas by 75 to 100 percent. Most of the vegetation within that experienced moderate to high severity burning is now in an early stand initiation phase and would begin to provide snowshoe hare habitat in approximately ten years. Given the large amount of suitable habitat within the analysis area, past wildfires are anticipated to have discountable effects on Canada lynx.

The likelihood of measurable negative cumulative effects to Canada lynx or their habitat from the proposed action, past human activities and wildfires, and future private land activities are expected to be low. This is because the action complies with all standards and guidelines in the

Northern Rockies Lynx Management Direction which are designed to minimize impacts to Canada lynx.

The EA also states on page 39-40:

Wildlife Habitat

Federally Listed Species

Canada lynx

The existing vegetation would be influenced solely by natural causes and current management response to natural disturbance events, such as wildfire, windthrow, and insect and disease damage. These natural processes would impact the availability and distribution of lynx habitat in the analysis area under the no action alternative. The most likely disturbance is wildfire. Infrequent landscape-sized fires that regenerate large patches of forest are possible, resulting in burned areas that support a mosaic of vegetation patch sizes and age classes. Under extreme conditions, severe fire effects to vegetation and Canada lynx habitat are possible within the analysis area.

In the absence of regeneration events, stem exclusion stands are unlikely to transition to suitable snowshoe hare forage habitat in the short term. Transition to suitable habitat such as mature, multistory forage would require

natural senescence in some portion of the stands and be well-distributed across a vast area such as a lynx analysis unit. Currently suitable stand initiation habitat would remain present until transition to a stem exclusion stage. There is an overabundance of stem exclusion stands in the lynx analysis units analyzed, and transition into this unsuitable structure in the coming decades is expected. Existing multistory forage habitat in the project area has the potential to be retained in the long-term. The no action alternative provides a baseline for comparison of effects from the proposed action and represent potential natural changes over time.

Maintaining existing condition is not expected to negatively impact lynx. Lodgepole pine stands would not be actively thinned or regenerated, so the abundance of high-quality foraging habitat would be reduced in the long-term.

Why is the Forest Service ignoring the Kosterman threshold for clearcutting (no more than 15% per LAU) and the mature forest conservation requirement (conserve it all including at least 50% per LAU)?

Kosterman finds that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inches dbh. This contradicts the agency's assumption in the Lynx Amendment that 30% of lynx habitat can be clearcut,

and that no specific amount of mature forest needs to be conserved. It is now the best available science out there that describes lynx habitat in the Northern Rockies related to lynx viability and recovery. Kosterman's study demonstrates that the Lynx Amendment standards are not adequate for lynx viability and recovery, as previously assumed by the Forest Service.

Kosterman's Thesis says that clearcutting more than 10-15% of a lynx home range results in declines in reproduction. Many National Forests allow more clearcutting than this. The Lynx Amendment allows up to 30% clearcutting in a home range, which means that habitat has declined and is declining from the levels necessary for reproduction and therefore survival and recovery.

Kosterman's Thesis recommends conserving mature/old growth forest and maintaining 50% mature/old growth in each lynx home range. No National Forest is complying with that due to past and current logging, which means that habitat has declined and is declining from the levels necessary for reproduction and therefore survival and recovery.

Squires says that lynx avoid clearcuts.

FWS has no idea what the population of lynx is because they don't do lynx population monitoring. In light of the government's failure to monitor lynx population trends, it would be disingenuous for FWS to argue that "there is no evidence of population decline" because the reason that "there is no evidence" is because the government refuses to

conduct monitoring. In light of the government's failure to monitor and document populations and population trends, the Forest Service and the FWS must apply the precautionary principle and assume that the effects of allowing logging that does not comply with Kosterman and Squires findings is resulting in population declines.

Since this is now the best available science we are hereby formally requesting that the Forest Service write a supplemental EIS for the Northern Rockies Lynx Management Direction and reinitiate consultation with the FWS for the Lynx Amendment to publicly disclose and address the findings of this study, and to allow for further public comment on this important issue of lynx recovery.

Page 93 of the 2016 Fleecer EA states: "In July, 2013 the U.S. Fish and Wildlife Service updated the "Threatened, Endangered and Candidate Species for the Beaverhead-Deerlodge National Forest" and the Canada lynx was added to the BDNF list as "Transient; secondary/peripheral lynx habitat"; where it remains (USDI Fish and Wildlife Service 2016)."

The Forest straddles the mountains of the Continental Divide and contains nationally renowned trout streams, elk populations, and some of last wild refuges for many threatened, endangered, and sensitive fish and wildlife species.

In particular, the Forest and Project area provide habitat for grizzly bears, wolverines, Canada lynx, gray wolves, and westslope cutthroat trout.

Ruggiero et al (1999), the Forest Service's General Technical Report "Ecology and Conservation of Lynx in the United States," states that lynx are present in the Forest.

Ruediger et al (2000), the agencies' "Canada lynx conservation assessment and strategy," considers the Forest within the geographic extent of the strategy.

The Montana Department of Fish, Wildlife, and Parks has compiled a database of lynx occurrences and distribution throughout Montana from 1977 -1998. This information was mapped on pages 244 and 247 of Ruggiero et al (1999) and shows numerous occurrences in the Forest.

In Squires (2003), the Forest Service documents: "Discussions with local trappers and biologists indicate that lynx were present in the Pioneer Mountains prior to the late 1990's, and had been detected during winter track surveys as recently as 2000 (Forkan 2000). This fact is substantiated by the number of trapped lynx from this area in the 1970s." Elsewhere, the report notes "[f]rom 1977 to 1994, 39 lynx occurrences were recorded in the Pioneer Mountains, including 13 harvested individuals (McKelvey et al. 2000). Snow-track surveys performed as recently as 2000 indicated that lynx were present along the Scenic Byway (Forkan 2000)."

In Squires (2003), the Forest Service documented the results of winter tracking surveys. The record indicates two (2) sets of lynx tracks were found in the Forest near the Project area, within the Big Hole landscape area

(which is the analysis area for wildlife security for the Project). The report concludes that “lynx were either absent or at very low densities during our study.” (emphasis added).

The U.S. Fish and Wildlife Service’s final map (2003) for lynx shows that the Forest is within the range of both resident and dispersing lynx.

Berger (2009) found one set of potential lynx tracks in the Forest during winter tracking surveys, as well as one set outside the Forest boundary that was heading towards the Forest boundary.

In Devineau (2010), the State of Colorado Division of Wildlife documented locations of radio-collared lynx released in Colorado. The record shows

multiple lynx traveling in the Forest (approximately four (4) individuals), including at least two individual lynx traveling in the Project area. One of the individuals inhabited the Madison Range for approximately two weeks.

In litigation over lynx critical habitat in 2010, the U.S. Fish and Wildlife Service admitted that the Forest is occupied for the purpose of designating lynx critical habitat. *Alliance for Wild Rockies v. Lyder*, 728 F.Supp.2d 1126, 1133 (D. Mont. 2010)(“Plaintiffs take exception to the Service's failure to designate the Beaver-head-Deerlodge [and certain other National Forests] as lynx critical habitat. [FN4] . . . In

response, the government acknowledges the record shows such forests to be occupied”)

The Forest Service’s Fleecer Mountains Watershed Assessment (2009) indicates that lynx are “potentially” “likely to be present” in the Project area. It also states “f]rom 1988 to 1999 there are 72 reports of lynx being trapped or observed in the Pioneers, Big Hole Mountains and Fleecer Range.”

The Project area contains agency-designated “linkage areas” for the Canada lynx: one on the north end of the Project area heading northwest to the Anaconda Mountains and Anaconda-Pintler Wilderness, and one to the southwest heading to the Pioneer Mountains.

The Project analysis and impacts on ESA-listed Canada lynx violate the ESA, NEPA, and NFMA.

The Federal District Court of Montana recently ordered the USFWS to reconsult on lynx critical habitat because they did not base lynx critical habitat on where lynx were at the time of listing in 2000. Lynx were in the project area at the time of listing so the Forest Service needs to consult with the FWS to see if this project could effect lynx critical habitat.

The Forest Plan analysis and impacts on ESA-listed lynx violate ESA, NFMA, and NEPA.

The Forest Service’s failure to take a hard look at lynx presence and the Forest Plan’s potential impacts on lynx,

using the best available science, including the agency's failure to assess the Forest Plan's impacts on lynx travel/linkage corridors, violates NEPA. See *Pacific Rivers Council v. U.S.*

Forest Service, --- F.3d ----, 2012 WL 336133 (9th Cir. 2012).

The Forest Service's failure to include binding legal standards aimed at conserving and recovering ESA-listed lynx on the Forest in the Forest Plan violates NFMA.

The FS approval and implementation of the Lynx Management Direction is arbitrary and capricious, violates NEPA's hard look requirement and scientific integrity mandate and fails to apply the best available science necessary to conserve lynx. The Lynx Direction contains no protection or standard for conservation of winter lynx habitat (old growth forests). This project allows the logging of thousands of acres of old growth without any analysis of whether that forest is necessary for conservation as winter lynx habitat. Please take a hard look at this factor. By failing to include a provision to protect winter lynx habitat, the Lynx Direction fails to apply the best available science and implement the measures necessary for lynx conservation, as required by the ESA. The Lynx

Direction also arbitrarily exempts WUI lands from lynx habitat protection. If this exemption did not exist, the project could not proceed because the logging authorized

by the projects violates at least one of the protection for lynx habitat.

The Lynx Amendment and its Biological Opinion/Incidental Take Statement allow unrestricted logging in the wildland urban interface, which the agencies estimate to compose approximately 6% of the lynx habitat on National Forests. The EA nor the DN explain where the WUI is in relation to the projects and the LAUs but merely state that the entire project lies within the WUI boundary. EA p. 164, foot note 11. Also, it is not clear why the project does not utilize the Lynx Amendment wildland urban interface map to define WUI, the correct definition for WUI, but instead uses the definition in the Healthy Forest Restoration Act. If the projects were to use the correct definition of WUI, the project could not proceed. The failure to comply with logging restrictions outside the WUI violates NFMA. The failure to adequately address this issue in the EA and demonstrate compliance with the Lynx Amendment violates NEPA.

The analysis of the impacts to lynx in the EA and the DN is extremely limited and it inappropriately uses an LAU that is excessively large, allowing the impacts to be minimized. The current best science suggests that female lynx home range is about 10,000 acres. The project area is almost 10 times the size. The analysis in the EA is invalid.

The current science demonstrates that lynx must travel between areas of high hare densities and resist traveling

through low cover areas in winter. The EA fails to identify the amount of non or low cover areas that will be created from the project. The project fails to use the best available science in regard to lynx habitat. As stated in AWR's comments, the best available science is now Kosterman's masters Thesis, "Correlates of Canada Lynx Reproductive Success in Northwestern Montana" This study finds that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inches dbh. This contradicts the agency's assumption in the Lynx Amendment that 30% of lynx habitat can be clearcut, and that no specific amount of mature forest needs to be conserved. It is now the best available science out there that describes lynx habitat in the Northern Rockies related to lynx viability and recovery. Kosterman's study demonstrates that the Lynx Amendment standards are not adequate for lynx viability and recovery, as assumed by the Forest Service

The current best science indicates that lynx winter foraging habitat is critical to lynx persistence (Squires et al. 2010), and that this habitat should be "abundant and well-distributed across lynx habitat." (Squires et al. 2010; Squires 2009.) Existing openings such as clearcuts not yet recovered are likely to be avoided by lynx in the winter. (Squires et al. 2010; Squires et al. 2006.)

Lynx winter habitat, provided only in older, multi-storied forests, is critical for lynx preservation. (Squires et al. 2010.) Winter is the most constraining season for lynx in terms of resource use; starvation mortality has been found to be the most common during winter and early spring. (Squires et al. 2010.) Prey availability for lynx is highest in the summer. (Squires et al. 2013.)

Squires et al. (2013) noted in their research report that some lynx avoided crossing highways; in their own report, they noted that only 12 of 44 radio-tagged lynx with home ranges including 2-lane highways crossed them. Openings, whether

small in uneven-aged management, or large with clearcutting, remove lynx winter travel habitat on those affected acres, since lynx avoid openings in the winter. (Squires et al. 2010.)

Squires et al., 2010 reported that lynx winter habitat should be “abundant and spatially well-distributed across the landscape. Those authors also noted that in heavily managed landscapes, retention and recruitment of lynx habitat should be a priority.

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

Endangered Species Act requires the FS to insure that the project is not likely to result in the destruction or adverse modification of critical habitat. 16 U.S.C. §1536(a)(2). Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for lynx. 74 Fed. Reg. 8644.

The Northern Rockies Lynx Management Direction (NRLMD) as applied in the project violates the ESA by failing to use the best available science to insure no adverse modification of critical habitat. The NRLMD carves out exemptions from Veg Standards S1, S2, S5, and S6. In particular, fuel treatment projects may occur in the WUI even though they will not meet standards Veg S1, S2, S5, or S6, provided they do not occur on more than 6% of lynx habitat on each 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 lynx critical habitat to be destroyed forest-wide while not appreciably reduce the conservation value.

Standard S2 prohibits projects that do regenerate more than 15% of lynx habitat on NFS lands within an LAU in a 10-year period. The EA and DN do not provide the number of acres within the LAU that have been harvested within the last 10-years and fails to take previous project in account in regards to Veg Standard S2.

The FS violated NEPA by applying the above-mentioned exception without analyzing the impacts to lynx in the individual LAUs. The Project violates the NFMA by failing to insure the viability of lynx. According to the 1982 NFMA regulations, fish and wildlife must be managed to maintain viable populations of Canada lynx in the planning area. 36 C.F.R. 219.19. The FS has not shown that lynx will be well-distributed in the planning area. The FS has not addressed how the project's adverse modification of denning and foraging habitat will impact distribution. This is important because the agency readily admits that the LAUs already contain a "relatively large percentage of unsuitable habitat." The NRLMD ROD at 40 states that: The national forests subject to this new direction will provide habitat to maintain a viable population of lynx in the northern Rockies by maintaining the current distribution of occupied lynx habitat, and maintaining or enhancing the quality of that habitat."

A big problem with the Forest Plan (including the NRLMD) is that it allows with few exceptions the same level of industrial forest management activities that occurred prior to Canada lynx ESA listing.

The Northern Rockies Lynx Management Direction appeal decision requires the FS to consult with the US Fish and Wildlife Service regarding lynx and lynx critical habitat. The Wildlife Report, Frost 2017, states that the effects determination for lynx is “may affect, likely to adversely affect. This means that listed resources are likely to be exposed to the action or its environmental consequences and will respond in a negative manner to the exposure.

The project does not have a take permit from the USFWS and is in violation of the ESA, NFMA, the APA and NEPA. The ESA (Section 3) defines take as "to harass, harm, pursue, hunt, shoot, wound, trap, capture, collect or attempt to engage in any such conduct". The USFWS further defines "harm" as "significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering", and "harass" as "actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering". The project will harm lynx.

Squires found that lynx avoid clearcuts for up to 50 years. A big problem with the Forest Plan and the NRLMD is that it allows with few exceptions the same level of industrial forest management activities that occurred prior to Canada lynx ESA listing. The FS approval and implementation of

the NRLMD and the revised Beaverhead-Deerlodge National Forest Forest Plan is arbitrary and capricious, violates NEPA's hard look requirement and scientific integrity mandate and fails to apply the best available science necessary to conserve lynx. The NRLMD or the revised BDNF Forest Plan contain no protection or standard for conservation of winter lynx habitat (old growth forests).

Please disclose if the FS conducted lynx occurrence surveys of habitat in the LAUs.

Please disclose if surveys target snowshoe hare occurrence data in these stands newly considered unsuitable for lynx. Also, the EA doesn't indicate if the FS surveyed any areas (proposed for logging and/or burning or not) thought to not be lynx habitat based on mapping or stand data were surveyed to confirm unsuitable habitat conditions.

The current science demonstrates that lynx must travel between areas of high hare densities and resist traveling through low cover areas in winter. The EA fails to identify the amount of non-cover or low-cover areas that will be created from the project.

It appears the FS doesn't have a coherent strategy for recovering lynx from their Threatened status, including linking currently populated areas with each other through important linkages such as project area LAUs.

Please analyze and disclose cumulative impacts of recreational activities on lynx, such as snowmobiles. As the KNF's Galton FEIS states, "The temporal occurrence of forest uses such ... winter (skiing and snowmobiling) ... may result in a temporary displacement of lynx use of that area..."

Please analyze and disclose how lynx habitat capacity for denning will be impaired by project activities.

The USFWS listed the Canada lynx as a threatened species under the Endangered Species Act in 2000 due to "lack of guidance for conservation of lynx and snowshoe hare habitat..." and subsequent authorization of actions that may cumulatively adversely affect the lynx. Relatively little is known about lynx in the contiguous United States. Historically, lynx inhabited states spanning from Maine to Washington, but it is unknown how many lynx remain.

Lynx are highly mobile and generally move long distances [greater than 60 mi. (100 km.)]; they disperse primarily when snowshoe hare populations decline; subadult lynx disperse even when prey is abundant, presumably to establish new home ranges; and lynx also make exploratory movements outside their home ranges. 74 Peg. Reg. at 8617. The contiguous United States is at the southern edge of the boreal forest range, resulting in limited and patchy forests that can support snowshoe hare and lynx populations.

Lynx subsist primarily on a prey base of snowshoe hare, and survival is highly dependent upon snowshoe hare habitat, forest habitat where young trees and shrubs grow densely. In North America, the distribution and range of lynx is nearly “coincident” with that of snowshoe hares, and protection of snowshoe hares and their habitat is critical in lynx conservation strategies.

Since more often than not when the FS conducts logging projects in LAUs surveys of stands for lynx habitat result in less suitable habitat than previously assumed, the FS needs to take a few steps backward and consider that its range-wide Canada lynx suitable habitat estimations were too high.

Squires et al. (2013) noted that long-term population recovery of lynx, as well as other species as the grizzly bear, require maintenance of short and long-distance connectivity. The importance of maintaining lynx linkage zones is also recognized by the FS's Lynx Conservation Assessment and Strategy (LCAS), as revised in 2013, which stresses that landscape connectivity should be maintained to allow for movement and dispersal of lynx.

Squires et al. (2013) noted in their research report that some lynx avoided crossing highways; in their own report, they noted that only 12 of 44 radio-tagged lynx with home ranges including 2-lane highways crossed them.

The current best science indicates that lynx winter foraging habitat is critical to lynx persistence (Squires et al. 2010), and that this habitat should be “abundant and well-dis-

tributed across lynx habitat.” (Squires et al. 2010; Squires 2009.) Existing openings such as clearcuts not yet recovered are likely to be avoided by lynx in the winter. (Squires et al. 2010; Squires et al. 2006a.)

Lynx winter habitat, provided only in older, multi-storied forests, is critical for lynx preservation. (Squires et al. 2010.) Winter is the most constraining season for lynx in terms of resource use; starvation mortality has been found to be the most common during winter and early spring. (Squires et al. 2010.) Prey availability for lynx is highest in the summer. (Squires et al. 2013.)

Openings, whether small in uneven-aged management, or large with clearcutting, remove lynx winter travel habitat on those affected acres, since lynx avoid openings in the winter. (Squires et al. 2010.)

Squires et al., 2010 reported that lynx winter habitat should be “abundant and spatially well- distributed across the landscape.” Those authors also noted that in heavily managed landscapes, retention and recruitment of lynx habitat should be a priority.

The LCAS (Ruediger et al. 2000) recommends, until conclusive information is developed concerning lynx management, the agencies retain future options; that is, choose to err on the side of maintaining and restoring habitat for lynx and their prey. To err on the side of caution, the KNF would retain all remaining stem exclusion forests for recruitment into lynx winter habitat, so that this key habitat would more closely resemble historic conditions.

As early as 2000, the LCAS noted that lynx seem to prefer to move through continuous forest (1- 4); lynx have been observed to avoid large openings, either natural or created (1-4); opening and open forest areas wider than 650 feet may restrict lynx movement (2-3); large patches with low stem densities may be functionally similar to openings, and therefore lynx movement may be disrupted (2-4). Squires et al. 2006a reported that lynx tend to avoid sparse, open forests and forest stands dominated by small-diameter trees during the winter. Squires et al. 2010 again reported that lynx avoid crossing clearcuts in the winter; they generally avoid forests composed of small diameter saplings in the winter; and forests that were thinned as a silvicultural treatment were generally avoided in the winter.

Squires et al. 2010 show that the average width of openings crossed by lynx in the winter was 383 feet, while the maximum width of crossed openings was 1240 feet.

Recent scientific findings undermine the Forest Plan/NRLMD direction for management of lynx habitat. This creates a scientific controversy the FS fails to resolve, and in fact it essentially ignores it.

For one, Kosterman, 2014 found that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inched dbh. Young regenerating forest should occur only on 10-15% of a female lynx home range, i.e. 10-15% of an LAU. This renders inadequate the agency's assumption in the Forest Plan/NRLMD that 30%

of lynx habitat can be open, and that no specific amount of mature forest needs to be conserved. Kosterman, 2014 demonstrates that Forest Plan/NRLMD standards are not adequate for lynx viability and recovery.

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

First, we demonstrated that lynx clearly use silviculture treatments, but there is a ~10 year cost of implementing any treatment (thinning, selection cut, or regeneration cut) in terms of resource use by Canada lynx. This temporal cost is associated with lynx preferring advanced regenerating and mature structural stages (Squires et al., 2010; Holbrook et al., 2017a) and is consistent with previous work demonstrating a negative effect of precommercial thinning on snowshoe hare densities for ~10 years (Homyack et al., 2007). Second, if a treatment is implemented, Canada lynx used thinnings at a faster rate post-treatment (e.g., ~20 years posttreatment to reach 50% lynx use) than either selection or regeneration cuts (e.g., ~34–40 years post-treatment to reach 50% lynx use). Lynx appear to use regeneration and selection cuts similarly over time suggesting the difference in vegetation impact between these treatments

made little difference concerning the potential impacts to lynx (Fig. 4c). Third, Canada lynx tend to avoid silvicultural treatments when a preferred structural stage (e.g., mature, multi-storied forest or advanced regeneration) is abundant in the surrounding landscape, which highlights the importance of considering landscape-level composition as well as recovery time. For instance, in an area with low amounts of mature forest in the neighborhood, lynx use of recovering silvicultural treatments would be higher versus treatments surrounded by an abundance of mature forest (e.g., Fig. 3b). This scenario captures the importance of post-treatment recovery for Canada lynx when the landscape context is generally composed of lower quality habitat. Overall, these three items emphasize that both the spatial arrangement and composition as well as recovery time are central to balancing silvicultural actions and Canada lynx conservation.

So Holbrook et al., 2018 fully contradict Forest Plan assumptions that clearcuts/regeneration can be considered useful lynx habitat as early as 20 years post-logging.

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

Kosterman, 2014, Vanbianchi et al., 2017 and Holbrook, et al., 2018, Holbrook 2019 demonstrate that Forest Plan di-

rection is not adequate for lynx viability and recovery, as the FS assumes. Holbrook 2019 such all lynx habitat must be surveyed. You have not done this.

The Forest Plan/FEIS fail to describe the quantity and quality of habitat that is necessary to sustain the viability of the Canada lynx.

Significantly, in the 2018 order, this Court explained that consultation on the Northern Rockies Lynx Management Direction, commonly referred to as the “Lynx Amendment,” was not sufficient in part because the Lynx Amendment only applies to mapped “lynx habitat” on the Forest. *Id.* at 1070. Thus, areas on the Forest where lynx “may be present” that are not mapped as “lynx habitat” are not covered by the Lynx Amendment consultation. *Id.* Accordingly, the primary purpose of the 2018 remand was for the agencies to consult on the entire Forest, including areas of the Forest that are not mapped as “lynx habitat” but where lynx nonetheless “may be present.” See *id.*

On August 24, 2021, the agencies filed a second motion to dissolve the injunction. The agencies provide the Court with a new 2021 Biological Assessment and Biological Opinion for the Forest Plan. Doc. 93-9 (Biological Assessment); Doc. 93-1 (Biological Opinion). However, this new consultation suffers from the same flaw that the Court found with the Lynx Amendment consultation in its 2018 order – the analysis is incomplete because it addresses mapped “lynx habitat” where the Lynx Amendment applies, instead of all areas where lynx “may be present” on the Forest. For this reason, the motion to dissolve the injunc-

tion should be denied. Alternatively, or in addition, dissolution is not equitable at this time because the agencies have unlawfully stripped legal protections for lynx from 1.1 million acres during the remand in this case. Accordingly, this Project should not move forward until the agencies comply with their legal obligations under the ESA, NEPA, and NFMA regarding this de facto Forest Plan amendment that removed lynx protections on almost one-third of the Forest.

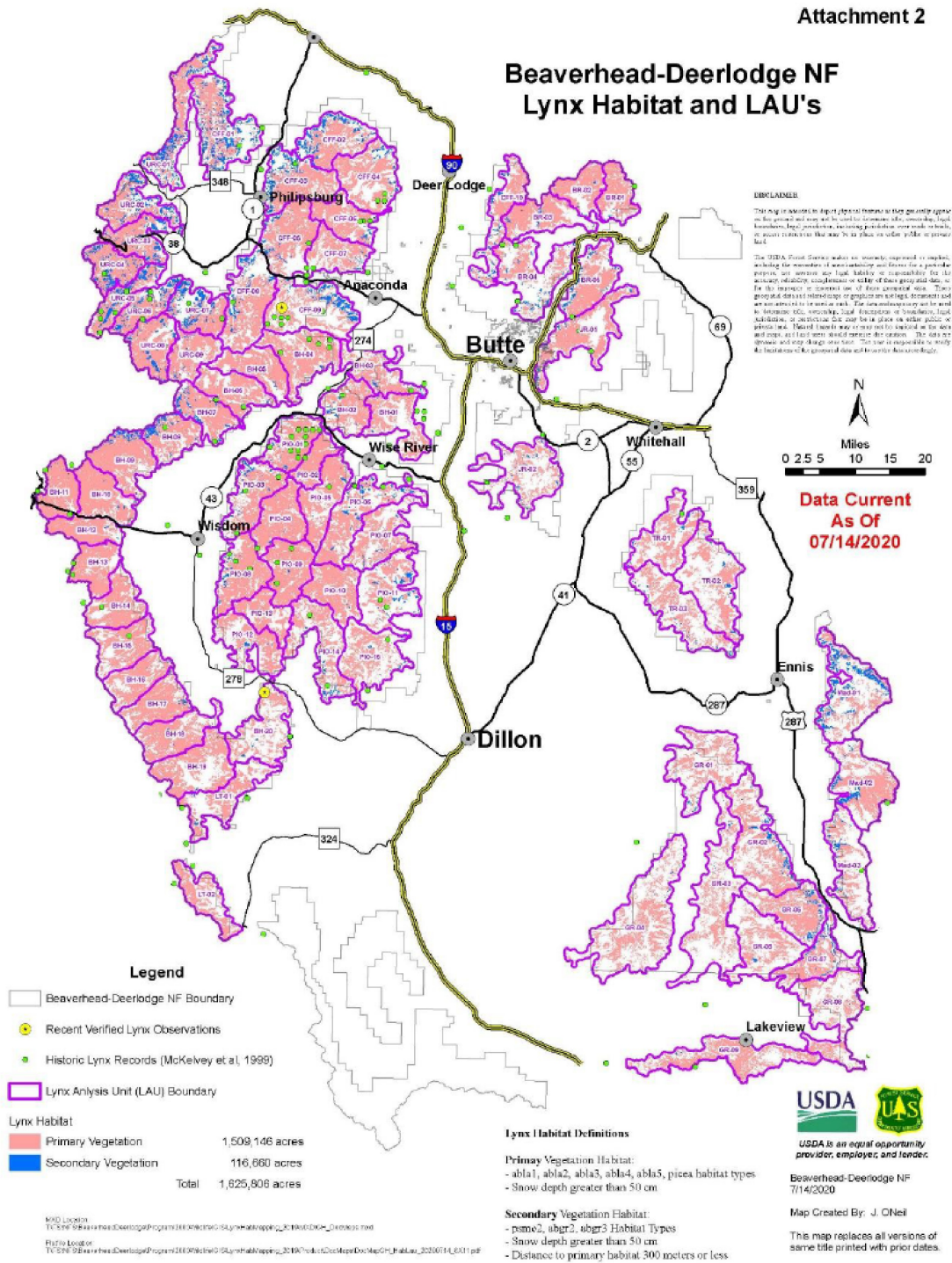
As set forth below in more detail, this case is similar to Native Ecosystems in that the agencies engaged in a new ESA consultation on remand, but the consultation does not contain the analysis ordered by the Court in its 2018 remand order. Thus, in this case, as in Native Ecosystems, the motion to dissolve the injunction should be denied. Furthermore, during the remand for this case, the Forest Service has effectively issued a programmatic Forest Plan amendment with its decision to strip away protections for lynx from 1.1 million acres of the Forest. This removal of protections for lynx applies to the Fleecer Project. However, the agencies did not conduct any NEPA or NFMA analysis or ESA consultation for this de facto Forest Plan amendment. Thus, for this additional reason, dissolution of the injunction may be denied because the dissolution is not equitable under these circumstances.

The new Forest Plan consultation addresses effects to lynx within mapped “lynx habitat,” but does not address the effects to lynx in areas that are not mapped “lynx habitat” but

where lynx “may be present,” which was the purpose of the remand.

The Beaverhead-Deerlodge National Forest covers approximately 3.4 million acres. Doc. 93-9 at 10.¹ In 2020, the agencies mapped approximately 1.5 million acres of the Forest as “lynx habitat.” Doc. 93-9 at 17 (Table 5). The agencies consider these areas of mapped “lynx habitat” to be “occupied” by lynx. Doc. 93-9 at 6. However, these areas of mapped “lynx habitat” do not directly correspond to areas of known lynx detections, both historic and recent. Doc. 93-9 at 100. The map below shows area of mapped “lynx habitat” in color, with green and yellow circles to indicate known historic and recent detections:

Beaverhead-Deerlodge NF Lynx Habitat and LAU's



As noted above, the agencies have determined that lynx “may be present” across the entire Forest. Krueger, 348 F.Supp.3d at 1068. Thus, while approximately 1.5 million acres of the Forest is mapped “lynx habitat,” Doc. 93-9 at 17, another 1.9 million acres (more than half the Forest) is not mapped “lynx habitat,” but still constitutes an area where lynx “may be present,” see Doc. 93-9 at 10; Krueger, 348 F.Supp.3d at 1068.

In its 2018 remand order in this case, this Court held:

Because there are provisions of the Forest Plan other than the Lynx Amendment that “may affect” lynx outside of the areas protected by the Lynx Amendment, and because the FWS determined that lynx “may be present” throughout the forest, a plaintiff may still bring a section 7 consultation claim to the broader Forest Plan itself. See Native Ecosystems Council v. Marten, 334 F.Supp.3d 1124, 1131, 2018 WL 3831339, at *4 (D. Mont. Aug. 13, 2018) (stating that “the Lynx Amendment only applies to mapped lynx habitat on National Forest System land presently occupied by Canada lynx” and holding that a forest-wide determination that lynx “may be present” arguably requires consultation of an agency action that “may affect” lynx but where “compliance with the Lynx Amendment is not required.”) Such is the case here.

The Forest Service must complete an ESA consultation for the Forest Plan that includes an analysis of how lynx may be affected on areas of this Forest that are not mapped “lynx habitat” but nonetheless are areas where lynx “may be present.” Id. As noted above, that area is 1.9 million

acres. The agencies have not complied with the remand order in this case because they have not yet provided this analysis.

In the January 4, 2021, Forest Plan Biological Assessment, the Forest Service uses “the 2020 updated lynx habitat model to disclose potential effects and set the current existing conditions.”

As the agency summarizes: “Impacts to lynx and their habitat have been considered in the context of the modeled lynx habitat on the Forest, vegetation conditions, anticipated amount and distribution of forest activities (e.g., timber projects, recreation expansion), and guidance within the Forest Plan and the Northern Rockies Lynx Management Direction. Since all areas of modeled lynx habitat are considered occupied, lynx are presumed to be present, including both resident or dispersing.” Furthermore, regarding cumulative impacts, the Forest Service discloses: “[f]or this analysis, the cumulative effects boundary consists of all 2020 modeled lynx habitat both within and outside of the [Beaverhead-Deerlodge National Forest].”

Similarly, the FWS’s responsive 2021 Forest Plan Biological Opinion states: “In order to fully address effects of implementing the 2009 Revised Forest Plan, the Forest provided lynx habitat information. The information provided consists of a broad scale estimate of lynx habitat across the Forest intended to provide an overall picture of the current status of lynx habitat.” Doc. 93-1 at 9 (emphases added). FWS then summarizes the analysis of effects to mapped lynx habitat set forth in the Forest Service Biological As-

assessment. FWS also provides an analysis of only those portions of existing projects that “occur within mapped lynx habitat” Doc. 93-1 at 29.

Both the Forest Plan Biological Assessment and Forest Plan Biological Opinion limit their analyses to effects to mapped lynx habitat, which is now considered to be “occupied.” However, in the Fleecer case, the federal district court remanded to the agencies to address all potential effects to lynx across the entire Forest, specifically including those areas that are not mapped as “lynx habitat.” As noted above, the areas that are not mapped as “lynx habitat” where lynx nonetheless “may be present” constitute approximately 1.9 million acres across the Forest.

The federal district court denied a motion to dissolve under similar circumstances in the Fleecer project. In that case, this Court “enjoined Defendants from proceeding with their project until Defendants conducted a site-specific biological opinion for both Canada lynx and grizzly bear.” Subsequently, the Forest Service “submitted a new biological opinion for both grizzly bear and Canada lynx. . . [and sought] dissolution of the injunction.” *Id.* This Court then held:

“The Court’s order required the new biological opinion to analyze “all logging associated activities.” . . . The new biological opinion fails to contemplate any effects on grizzly bear from the logging activity itself Defendants have failed to comply, therefore, with this Court’s order to conduct a new biological opinion that analyzes the impacts to grizzly bears of “all logging associated activities.””

The Court further enjoined the Fleecer project until the Forest Service conducted a new biological opinion that analyzed project impacts on Canada lynx. The previous first-tier biological opinion required a site-specific biological opinion to consider whether assumptions made in the original biological opinion were valid. . . . The Forest Service failed to consider, however, whether these vegetation treatment projects are affecting lynx in the way anticipated by the 2007 Biological Opinion. Without that analysis, the second-tier Biological Opinion fails to perform the role anticipated in the first-tier biological opinion.

The same is true here. The Forest Service failed to conduct the biological opinion ordered by the Court in the Fleecer project. Thus, the motion to dissolve was denied. The agencies must prepare a consultation that analyzes potential effects on lynx on the entire 3.4 million acre Forest – not just mapped lynx habitat on less than half the Forest.

The Forest Service and the FWS have not yet analyzed effects on lynx across the entire Forest as required by the 2018 remand order; instead, their consultation addresses mapped lynx habitat. However, mapped lynx habitat is less than half of the Forest, and there are still another 1.9 million acres of Forest that are not mapped lynx habitat but nonetheless satisfy the “may be present” threshold. Thus, the agencies have not yet provided Plaintiffs with all of the relief they seek.

The agencies' decision to remap "lynx habitat" in order to remove Lynx Amendment protections from 1.1 million acres on the Forest is a Forest Plan amendment under NFMA, a major federal action under NEPA, and an agency action under the ESA. Thus, NEPA analysis and ESA consultation must occur for this change in management – and the Forest Service must issue a Forest Plan amendment that complies with the 2012 NFMA planning regulations – before the Selway Saginaw Project may move forward.

The Forest Service unlawfully stripped legal protections from lynx across 1.1 million acres of the Forest without conducting the legally required analyses. Both the District of Idaho and District of Oregon hold that the remapping of lynx habitat requires analysis under NFMA, NEPA, and/or the ESA. *Oregon Nat. Res. Council Fund v. Forsgren*, 252 F.Supp.2d 1088, 1104 (D. Or. 2003)(addressing NFMA and NEPA); *Native Ecosystems Council & All. for the Wild Rockies v. U.S. Forest Serv. ex rel. Davey*, 866 F.Supp.2d 1209, 1231 (D. Id. 2012)(addressing ESA and NEPA).

Accordingly, this Project should not move forward until the agencies comply with their legal obligations under the ESA, NEPA, and NFMA regarding this de facto Forest Plan amendment that removed lynx protections on almost one-third of the Forest during the remand in this case. This Court may address this issue in its equitable discretion. However, if it declines to do so, Plaintiffs will file a new action and request injunctive relief in that action.

NEPA requires an agency to prepare an EIS for all "major Federal actions significantly affecting the quality of the

human environment.” 42 U.S.C. §4332(2)(C). Major federal actions include “new or revised agency . . . plans, policies, or procedures” including “official documents prepared or approved by Federal agencies which prescribe alternative uses of Federal resources, upon which future agency actions will be based.” 40 C.F.R. §1508.1 (q)(2), (3)(ii).

The remapping of “lynx habitat” is a major federal action under NEPA that requires either an EIS or an EA. Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1104-07; Native Ecosystems Council, 866 F.Supp.2d at 1231.

Furthermore, ESA consultation is required for “any agency action” that “may affect” a listed species in an area where a listed species “may be present.”

16 U.S.C. §1536(c). The ESA defines agency action as “any action authorized, funded, or carried out by [a federal] agency.” 16 U.S.C. §1536(a)(2). In *Karuk Tribe of California v USFS*, the en banc Ninth Circuit held that “[t]here is ‘little doubt’ that Congress intended agency action to have a broad definition in the ESA” 681 F.3d 1006, 1020-21 (9th Cir.2012)(citations omitted). Thus, the “‘agency action’ inquiry is two-fold. First, we ask whether a federal agency affirmatively authorized, funded, or carried out the underlying activity. Second, we determine whether the agency had some discretion to influence or change the activity for the benefit of a protected species.” *Id.* The remapping of “lynx habitat” is an agency action that requires ESA consultation. *Native Ecosystems Council*, 866 F.Supp.2d at 1232-33.

Finally, NFMA requires a forest plan amendment for any actions that “add, modify, or remove one or more [forest] plan components, or [] change how or where one or more plan components apply to all or part of the [forest] plan area (including management areas or geographic areas).” 36 C.F.R. §219.13(a). Remapping “lynx habitat” requires a forest plan amendment. Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1101-04.

Regardless of whether a forest plan amendment is deemed “significant” in the NFMA context, see 16 U.S.C. §1604 (f) (4), the Forest Service must provide for public participation, public notification, and NEPA compliance in conjunction with the amendment, 36 C.F.R. §219.13(b)(2)-(3). “The appropriate NEPA documentation for an amendment may be an [EIS], an environmental assessment, or a categorical exclusion, depending upon the scope and scale of the amendment and its likely effects.” 36 C.F.R. §219.13(b) (3).

Furthermore, regardless of whether a forest plan amendment is “significant” under NFMA, any substantive protections in the 2012 NFMA planning regulations that are “directly relevant” to the forest plan amendment must be applied. 36 C.F.R. §219.13(b)(5); see *Sierra Club, Inc. v. USFS*, 897 F.3d 582, 601 (4th Cir. 2018)(remanding for application of substantive protections of the 2012 planning regulations to a non-significant forest plan amendment).

Finally, a de facto forest plan amendment cannot be lawfully categorized and dismissed as a mere “administrative change” unless it involves only “corrections of clerical er-

rors to any part of the plan, conformance of the plan to new statutory or regulatory requirements, or changes to other content in the plan (§ 219.7(f)).” 36 C.F.R. §219.13(c).

“Changes to other content in the plan” is a term of art that includes only watershed identification, the plan’s roles and contributions in the broader landscape, the monitoring program, proposed and possible actions, and potential management approaches or strategies and partnership opportunities or coordination activities.” 36 C.F.R. §219.7(f).

During the remand in the Fleecer case, the agencies determined that the Beaverhead-Deerlodge National Forest is now “occupied” by lynx. This change in status means that compliance with the Lynx Amendment is now mandatory for all site-specific projects on the Forest, but only within the lands that are mapped as “lynx habitat.”

Accordingly, in 2020, the agencies remapped “lynx habitat” on the Forest.

The result of the remapping was that the agencies removed approximately 1.1 million acres from the “lynx habitat” designation, and thereby removed the protections of the Lynx Amendment standards from those 1.1 million acres of Forest:

Table 4. Comparison of lynx habitat acres, number of lynx analysis units, and the range of habitat within lynx analysis units between mapping efforts.

Metric	2001 mapping effort	2020 mapping effort	Difference
Lynx habitat (acres)	2,711,422	1,625,806	-1,085,616
Lynx analysis units (number)	509	78	-431
Range of lynx habitat within LAUs (acres)	0-24,101	12,603 - 29,880	Minimum +12,603 Maximum +5,779

Additionally, the agencies reduced the number of “Lynx Analysis Units” from 509 to 78, and increased the size of individual Lynx Analysis Units so that more acres can be logged before the percentage limits for logging in each unit are reached..

The remapping of “lynx habitat” requires an EA or EIS under NEPA.

As both the District of Idaho and District of Oregon have already held, the remapping of “lynx habitat” constitutes a major federal action under NEPA, which requires either an EA or EIS. Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1104-07; Native Ecosystems, 866 F.Supp.2d at 1231. In the Selway Saginaw Project as well, the new mapping re-categorizes thousands of acres of “lynx habitat” out of existence and thereby paves the way for future projects to authorize logging and other activities in those areas, even if those activities would have been previously prohibited in those same areas under the Lynx Amendment. This is not a minor change: instead, this changes strips away Lynx Amendment protections from approximately 1.1 million acres across the Forest. \

This significant change in management of the Forest requires a complete analysis under NEPA. Native Ecosystems, 866 F.Supp.2d at 1231. As the District of Idaho held:

“The 2005 map was a document officially approved by the Forest Service. . . . There also seems to be little room for debate over whether the 2005 map ultimately governs “uses of Federal resources, upon which future agency actions will be based.” []. Without the adoption of the 2005 map—and the attendant elimination of nearly 400,000 acres of land within [Lynx Analysis Units] —the Project area would have been subject to the restrictions contained in the Lynx [Amendment] With the adoption of the 2005 map, the 390,900 acres of previously restricted land was opened for uses that were not available without the adoption of the map.”

The 2005 map . . . eliminated almost 400,000 acres of land that was previously subject to greater environmental restrictions under the Lynx [Amendment]. . . . the map was never subjected to independent NEPA review, which would have required an analysis of the potential [e]ffects . . . on the lynx, its habitat, and the habitat of the snowshoe hare. Such analysis is absent in this case. The absence of such analysis violates NEPA’s procedural requirements

Similarly in the BDNF, “[w]ith the adoption of the [2020] map, the [1.1 million] acres of previously restricted land was opened for uses that were not available without the

adoption of the map.”. “[T]he map was never subjected to independent NEPA review, which would have required an analysis of the potential [e]ffects . . . on the lynx, its habitat, and the habitat of the snowshoe hare. Such analysis is absent in this case. The absence of such analysis violates NEPA’s procedural requirements”

And, as the District of Oregon similarly held:

“Defendants have substantially minimized the effects of the new mapping direction. The new mapping direction was far more than the result of day-to-day inventory-taking. It significantly changed the nature and the extent of lynx habitat, and the consequences to the lynx may be far-reaching. It has been used by the [Forest Service] to reduce the recognized primary lynx habitat within the Forest by thousands of acres The Court finds Defendants, at the least, were required under NEPA to prepare an Environmental Assessment with public involvement to determine whether the new mapping direction might significantly affect the lynx in the Forest and whether Defendants should prepare an EIS.

Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1105. The same result is required in this case.”

The remapping of “lynx habitat” requires ESA consultation.

In addition to requiring NEPA analysis, the remapping of lynx habitat also requires ESA consultation. The remapping of lynx habitat on the Forest is an agency action under the ESA because it was “authorized, funded, or carried out by [a federal] agency.” 16 U.S.C. §1536(a)(2). Additionally,

“the agency had some discretion to influence or change the activity for the benefit of a protected species.” Karuk Tribe, 681 F.3d at 1021.

In Native Ecosystems, the District of Idaho found that ESA consultation was required to address the impacts on lynx from the remapping decision. 866 F.Supp.2d at 1231-33.

The court held: “Defendants argue that, because a jeopardy determination was made for the standards contained in the Lynx [Amendment], and those standards were used in revising the [Lynx Analysis Unit] map in 2005, the agencies satisfied their obligations under the ESA. The Court does not agree.” Id. at 1232. The court found that the Lynx Amendment “biological opinion from 2007 does not assess the validity of the 2005 map” and that the agencies should have evaluated whether “the elimination of 390,900 acres of land within the boundaries of [Lynx Analysis Unit]s in the 2005 map would adversely affect the lynx or its habitat.” Id.

Similarly, in this case, the agencies must prepare an ESA consultation that evaluates whether “the elimination of [1.1 million] acres of land within the boundaries of [Lynx Analysis Unit]s in the [2020] map would adversely affect the lynx or its habitat.” See id.

The remapping of “lynx habitat” requires a Forest Plan amendment.

Finally, the remapping of “lynx habitat” is a Forest Plan amendment that requires analysis under NFMA. Removing Forest Plan Lynx Amendment protections from approximately 1.1 million acres, reducing the number of Lynx

Analysis Units on the Forest from 509 to 78, and increasing the size of individual Lynx Analysis Units so that more acres can be logged before the Lynx Amendment percentage limits for logging in each unit are reached, are changes that “add, modify, or remove one or more [forest] plan components, or [] change how or where one or more plan components apply to all or part of the [forest] plan area (including management areas or geographic areas).” 36 C.F.R. §219.13(a).

More specifically, the remapping of lynx habitat “change[s] how or where” the Lynx Amendment protections apply to this Forest because these protections no longer apply to 1.1 million acres of the Forest. Furthermore, stripping Forest Plan protections from 1.1 million acres – approximately one-third of the Forest – could not be reasonably construed as a mere “administrative change” because such an action does not fall with the narrow regulatory definition of “administrative change.” 36 C.F.R. §§219.13(c), 219.7(f).

The District of Oregon held that remapping lynx habitat requires a forest plan amendment:

“the revision of the [Lynx Conservation Assessment Strategy] and the new mapping direction were not merely part of the day-to-day operations of the FS like the less substantial actions taken by the FS and BLM in the cases on which Defendants primarily rely. The court’s concerns in *Prairie Woods Products* regarding the absence of discernible limits to the discretion of the FS to forego or to forestall formal amendment procedures with their concomitant public involvement also are concerns in this case. . . . Whether

based on a theory of a de facto amendment or a failure to act to amend, therefore, the Court concludes an order compelling the public involvement required by NFMA is warranted as to these timber sales.

Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1101.

The court further found that the Forest Service's action violated the substantive provisions of the NFMA planning regulations."

Similarly, in *House v. USFS*, the Eastern District of Kentucky found that changes to management direction for the Indiana bat constituted a forest plan amendment under NFMA. 974 F.Supp. 1022, 1034 (E.D. Ky. 1997). The court found: "these policies may not be implemented until the Forest Plan has been properly amended to include the same."

Likewise, in *Klamath Siskiyou Wildlands Ctr. v. Boody*, the Ninth Circuit found that changes to management direction for the red tree vole constituted an amendment of a Bureau of Land Management Resource Management Plan under the Federal Land Policy and Management Act. 468 F.3d 549, 558 (9th Cir. 2006). The court held: "if BLM can modify the protection afforded a species under a resource management plan as dramatically as it has here — without complying with [the amendment regulation] — BLM could ultimately remove all the Survey and Manage designations without ever conducting another EA or EIS, and without providing public disclosure. Such steps would undoubtedly run contrary to both the goals and language of [Federal Land Policy and Management Act.]" *Id.*

Here too, if the Forest Service “can modify the protection afforded [lynx] under a [forest] plan as dramatically as it has here—without complying with [the amendment regulation] — [the Forest Service] could ultimately remove all the [lynx habitat] designations without ever conducting another EA or EIS, and without providing public disclosure. Such steps would undoubtedly run contrary to both the goals and language of [NFMA].” The preparation of a Forest Plan amendment is not an empty procedural exercise because all relevant substantive protections from the 2012 NFMA planning regulations must be applied to a forest plan amendment. More specifically, for each amendment, the Forest Service must “[d]etermine which specific substantive requirement(s) within §§219.8 through 219.11 are directly related to the plan direction being added, modified, or removed by the amendment and apply such requirement(s) within the scope and scale of the amendment.” 36 C.F.R. §219.13(b)(5); see *Sierra Club*, 897 F.3d at 601 (remanding for application of substantive protections of the 2012 planning regulations to a non-significant forest plan amendment). The application of these substantive regulatory protections may ultimately result in a decision that alters – and is more protective of lynx – than the current 2020 remapping of “lynx habitat.”

For all of these reasons, the agencies must complete NEPA, ESA, and NFMA analysis for the 2020 remapping of “lynx habitat” on the Forest. Until those analyses are completed in a lawful manner, the Selway Saginaw Project can not go forward because the Project analysis is unlawfully premised upon the acceptance and implementation of the

new map of lynx habitat “like a house of cards built on an unsound foundation.” Native Ecosystems, 866 F.

Remedy: Choose the No Action Alternative or write an EIS that fully complies with the law. Also please formally consult with the U.S. FWS on the impact of the project and the impact of eliminating all of the LAUs on lynx.

Squires found that lynx avoid clearcuts for up to 50 years. A big problem with the Forest Plan and the NRLMD is that it allows with few exceptions the same level of industrial forest management activities that occurred prior to Canada lynx ESA listing. The FS approval and implementation of the NRLMD and the revised Beaverhead-Deerlodge National Forest Forest Plan is arbitrary and capricious, violates NEPA’s hard look requirement and scientific integrity mandate and fails to apply the best available science necessary to conserve lynx.

The NRLMD or the revised BDNF Forest Plan contain no protection or standard for conservation of winter lynx habitat (old growth forests).

Recent scientific findings undermine the Forest Plan/NRLMD direction for management of lynx habitat. This creates a scientific controversy the FS fails to resolve, and in fact it essentially ignores it.

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

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

First, we demonstrated that lynx clearly use silviculture treatments, but there is a ~10 year cost of implementing any treatment (thinning, selection cut, or regeneration cut) in terms of resource use by Canada lynx. This temporal cost is associated with lynx preferring advanced regenerating and mature structural stages (Squires et al., 2010; Holbrook et al., 2017a) and is consistent with previous work demonstrating a negative effect of precommercial thinning

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

So Holbrook et al., 2018 fully contradict Forest Plan assumptions that clearcuts/regeneration can be considered useful lynx habitat as early as 20 years post-logging.

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

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

The Forest Plan/FEIS fail to describe the quantity and quality of habitat that is necessary to sustain the viability of the Canada lynx.

Significantly, in the 2018 order, this Court explained that consultation on the Northern Rockies Lynx Management Direction, commonly referred to as the “Lynx Amendment,” was not sufficient in part because the Lynx Amendment only applies to mapped “lynx habitat” on the Forest. *Id.* at 1070. Thus, areas on the Forest where lynx “may be present” that are not mapped as “lynx habitat” are not covered by the Lynx Amendment consultation. *Id.* Accordingly, the primary purpose of the 2018 remand was for the agencies to consult on the entire Forest, including areas of the Forest that are not mapped as “lynx habitat” but where lynx nonetheless “may be present.” See *id.*

On August 24, 2021, the agencies filed a second motion to dissolve the injunction. The agencies provide the Court with a new 2021 Biological Assessment and Biological Opinion for the Forest Plan. Doc. 93-9 (Biological Assessment); Doc. 93-1 (Biological Opinion). However, this new consultation suffers from the same flaw that the Court found with the Lynx Amendment consultation in its 2018 order – the analysis is incomplete because it addresses mapped “lynx habitat” where the Lynx Amendment applies, instead of all areas where lynx “may be present” on the Forest. For this reason, the motion to dissolve the injunction should be denied. Alternatively, or in addition, dissolution is not equitable at this time because the agencies have unlawfully stripped legal protections for lynx from 1.1 million acres during the remand in this case. Accordingly, this Project should not move forward until the agencies comply with their legal obligations under the ESA, NEPA, and NFMA regarding this de facto Forest Plan amendment that removed lynx protections on almost one-third of the Forest.

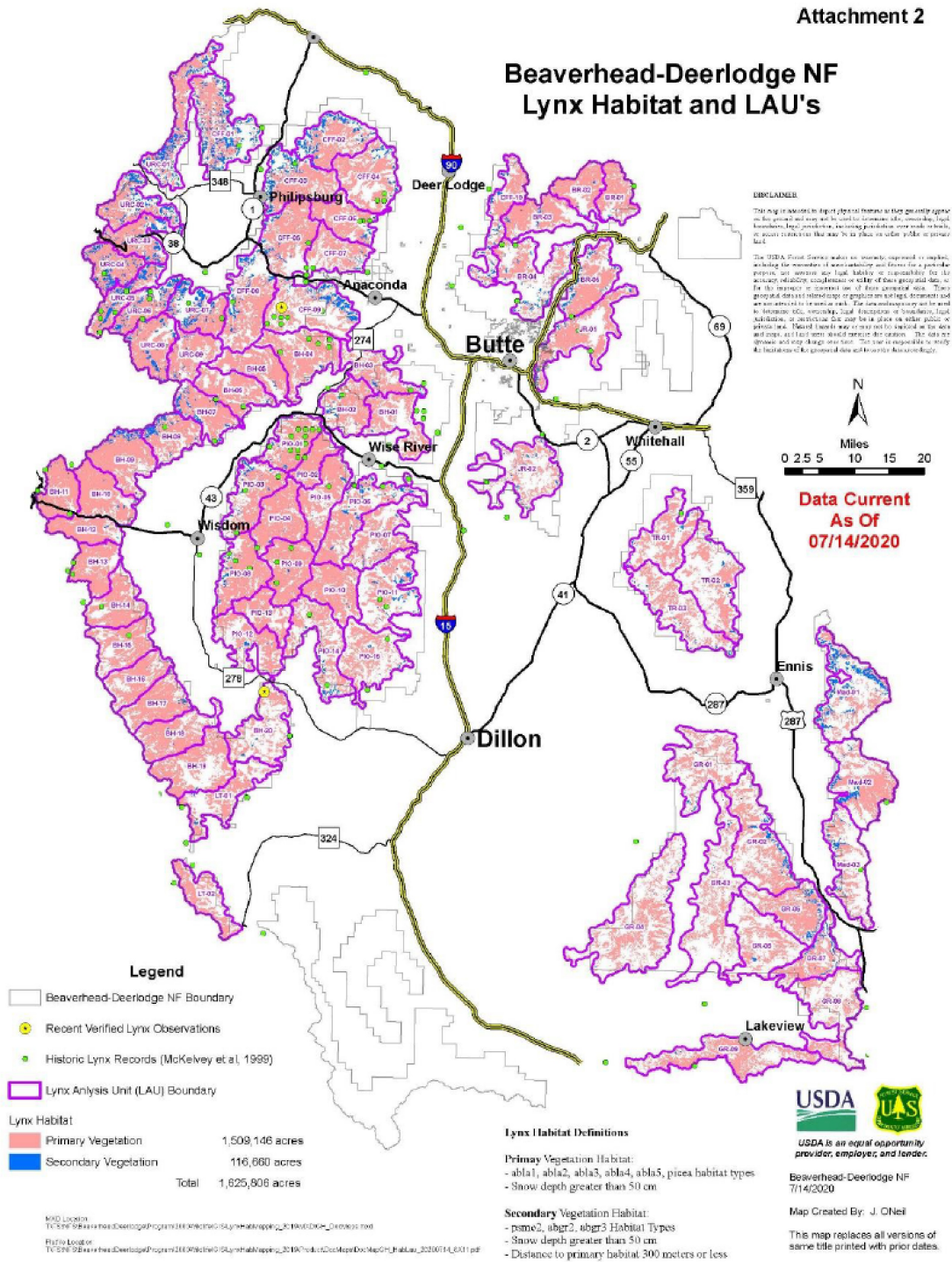
As set forth below in more detail, this case is similar to Native Ecosystems in that the agencies engaged in a new ESA consultation on remand, but the consultation does not contain the analysis ordered by the Court in its 2018 remand order. Thus, in this case, as in Native Ecosystems, the motion to dissolve the injunction should be denied. Furthermore, during the remand for this case, the Forest Service has effectively issued a programmatic Forest Plan amendment with its decision to strip away protections for lynx from 1.1 million acres of the Forest. This removal of protections for lynx applies to the Fleece Project. However,

the agencies did not conduct any NEPA or NFMA analysis or ESA consultation for this de facto Forest Plan amendment. Thus, for this additional reason, dissolution of the injunction may be denied because the dissolution is not equitable under these circumstances.

The new Forest Plan consultation addresses effects to lynx within mapped “lynx habitat,” but does not address the effects to lynx in areas that are not mapped “lynx habitat” but where lynx “may be present,” which was the purpose of the remand.

The Beaverhead-Deerlodge National Forest covers approximately 3.4 million acres. Doc. 93-9 at 10.¹ In 2020, the agencies mapped approximately 1.5 million acres of the Forest as “lynx habitat.” Doc. 93-9 at 17 (Table 5). The agencies consider these areas of mapped “lynx habitat” to be “occupied” by lynx. Doc. 93-9 at 6. However, these areas of mapped “lynx habitat” do not directly correspond to areas of known lynx detections, both historic and recent. Doc. 93-9 at 100. The map below shows area of mapped “lynx habitat” in color, with green and yellow circles to indicate known historic and recent detections:

Beaverhead-Deerlodge NF Lynx Habitat and LAU's



As noted above, the agencies have determined that lynx “may be present” across the entire Forest. Krueger, 348 F.Supp.3d at 1068. Thus, while approximately 1.5 million acres of the Forest is mapped “lynx habitat,” Doc. 93-9 at 17, another 1.9 million acres (more than half the Forest) is not mapped “lynx habitat,” but still constitutes an area where lynx “may be present,” see Doc. 93-9 at 10; Krueger, 348 F.Supp.3d at 1068.

In its 2018 remand order in this case, this Court held:

Because there are provisions of the Forest Plan other than the Lynx Amendment that “may affect” lynx outside of the areas protected by the Lynx Amendment, and because the FWS determined that lynx “may be present” throughout the forest, a plaintiff may still bring a section 7 consultation claim to the broader Forest Plan itself. See Native Ecosystems Council v. Marten, 334 F.Supp.3d 1124, 1131, 2018 WL 3831339, at *4 (D. Mont. Aug. 13, 2018) (stating that “the Lynx Amendment only applies to mapped lynx habitat on National Forest System land presently occupied by Canada lynx” and holding that a forest-wide determination that lynx “may be present” arguably requires consultation of an agency action that “may affect” lynx but where “compliance with the Lynx Amendment is not required.”) Such is the case here.

The Forest Service must complete an ESA consultation for the Forest Plan that includes an analysis of how lynx may be affected on areas of this Forest that are not mapped “lynx habitat” but nonetheless are areas where lynx “may be present.” Id. As noted above, that area is 1.9 million

acres. The agencies have not complied with the remand order in this case because they have not yet provided this analysis.

In the January 4, 2021, Forest Plan Biological Assessment, the Forest Service uses “the 2020 updated lynx habitat model to disclose potential effects and set the current existing conditions.”

As the agency summarizes: “Impacts to lynx and their habitat have been considered in the context of the modeled lynx habitat on the Forest, vegetation conditions, anticipated amount and distribution of forest activities (e.g., timber projects, recreation expansion), and guidance within the Forest Plan and the Northern Rockies Lynx Management Direction. Since all areas of modeled lynx habitat are considered occupied, lynx are presumed to be present, including both resident or dispersing.” Furthermore, regarding cumulative impacts, the Forest Service discloses: “[f]or this analysis, the cumulative effects boundary consists of all 2020 modeled lynx habitat both within and outside of the [Beaverhead-Deerlodge National Forest].”

Similarly, the FWS’s responsive 2021 Forest Plan Biological Opinion states: “In order to fully address effects of implementing the 2009 Revised Forest Plan, the Forest provided lynx habitat information. The information provided consists of a broad scale estimate of lynx habitat across the Forest intended to provide an overall picture of the current status of lynx habitat.” Doc. 93-1 at 9 (emphases added). FWS then summarizes the analysis of effects to mapped lynx habitat set forth in the Forest Service Biological As-

assessment. FWS also provides an analysis of only those portions of existing projects that “occur within mapped lynx habitat” Doc. 93-1 at 29.

Both the Forest Plan Biological Assessment and Forest Plan Biological Opinion limit their analyses to effects to mapped lynx habitat, which is now considered to be “occupied.” However, in the Fleecer case, the federal district court remanded to the agencies to address all potential effects to lynx across the entire Forest, specifically including those areas that are not mapped as “lynx habitat.” As noted above, the areas that are not mapped as “lynx habitat” where lynx nonetheless “may be present” constitute approximately 1.9 million acres across the Forest.

The federal district court denied a motion to dissolve under similar circumstances in the Fleecer project. In that case, this Court “enjoined Defendants from proceeding with their project until Defendants conducted a site-specific biological opinion for both Canada lynx and grizzly bear.” Subsequently, the Forest Service “submitted a new biological opinion for both grizzly bear and Canada lynx. . . [and sought] dissolution of the injunction.” *Id.* This Court then held:

“The Court’s order required the new biological opinion to analyze “all logging associated activities.” . . . The new biological opinion fails to contemplate any effects on grizzly bear from the logging activity itself Defendants have failed to comply, therefore, with this Court’s order to conduct a new biological opinion that analyzes the impacts to grizzly bears of “all logging associated activities.””

The Court further enjoined the Fleecer project until the Forest Service conducted a new biological opinion that analyzed project impacts on Canada lynx. The previous first-tier biological opinion required a site-specific biological opinion to consider whether assumptions made in the original biological opinion were valid. . . . The Forest Service failed to consider, however, whether these vegetation treatment projects are affecting lynx in the way anticipated by the 2007 Biological Opinion. Without that analysis, the second-tier Biological Opinion fails to perform the role anticipated in the first-tier biological opinion.

The same is true here. The Forest Service failed to conduct the biological opinion ordered by the Court in the Fleecer project. Thus, the motion to dissolve was denied. The agencies must prepare a consultation that analyzes potential effects on lynx on the entire 3.4 million acre Forest – not just mapped lynx habitat on less than half the Forest.

The Forest Service and the FWS have not yet analyzed effects on lynx across the entire Forest as required by the 2018 remand order; instead, their consultation addresses mapped lynx habitat. However, mapped lynx habitat is less than half of the Forest, and there are still another 1.9 million acres of Forest that are not mapped lynx habitat but nonetheless satisfy the “may be present” threshold. Thus, the agencies have not yet provided Plaintiffs with all of the relief they seek.

The agencies' decision to remap "lynx habitat" in order to remove Lynx Amendment protections from 1.1 million acres on the Forest is a Forest Plan amendment under NFMA, a major federal action under NEPA, and an agency action under the ESA. Thus, NEPA analysis and ESA consultation must occur for this change in management – and the Forest Service must issue a Forest Plan amendment that complies with the 2012 NFMA planning regulations – before the Trail Creek Project may move forward.

The Forest Service unlawfully stripped legal protections from lynx across 1.1 million acres of the Forest without conducting the legally required analyses. Both the District of Idaho and District of Oregon hold that the remapping of lynx habitat requires analysis under NFMA, NEPA, and/or the ESA. *Oregon Nat. Res. Council Fund v. Forsgren*, 252 F.Supp.2d 1088, 1104 (D. Or. 2003)(addressing NFMA and NEPA); *Native Ecosystems Council & All. for the Wild Rockies v. U.S. Forest Serv. ex rel. Davey*, 866 F.Supp.2d 1209, 1231 (D. Id. 2012)(addressing ESA and NEPA).

Accordingly, this Project should not move forward until the agencies comply with their legal obligations under the ESA, NEPA, and NFMA regarding this de facto Forest Plan amendment that removed lynx protections on almost one-third of the Forest during the remand in this case. This Court may address this issue in its equitable discretion. However, if it declines to do so, Plaintiffs will file a new action and request injunctive relief in that action.

NEPA requires an agency to prepare an EIS for all "major Federal actions significantly affecting the quality of the

human environment.” 42 U.S.C. §4332(2)(C). Major federal actions include “new or revised agency . . . plans, policies, or procedures” including “official documents prepared or approved by Federal agencies which prescribe alternative uses of Federal resources, upon which future agency actions will be based.” 40 C.F.R. §1508.1 (q)(2), (3)(ii).

The remapping of “lynx habitat” is a major federal action under NEPA that requires either an EIS or an EA. Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1104-07; Native Ecosystems Council, 866 F.Supp.2d at 1231.

Furthermore, ESA consultation is required for “any agency action” that “may affect” a listed species in an area where a listed species “may be present.”

16 U.S.C. §1536(c). The ESA defines agency action as “any action authorized, funded, or carried out by [a federal] agency.” 16 U.S.C. §1536(a)(2). In *Karuk Tribe of California v USFS*, the en banc Ninth Circuit held that “[t]here is ‘little doubt’ that Congress intended agency action to have a broad definition in the ESA” 681 F.3d 1006, 1020-21 (9th Cir.2012)(citations omitted). Thus, the “‘agency action’ inquiry is two-fold. First, we ask whether a federal agency affirmatively authorized, funded, or carried out the underlying activity. Second, we determine whether the agency had some discretion to influence or change the activity for the benefit of a protected species.” *Id.* The remapping of “lynx habitat” is an agency action that requires ESA consultation. Native Ecosystems Council, 866 F.Supp.2d at 1232-33.

Finally, NFMA requires a forest plan amendment for any actions that “add, modify, or remove one or more [forest] plan components, or [] change how or where one or more plan components apply to all or part of the [forest] plan area (including management areas or geographic areas).” 36 C.F.R. §219.13(a). Remapping “lynx habitat” requires a forest plan amendment. Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1101-04.

Regardless of whether a forest plan amendment is deemed “significant” in the NFMA context, see 16 U.S.C. §1604 (f) (4), the Forest Service must provide for public participation, public notification, and NEPA compliance in conjunction with the amendment, 36 C.F.R. §219.13(b)(2)-(3). “The appropriate NEPA documentation for an amendment may be an [EIS], an environmental assessment, or a categorical exclusion, depending upon the scope and scale of the amendment and its likely effects.” 36 C.F.R. §219.13(b) (3).

Furthermore, regardless of whether a forest plan amendment is “significant” under NFMA, any substantive protections in the 2012 NFMA planning regulations that are “directly relevant” to the forest plan amendment must be applied. 36 C.F.R. §219.13(b)(5); see *Sierra Club, Inc. v. USFS*, 897 F.3d 582, 601 (4th Cir. 2018)(remanding for application of substantive protections of the 2012 planning regulations to a non-significant forest plan amendment).

Finally, a de facto forest plan amendment cannot be lawfully categorized and dismissed as a mere “administrative change” unless it involves only “corrections of clerical er-

rors to any part of the plan, conformance of the plan to new statutory or regulatory requirements, or changes to other content in the plan (§ 219.7(f)).” 36 C.F.R. §219.13(c).

“Changes to other content in the plan” is a term of art that includes only watershed identification, the plan’s roles and contributions in the broader landscape, the monitoring program, proposed and possible actions, and potential management approaches or strategies and partnership opportunities or coordination activities.” 36 C.F.R. §219.7(f).

During the remand in the Fleecer case, the agencies determined that the Beaverhead-Deerlodge National Forest is now “occupied” by lynx. This change in status means that compliance with the Lynx Amendment is now mandatory for all site-specific projects on the Forest, but only within the lands that are mapped as “lynx habitat.”

Accordingly, in 2020, the agencies remapped “lynx habitat” on the Forest.

The result of the remapping was that the agencies removed approximately 1.1 million acres from the “lynx habitat” designation, and thereby removed the protections of the Lynx Amendment standards from those 1.1 million acres of Forest:

Table 4. Comparison of lynx habitat acres, number of lynx analysis units, and the range of habitat within lynx analysis units between mapping efforts.

Metric	2001 mapping effort	2020 mapping effort	Difference
Lynx habitat (acres)	2,711,422	1,625,806	-1,085,616
Lynx analysis units (number)	509	78	-431
Range of lynx habitat within LAUs (acres)	0-24,101	12,603 - 29,880	Minimum +12,603 Maximum +5,779

Additionally, the agencies reduced the number of “Lynx Analysis Units” from 509 to 78, and increased the size of individual Lynx Analysis Units so that more acres can be logged before the percentage limits for logging in each unit are reached..

The remapping of “lynx habitat” requires an EA or EIS under NEPA.

As both the District of Idaho and District of Oregon have already held, the remapping of “lynx habitat” constitutes a major federal action under NEPA, which requires either an EA or EIS. Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1104-07; Native Ecosystems, 866 F.Supp.2d at 1231. In the Trail Creek Project as well, the new mapping recategorizes thousands of acres of “lynx habitat” out of existence and thereby paves the way for future projects to authorize logging and other activities in those areas, even if those activities would have been previously prohibited in those same areas under the Lynx Amendment. This is not a minor change: instead, this changes strips away Lynx Amendment protections from approximately 1.1 million acres across the Forest. \

This significant change in management of the Forest requires a complete analysis under NEPA. Native Ecosystems, 866 F.Supp.2d at 1231. As the District of Idaho held:

“The 2005 map was a document officially approved by the Forest Service. . . . There also seems to be little room for debate over whether the 2005 map ultimately governs “uses of Federal resources, upon which future agency actions will be based.” []. Without the adoption of the 2005 map—and the attendant elimination of nearly 400,000 acres of land within [Lynx Analysis Units] —the Project area would have been subject to the restrictions contained in the Lynx [Amendment] With the adoption of the 2005 map, the 390,900 acres of previously restricted land was opened for uses that were not available without the adoption of the map.”

The 2005 map . . . eliminated almost 400,000 acres of land that was previously subject to greater environmental restrictions under the Lynx [Amendment]. . . . the map was never subjected to independent NEPA review, which would have required an analysis of the potential [e]ffects . . . on the lynx, its habitat, and the habitat of the snowshoe hare. Such analysis is absent in this case. The absence of such analysis violates NEPA’s procedural requirements

Similarly in the BDNF, “[w]ith the adoption of the [2020] map, the [1.1 million] acres of previously restricted land was opened for uses that were not available without the

adoption of the map.”. “[T]he map was never subjected to independent NEPA review, which would have required an analysis of the potential [e]ffects . . . on the lynx, its habitat, and the habitat of the snowshoe hare. Such analysis is absent in this case. The absence of such analysis violates NEPA’s procedural requirements”

And, as the District of Oregon similarly held:

“Defendants have substantially minimized the effects of the new mapping direction. The new mapping direction was far more than the result of day-to-day inventory-taking. It significantly changed the nature and the extent of lynx habitat, and the consequences to the lynx may be far-reaching. It has been used by the [Forest Service] to reduce the recognized primary lynx habitat within the Forest by thousands of acres The Court finds Defendants, at the least, were required under NEPA to prepare an Environmental Assessment with public involvement to determine whether the new mapping direction might significantly affect the lynx in the Forest and whether Defendants should prepare an EIS.

Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1105. The same result is required in this case.”

The remapping of “lynx habitat” requires ESA consultation.

In addition to requiring NEPA analysis, the remapping of lynx habitat also requires ESA consultation. The remapping of lynx habitat on the Forest is an agency action under the ESA because it was “authorized, funded, or carried out by [a federal] agency.” 16 U.S.C. §1536(a)(2). Additionally,

“the agency had some discretion to influence or change the activity for the benefit of a protected species.” Karuk Tribe, 681 F.3d at 1021.

In Native Ecosystems, the District of Idaho found that ESA consultation was required to address the impacts on lynx from the remapping decision. 866 F.Supp.2d at 1231-33.

The court held: “Defendants argue that, because a jeopardy determination was made for the standards contained in the Lynx [Amendment], and those standards were used in revising the [Lynx Analysis Unit] map in 2005, the agencies satisfied their obligations under the ESA. The Court does not agree.” Id. at 1232. The court found that the Lynx Amendment “biological opinion from 2007 does not assess the validity of the 2005 map” and that the agencies should have evaluated whether “the elimination of 390,900 acres of land within the boundaries of [Lynx Analysis Unit]s in the 2005 map would adversely affect the lynx or its habitat.” Id.

Similarly, in this case, the agencies must prepare an ESA consultation that evaluates whether “the elimination of [1.1 million] acres of land within the boundaries of [Lynx Analysis Unit]s in the [2020] map would adversely affect the lynx or its habitat.” See id.

The remapping of “lynx habitat” requires a Forest Plan amendment.

Finally, the remapping of “lynx habitat” is a Forest Plan amendment that requires analysis under NFMA. Removing Forest Plan Lynx Amendment protections from approximately 1.1 million acres, reducing the number of Lynx

Analysis Units on the Forest from 509 to 78, and increasing the size of individual Lynx Analysis Units so that more acres can be logged before the Lynx Amendment percentage limits for logging in each unit are reached, are changes that “add, modify, or remove one or more [forest] plan components, or [] change how or where one or more plan components apply to all or part of the [forest] plan area (including management areas or geographic areas).” 36 C.F.R. §219.13(a).

More specifically, the remapping of lynx habitat “change[s] how or where” the Lynx Amendment protections apply to this Forest because these protections no longer apply to 1.1 million acres of the Forest. Furthermore, stripping Forest Plan protections from 1.1 million acres – approximately one-third of the Forest – could not be reasonably construed as a mere “administrative change” because such an action does not fall with the narrow regulatory definition of “administrative change.” 36 C.F.R. §§219.13(c), 219.7(f).

The District of Oregon held that remapping lynx habitat requires a forest plan amendment:

“the revision of the [Lynx Conservation Assessment Strategy] and the new mapping direction were not merely part of the day-to-day operations of the FS like the less substantial actions taken by the FS and BLM in the cases on which Defendants primarily rely. The court’s concerns in *Prairie Woods Products* regarding the absence of discernible limits to the discretion of the FS to forego or to forestall formal amendment procedures with their concomitant public involvement also are concerns in this case. . . . Whether

based on a theory of a de facto amendment or a failure to act to amend, therefore, the Court concludes an order compelling the public involvement required by NFMA is warranted as to these timber sales.

Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1101. The court further found that the Forest Service's action violated the substantive provisions of the NFMA planning regulations."

Similarly, in *House v. USFS*, the Eastern District of Kentucky found that changes to management direction for the Indiana bat constituted a forest plan amendment under NFMA. 974 F.Supp. 1022, 1034 (E.D. Ky. 1997). The court found: "these policies may not be implemented until the Forest Plan has been properly amended to include the same."

Likewise, in *Klamath Siskiyou Wildlands Ctr. v. Boody*, the Ninth Circuit found that changes to management direction for the red tree vole constituted an amendment of a Bureau of Land Management Resource Management Plan under the Federal Land Policy and Management Act. 468 F.3d 549, 558 (9th Cir. 2006). The court held: "if BLM can modify the protection afforded a species under a resource management plan as dramatically as it has here — without complying with [the amendment regulation] — BLM could ultimately remove all the Survey and Manage designations without ever conducting another EA or EIS, and without providing public disclosure. Such steps would undoubtedly run contrary to both the goals and language of [Federal Land Policy and Management Act.]" *Id.*

Here too, if the Forest Service “can modify the protection afforded [lynx] under a [forest] plan as dramatically as it has here—without complying with [the amendment regulation] — [the Forest Service] could ultimately remove all the [lynx habitat] designations without ever conducting another EA or EIS, and without providing public disclosure. Such steps would undoubtedly run contrary to both the goals and language of [NFMA].” The preparation of a Forest Plan amendment is not an empty procedural exercise because all relevant substantive protections from the 2012 NFMA planning regulations must be applied to a forest plan amendment. More specifically, for each amendment, the Forest Service must “[d]etermine which specific substantive requirement(s) within §§219.8 through 219.11 are directly related to the plan direction being added, modified, or removed by the amendment and apply such requirement(s) within the scope and scale of the amendment.” 36 C.F.R. §219.13(b)(5); see *Sierra Club*, 897 F.3d at 601 (remanding for application of substantive protections of the 2012 planning regulations to a non-significant forest plan amendment). The application of these substantive regulatory protections may ultimately result in a decision that alters – and is more protective of lynx – than the current 2020 remapping of “lynx habitat.”

For all of these reasons, the agencies must complete NEPA, ESA, and NFMA analysis for the 2020 remapping of “lynx habitat” on the Forest. Until those analyses are completed in a lawful manner, the Trail Creek Project can not go forward because the Project analysis is unlawfully premised upon the acceptance and implementation of the new map of

lynx habitat “like a house of cards built on an unsound foundation.” Native Ecosystems, 866 F.

We wrote in our comments:

Rationale for the Proposed Logging is Not Supported by Science

The scoping notice identifies fire control and/or reduction of fire severity as one of the reasons for the project, However, the agency needs to also address opposing views on the benefits of logging to reduce fire, including those recently published in the Bozeman Daily Chronicle by Dr. McWethy, a Montana State University professor and fire scientist. He noted in the October 18 article that if we continue to respond to wildfires in the way we have in the past, people will continue to be vulnerable; houses are consistently rebuilt in wildfire-affected landscapes and most of the Forest Service budget goes toward preventing and fighting fires; fuel reduction projects have been shown to alter fire behavior if they’re targeted at small trees and small shrubs, but traditional logging project have not been shown to alter fire spread and behavior; data shows that if you remove small diameter woody fuels – shrubs and small saplings – it can drop a severe fire to a ground fire.

The proposed vast regeneration harvest proposed in the Selway Saginaw project will exacerbate the future poten-

tial for severe, uncharacteristic wildfire by creating large expanses of young regenerating forests, which fire experts call “fire bombs.”

The agency needs to support claims of fire control with this project by providing the current science as well as discussing opposing views, as is required by the NEPA.

The Agency Claims that Changes in Fire Frequency is the Cause of Conifer Encroachment is Invalid.

The scoping notice refers to a unpublished white paper by Barrett (2005) to support the rationale for slashing and burning ecotone habitat in the project area. There is an abundance of current published science that shows the fire cycles in sagebrush and adjacent ecotones are much longer than needed to exclude conifer expansion from adjacent forests into sagebrush areas. The NEPA requires that the agency use good data as well as the current best science in the analyses of project impacts, and this needs to be done for the Selway-Saginaw project in regards to natural fire regimes.

The Forest Service responded:

The fuels management purpose and need in the combined scoping and 30-day comment package was removed from the environmental assessment following further analysis and discussion. Please refer to the Proposed Action Updates section in the environmental assessment posted with

the draft decision notice, and the Vegetation section for the full effects analysis.

Fire bombs are not used to describe methods of regenerating forests on the Beaverhead-Deerlodge National Forest. We are not able to deduce who you reference as fire experts.

This is incorrect. Fuel reduction is still part of the purpose and need.

Page 9 of the EA states:

Purpose and Need for the Proposal

Conditions in the project area do not meet the Forest Plan goals or objectives described below.

Forested vegetation is mostly uniform, late seral or mature, stands of lodgepole pine

interspersed with snags created by the most recent bark beetle infestation. Conifers are

expanding into non-forest habitat types reducing sagebrush, meadow, and riparian habitat. To

address the gap between existing and desired condition, the Forest proposed the Selway-

Saginaw Vegetation Project to move conditions toward the following timber and vegetation management goals and objectives.

Timber Management

Lands Suitable for Timber Production:

Manage lands suitable for timber production for the growth and yield of sawtimber, crop trees, pulpwood, and other forest products, including salvage harvest.

Lands Not Suitable for Timber Production but Timber Harvest is Permitted to

Meet Other Resource Objectives:

Manage lands where timber harvest is allowed to protect other resource values. Resource objectives may include, but are not limited to, protection of wildland urban interface, protection of improvements, aquatic system restoration, fuel reduction, wildlife habitat enhancement, fisheries habitat enhancement, range improvement and grass and shrub land maintenance.

Product Utilization:

Forest products would be made available to provide economic benefits where project objectives, forest plan objectives, and forest plan standards can be met.

Vegetation

Resiliency

(Forest Plan Glossary)

:

Reduce forest density in the large size classes of dry forest communities and some lodgepole pine communities to maintain or improve resilient forest conditions.

Grassland/Shrubland/Riparian:

Reduce conifer encroachment on 74,000 acres of riparian areas, shrublands, and grasslands.

Lodgepole Pine Type:

Increase the number of acres in the 0 to 5-inch DBH class by approximately 74,000 acres, where one or more of the following circumstances occurs:

-

Where burned or insect infested stands are dead or dying (see Forest Plan Glossary).

-

Where needed to reduce the risk from wildfire for public and firefighter health and safety, or to protect structures, infrastructure, and municipal watersheds.

-

Where needed to meet objectives for lands suitable for timber production.

The FS must have a detailed long-term program for maintaining the allegedly safer conditions, including how areas will be treated in the future following proposed treatments, or how areas not needing treatment now will be treated as the need arises. The public at large and private landowners must know what the scale of the long-term efforts must be, including the amount of funding necessary, and the likelihood based on realistic funding scenarios for such a program to be adequately and timely funded.

The FS must assess the fuel and fire risk situation across land ownership boundaries to understand, and disclose to

the public, the likely fire scenarios across the area's landscape. Only then can the context of your proposal be adequately weighed on its merits and evaluated on its merits.

The FS (Cohen, 1999) reviewed current scientific evidence and policy directives on the issue of fire in the wildland/urban interface and recommended an alternative focus on structure ignitability rather than extensive wildland fuel management:

The congruence of research findings from different analytical methods suggests that home ignitability is the principal cause of home losses during wildland fires... Home ignitability also dictates that effective mitigating actions focus on the home and its immediate surroundings rather than on extensive wildland fuel management.

[Research shows] that effective fuel modification for reducing potential WUI fire losses need only occur within a few tens of meters from a home, not hundreds of meters or more from a home. This research indicates that home losses can be effectively reduced by focusing mitigation efforts on the structure and its

immediate surroundings. Those characteristics of a structure's materials and design and the surrounding flammables that determine the potential for a home to ignite during wildland fires (or any fires outside the home) will, hereafter, be referred to as home ignitability.

The evidence suggests that wildland fuel reduction for reducing home losses may be inefficient and ineffective. Inefficient because wildland fuel reduction for several hundred meters or more around homes is greater than necessary for reducing ignitions from flames. Ineffective because it does not sufficiently reduce firebrand ignitions (Cohen, 1999)

That research also recognizes “the imperative to separate the problem of the wildland fire threat to homes from the problem of ecosystem sustainability due to changes in wildland fuels” (Ibid).

Please consider that thinning can result in faster fire spread than in the unthinned stand. Graham, et al., 1999a point out that fire modeling indicates:

For example, the 20-foot wind speed must exceed 50 miles per hour for midflame wind speeds to reach 5 miles per hour within a dense Stand (0.1 adjustment factor). In contrast, in an open stand (0.3 adjustment factor), the same midflame wind speeds would occur at only a 16-mile-per-hour wind at 20 feet.

Graham, et al., 1999a also state:

Depending on the type, intensity, and extent of thinning, or other treatment applied, fire behavior can be improved (less severe and intense) or exacerbated.”

... Fire intensity in thinned stands is greatly reduced if thinning is accompanied by reducing the surface fuels created by the cuttings. Fire has been successfully used to treat fuels and decrease the effects of wildfires especially in climax ponderosa pine forests (Deeming 1990; Wagel and Eakle 1979; Weaver 1955, 1957). In contrast, extensive amounts of untreated logging slash contributed to the devastating fires during the late 1800s and early 1900s in the inland and Pacific Northwest forests.

In their conclusion, Graham, et al., 1999a state:

Depending on intensity, thinning from below and possibly free thinning can most effectively alter fire behavior by reducing crown bulk density, increasing

crown base height, and changing species composition to lighter crowned and fire-adapted species. Such intermediate treatments can reduce the severity and intensity of wildfires for a given set of physical and weather variables. But crown and selection thinning would not reduce crown fire potential.

Since the scientific literature suggests that your thinning activities will actually increase the rate of fire spread, you need to reconcile such findings with the contradictory assumptions expressed in your scoping letter.

Please see the column below by Dr. Chad Hanson.

<https://thehill.com/blogs/congress-blog/energy-environment/590415-logging-makes-forests-and-homes-more-vulnerable-to>

Logging makes forests and homes more vulnerable to wildfires

The West has seen some really big forest fires recently, particularly in California's Sierra Nevada and the Cascade Mountains of Oregon. Naturally, everyone is concerned and elected officials are eager to be seen as advancing solutions. The U.S. Senate is negotiating over the Build Back Better bill, which currently contains nearly \$20 billion in logging subsidies for "hazardous fuel reduction" in forests.

This term contains no clear definition but is typically employed as a euphemism for “thinning”, which usually includes commercial logging of mature and old-growth trees on public lands. It often includes clearcut logging that harms forests and streams and intensifies wildfires.

Logging interests stand poised to profit, as they tell the public and Congress that our forests are overgrown from years of neglect. Chainsaws and bulldozers are their remedy. Among these interests are agencies like the U.S. Forest Service that financially benefits from selling public timber to private logging companies.

In this fraught context, filled with a swirling admixture of panic, confusion, and opportunism, the truth and scientific evidence are all too often casualties. This, unfortunately, can lead to regressive policies that will only exacerbate the climate crisis and increase threats to communities from wildfire. We can no longer afford either outcome.

Many of the nation’s top climate scientists and ecologists recently urged Congress to [remove the logging subsidies](#) from the Build Back Better bill. Scientists noted that logging now emits about as much carbon dioxide each year as does burning coal. They also noted that logging conducted under the guise of “forest thinning” does not stop large wildfires that are driven mainly by extreme fire-weather caused primarily by climate change. In fact, it can often make fires burn faster and more intensely toward vulnerable homes. Unprepared towns like Paradise and Grizzly

Flats, Calif., unfortunately burned to the ground as fires raced through heavily logged surroundings.

Nature prepares older forests and large trees for wildfires. As trees age, they develop thick impenetrable bark and drop their lower limbs, making it difficult for fire to climb into the tree crowns. Older, dense forests used by the imperiled spotted owl burn in [mixed intensities](#) that is good for the owl and hundreds of species that depend on these forests for survival. Our national parks and wilderness areas also burn in [lower](#) fire intensities compared to heavily logged areas.

Occasionally even some of the largest trees will succumb to a severe fire but their progeny are born again to rapidly colonize the largest and most [severe burn patches](#). Dozens of cavity-nesting birds and small mammals make their homes in the fire-killed trees. Soon after fire in these forests, nature regenerates, reminiscent of the mythical phoenix, aided by scores of pollinating insects and seed carrying birds and mammals.

Wildfires are highly variable, often depending on what a gust of wind does at a given moment, and even the biggest fires are primarily comprised of lightly and moderately-burned areas where most mature trees survive. By chance, in any large fire there will always be some areas that were thinned by loggers that burned less intense compared to unthinned areas. Before the smoke fully clears, logging interests find those locations and take journalists and politicians to promote their agenda. What they fail to disclose are the

many examples where managed forests burned hotter while older, unmanaged forests did the opposite.

This sort of self-serving show boating occurred after the 2020 Creek Fire in the Sierra National Forest in California, as news stories echoed the logging industry's "overgrown forests" narrative based on a single low-intensity burn area. When all of the data across the entire fire were [analyzed](#), it turned out that logged forests, including commercial "thinning" areas, actually burned the most intensely.

In Oregon, The Nature Conservancy has been conducting intensive commercial thinning on its Sycan Marsh Preserve. Based on satellite imagery, the northern portion of the 414,000-acre Bootleg Fire of 2021 swept through these lands. Within days, TNC began promoting its logging program, focusing on a single location around Coyote Creek, where a "thinned" unit burned lightly. They failed to mention that nearly all of the dense, unmanaged forests burned lightly too in that area. Well-intentioned environmental reporters were misled by a carefully picked example.

Billions of dollars are being wasted to further this false logging industry narrative—funds that instead should be used to prepare communities for more climate-driven wildfires. Congress can instead redirect much needed support to damaged communities so they can build back better and adopt proven fire safety measures that harden homes and clear flammable vegetation nearest structures.

The path forward is simple, with two proven remedies that work. Protect forests from logging so they can absorb more carbon dioxide from the atmosphere and moderate fire behavior, and [adapt](#) communities to the new climate-driven wildfire era.

Chad Hanson, Ph.D., is a research ecologist with the John Muir Project and is the author of the 2021 book, “Smoke-screen: Debunking Wildfire Myths to Save Our Forests and Our Climate.” Dominick DellaSala, Ph.D., is chief scientist with Wild Heritage and the author of Conservation Science and Advocacy for a Planet in Peril: Speaking Truth to Power.

Please see the column below by Chad Hanson and myself.

Opinion by Chad Hanson and
Mike Garrity

https://www.washingtonpost.com/opinions/no-we-cant--and-shouldnt--stop-forest-fires/2017/09/26/64ff718c-9fbf-11e7-9c8d-cf053ff30921_story.html

September 26, 2017

Chad Hanson is a research ecologist with the John Muir Project and is co-editor and co-author of “[The Ecological Importance of Mixed-Severity Fires: Nature’s Phoenix](#).” Mike Garrity is executive director of the Alliance for the Wild Rockies.

The American West is burning, Sen. Steve Daines (R-Mont.) [tells us in his recent Post op-ed](#). He and officials in the Trump administration have described Western forest fires as catastrophes, promoting congressional action ostensibly to save our National Forests from fire by allowing widespread commercial logging on public lands. This, they claim, will reduce forest density and the fuel for wildfires.

But this position is out of step with current science and is based on several myths promoted by commercial interests.

The first myth is the notion that fire destroys our forests and that we currently have an unnatural excess of fire. Nothing could be further from the truth. There is a broad consensus among scientists that we [have considerably less](#) fire of all intensities in our Western U.S. forests compared with natural, historical levels, when lightning-caused fires burned without humans trying to put them out.

There is an equally strong consensus among scientists that fire is essential to maintain ecologically healthy forests and native biodiversity. This includes large fires and patches of intense fire, which create an abundance of biologically essential standing dead trees (known as snags) and naturally stimulate regeneration of vigorous new stands of forest. These areas of “snag forest habitat” are ecological treasures, not catastrophes, and many native wildlife species, such as the rare black-backed woodpecker, depend on this habitat to survive.

Fire or drought kills trees, which attracts native beetle species that depend on dead or dying trees. Woodpeckers eat the larvae of the beetles and then create nest cavities in the dead trees, because snags are softer than live trees. The male woodpecker creates two or three nest cavities each year, and the female picks the one she likes the best, which creates homes for dozens of other forest wildlife species that need cavities to survive but cannot create their own, such as bluebirds, chickadees, chipmunks, flying squirrels and many others.

[More than 260](#) scientists wrote to Congress in 2015 opposing legislative proposals that would weaken environmental laws and increase logging on National Forests under the guise of curbing wildfires, noting that snag forests are "quite simply some of the best wildlife habitat in forests."

The FS must disclose its transparent, well thought-out long-term strategy for old-growth associated wildlife species viability in a properly-defined cumulative effects analysis area.

“The purpose of the Selway Saginaw Vegetation Project is to promote resiliency and ecological function.

Since Ecological restoration is the project’s priority, the NEPA document must at least identify all the existing ecological liabilities caused by past management actions. This includes poorly located or poorly maintained roads, high-

risk fuel situations caused by earlier vegetation manipulation projects, wildlife security problems by open motorized roads and trails plus those that are closed but violated—and include all those impacts in the analyses.

Any desire to keep a road in the project area WUI must be in harmony with the alleged priority goals (again, to reduce the chances that fire will destroy private structures and harm people), not driven by timber production goals. The analysis must show how all roads will in fact be in harmony with the priority goals.

Proposed activities could artificialize the forest ecosystem. Lodgepole pine is particularly subject to blowdown, once thinned. And any forest condition that is maintained through mechanical manipulation is not maintaining ecosystem function. The proposed management activities would not be integrated well with the processes that naturally shaped the ecosystem and resulted in a range of natural structural conditions. Thus, the need for standards guiding both the delineation of zones where artificializing fuel reduction actions may take place, and that also set snag and down woody debris retention amounts.

That brings us to myth No. 2: that eliminating or weakening environmental laws — and increasing logging — will somehow curb or halt forest fires. In 2016, in the largest analysis ever on this question, scientists found that forests with the fewest environmental protections and the most logging [had the highest](#) — not the lowest — levels of fire

intensity. Logging removes relatively noncombustible tree trunks and leaves behind flammable "slash debris," consisting of kindling-like branches and treetops.

This is closely related to myth No. 3: that dead trees, usually removed during logging projects, increase fire intensity in our forests. A [comprehensive study](#) published in the Proceedings of the National Academy of Sciences thoroughly debunked this notion by showing that outbreaks of pine beetles, which can create patches of snag forest habitat, didn't lead to more intense fires in the area. A more recent study [found](#) that forests with high levels of snags actually burn less intensely. This is because flames spread primarily through pine needles and small twigs, which fall to the ground and soon decay into soil shortly after trees die.

Finally, myth No. 4: that we can stop weather-driven forest fires. We can no more suppress forest fires during extreme fire weather than we can stand on a ridgetop and fight the wind. It is hubris and folly to even try. Fires slow and stop when the weather changes. It makes far more sense to focus our resources on protecting rural homes and other structures from fire by creating "defensible space" of about 100 feet between houses and forests. This allows fire to serve its essential ecological role while keeping it away from our communities.

Lawmakers in Congress [are promoting legislation](#) based on the mythology of catastrophic wildfires that would largely eliminate environmental analysis and public participation for logging projects in our National Forests. This would in-

clude removing all or most trees in both mature forests and in ecologically vital post-wildfire habitats — all of which is cynically packaged as "fuel reduction" measures.

The logging industry's political allies have fully embraced the deceptive "catastrophic wildfire" narrative to promote this giveaway of our National Forests to timber corporations. But this narrative is a scientifically bankrupt smoke screen for rampant commercial logging on our public lands. The American people should not fall for it.

Please see the letter from the 260 scientist to Congress which is mentioned in the column above, below.

Open Letter to U.S. Senators and President Obama from Scientists Concerned about Post-fire Logging and Clearcutting on National Forests

As professional scientists with backgrounds in ecological sciences and natural resources management, we are greatly concerned that legislation which passed the House in July 2015, H.R. 2647, would suspend federal environmental protections to expedite logging of both post-fire wildlife habitat and unburned old forests on national forest lands. This legislation would also effectively eliminate most analysis of adverse environmental impacts, and prevent enforcement of environmental laws by the courts.

A similar measure, S. 1691, currently proposed in the U.S. Senate, would override federal environmental laws to dramatically increase post-fire logging, increase logging and clearcutting of mature forests, eliminate analysis of envi-

ronmental impacts for most logging projects, and effectively preclude enforcement of environmental laws. The bills propose these measures under the guise of “ecosystem restoration,” ostensibly to protect national forests from fire.

Not only do these legislative proposals misrepresent scientific evidence on the importance of post-fire wildlife habitat and mature forests to the nation, they also ignore the current state of scientific knowledge about how such practices would degrade the ecological integrity of forest ecosystems on federal lands. We urge you to vote against this legislation, and urge President Obama to veto these bills if they are passed in some form by Congress.

National Forests were established for the public good and include most of the nation’s remaining examples of intact forests. Our national forests are a wellspring of clean water for millions of Americans, a legacy for wildlife, sequester vast quantities of carbon important in climate change mitigation, and provide recreation and economic opportunities to rural communities if responsibly managed. Though it may seem at first glance that a post-fire landscape is a catastrophe, numerous scientific studies tell us that even in the patches where forest fires burn most intensely, the resulting wildlife habitats are among the most ecologically diverse on western forestlands and are essential to support the full richness of forest biodiversity.¹

Post-fire conditions also serve as a refuge for rare and imperiled wildlife species that depend upon the unique habitat features created by intense fire. These include an abun-

dance of standing dead trees, or “snags,” which provide nesting and foraging habitat for woodpeckers and many other plant and wildlife species responsible for the rejuvenation of a forest after fire.

The post-fire environment is rich in patches of native flowering shrubs that replenish soil nitrogen and attract a diverse bounty of beneficial insects that aid in pollination after fire. Small mammals find excellent habitat in the shrubs and downed logs, providing food for foraging spotted owls. Deer and elk browse on post-fire shrubs and natural conifer regeneration. Bears eat and disperse berries and conifer seeds often found in substantial quantities after intense fire, and morel mushrooms, prized by many Americans, spring from ashes in the most severely burned forest patches.

1 See <http://store.elsevier.com/The-Ecological-Importance-of-Mixed-Severity-Fires/Dominick-DellaSala/isbn-9780128027493/>.

September 2015

This post-fire renewal, known as “complex early seral forest,” or “snag forest,” is quite simply some of the best wildlife habitat in forests, and is an essential stage of natural processes that eventually become old-growth forests over time. This unique habitat is not mimicked by clearcutting, as the legislation incorrectly suggests. Moreover, it is the least protected of all forest habitat types, and is often as rare, or rarer, than old-growth forest, due to extensive fire suppression and damaging forest management practices

such as those encouraged by this legislation. Much of the current scientific information on the ecological importance of post-fire habitat can be found in several excellent videos, including ways for the public to co-exist with fires burning safely in the backcountry.^{1,2}

After a fire, the new forest is particularly vulnerable to logging disturbances that can set back the forest renewal process for decades. Post-fire logging has been shown to eliminate habitat for many bird species that depend on snags, compact soils, remove biological legacies (snags and downed logs) that are essential in supporting new forest growth, and spread invasive species that outcompete native vegetation and, in some cases, increase the flammability of the new forest.

While it is often claimed that such logging is needed to restore conifer growth and lower fuel hazards after a fire, many studies have shown that logging tractors often kill most conifer seedlings and other important re-establishing vegetation and actually increases flammable logging slash left on site. Increased chronic sedimentation to streams due to the extensive road network and runoff from logging on steep slopes degrades aquatic organisms and water quality.³

We urge you to consider what the science is telling us: that post-fire habitats created by fire, including patches of severe fire, are ecological treasures rather than ecological catastrophes, and that post-fire logging does far more harm than good to public forests. We urge Senators to vote against any legislation that weakens or overrides environ-

mental laws to increase post-fire logging or clearcutting of mature forest as degrading to the nation's forest legacy. And, we urge President Obama to veto any such legislation that reaches his desk as inconsistent with science-based forest and climate change planning.

Sincerely (affiliations are listed for identification purposes only),

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²<http://www.fs.usda.gov/detail/r5/news-events/audiovisual/?cid=stelprdb5431394>;

<https://vimeo.com/75533376>; <http://vimeo.com/groups/future/videos/8627070>; <http://www.youtube.com/watch?v=iTl-naywNyY&list=PL7F70F134E853F520&index=15>; <http://www.youtube.com/watch?v=1BmTq8vGAVo&feature=youtu.be>; <http://vimeo.com/3428311>

³Hutto, R. L. 2006. Toward meaningful snag-management guidelines for postfire salvage logging in North American conifer forests. *Conservation Biology* 20:984-993. Beschta, R.L. et al. 2004. Postfire management on forested public lands of the western USA. *Conservation Biology*

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Veblen (2003) questions the premises the FS often puts forth to justify “uncharacteristic vegetation patterns” discussions, that being to take management activities to alter vegetation patterns in response to fire suppression:

The premise behind many projects aimed at fuel reduction and Resiliency in forests of the western United States is the idea that unnatural fuel buildup has resulted from suppression of formerly frequent fires.

This premise and its implications need to be critically evaluated by conducting area-specific research in the forest ecosystems targeted for fuels or ecological restoration projects. Fire regime researchers need to acknowledge the limitations of fire history methodology and avoid over-reliance on summary fire statistics such as mean fire interval and rotation period. While fire regime research is vitally important for informing decisions in the areas of wildfire hazard mitigation and ecological restoration, there is much need for improving the way researchers communicate their results

to managers and the way managers use this information.

Since disruption of fire cycles is identified, the BDNF needs to take a hard look at its fire policies. The development of approved fire management plans in compliance with the Federal Wildland Fire Policy was the number one policy objective intended for immediate implementation in the Implementation Action Plan Report for the Federal Wildland Fire Management Policy and Program Review. In general, the FS lags far behind other federal land management agencies that have already invested considerable amounts of time, money, and resources to implement the Fire Policy. Continued mismanagement of national forest lands and FS refusal to fully implement the Fire Policy puts wildland firefighters at risk if and when they are dispatched to wildfires. This is a programmatic issue, one that the current Forest Plan does not adequately consider. Please see Ament (1997) as comments on this proposal, in terms of fire policy and Forest Planning.

Many adverse consequences to soil, ecological processes, wildlife, and other elements of the natural environment are associated with thinning. (Ercelawn, 1999; Ercelawn, 2000.) For example: “Salvage or thinning operations that remove dead or decayed trees or coarse woody debris on

the ground will reduce the availability of forest structures used by fishers and lynx.” (Bull et al., 2001.)

The Selway Saginaw DDN, FONSI and EA did not clearly demonstrate that the project uses a legal definition of the Wildland Urban Interface (WUI) in violation of NEPA, NFMA, the Healthy Forest Act and the APA. The Selway Saginaw project purpose and need is based on false assumptions in violation of NEPA, NFMA and the APA.

Remedy

Choose the No Action Alternative or withdraw the draft decision and write an EIS that fully complies with the law.

We wrote in our comments:

ELK

The Project and Forest Plan analysis and impacts on elk violate NFMA and NEPA.

In a NEPA analysis, the Forest Service must assess direct, indirect, and cumulative effects of a proposed action.

In a project analysis, the Forest Service must apply the best available science.

The Revised Forest Plan and best available science define “elk security area” as “comprised of contiguous 250 acre blocks of forested habitat .5 miles or more from open roads with these blocks encompassing 30% or more of the area.”

The 2016 EA does not comply with this definition in the analysis of elk.

As the Montana District Court wrote in the order on the Fleecer case:

Christensen et al. (1993) does not support the exclusion of temporary roads. See Native Ecosystems Council, 848 F. Supp. 2d at 1219. While the study does not speak specifically to "temporary" roads except to advise that the Forest Service "[i]dentify temporary roads where they are an option," temporary roads are not excepted from Christensen's conclusion that "[a]ny motorized vehicle use on roads will reduce habitat effectiveness." BDNF:L- 055:4 (emphasis added). The definition section of the FEIS does not support the exclusion of temporary roads either. "Road density" is defined as the "[n]umber of miles of open road per square mile." BDNF:A1-40:1463. While "open road" may suggest that restricted-use roads are not included in the definition, Defendants have admitted that administrative and permitted roads are, in fact, included in the definition. A "temporary road" is listed as one type of "road." *Id.* It is defined as a "road[]" authorized by contract, permit, lease,

other written authorization, or emergency operation not intended to be part of the forest transportation system and not necessary for long-term resource management," *id.*, and as "[a] road or trail necessary for emergency operations, or authorized by contract, permit, lease, or other written authorization that is not a forest road or trail that is not included in the Forest Transportation Atlas (36 CFR 212.1 (2005) Transportation System)," *id.* at 1464. In other words, a temporary road may be an administrative or permitted road, which Defendants say are included in the tables.

Neither the Forest Plan nor the EA discuss what effect temporary roads will have on elk viability. In their briefing for the Fleecer case the Forest Service argued that including temporary roads would be nonsensical in areas where the road density objectives are lower than the actual road density at the time the Plan was adopted. In these areas, they assert, no management activities requiring temporary roads would ever be allowed. While this may be true, the Forest Service failed to develop its analysis in the record for the Forest Plan itself, and provided no explanation for its departure from the best available science or from the definitions contained in the FEIS. It "entirely failed to consider an important aspect of the problem," *Lands Council I*, 537 F.3d at 993, and must address this issue on remand in a supplemental EIS.

The EA did not adequately explain the effect of temporary roads on elk viability as the court ordered for the Fleecer EA.

The Forest Service assumptions in the Travel Plans that all closures would be effective has proven false. How many road closure violations have occurred in the Dillon and Wisdom Ranger Districts in the last 5 years? If there have been violations of road closures, for this reason, you cannot tie to the analysis in the Travel Plan because it is invalid.

Please update your open road density calculations to include all roads receiving illegal use.

The project is in violation of NEPA, NFMA, the Forest Plan, The Travel Plan, the APA and the ESA because of the repeated road closure violations. The Forest Service assumptions in the Travel Plans that all closures would be effective has proven false.

Elk security is a limiting factor for elk throughout MT on public lands. The project area does not have superman elk who are unafraid of hunters. The elk security issue is something MT FWP argues for because they do not want

the elk to flee to private lands during hunting season where public lands hunters do not have access.

The project is in violation of the BDNF Forest Plan because it is not following the best available science for elk which is the Eastside Assessment.

Christensen et al. (1993) states: “Any motorized vehicle use on roads will reduce habitat effectiveness. Recognize and deal with all forms of motorized vehicles and all uses, including administrative use.”

Christensen et al. (1993) states: “For areas intended to benefit elk summer range and retain high use, habitat effectiveness should be 70 percent or greater.”

Christensen et al. (1993) states: “For areas where elk are one of the primary resource considerations habitat effectiveness should be 50 percent or greater.”

Christensen et al. (1993) states: “Areas where habitat effectiveness is retained at lower than 50 percent must be recognized as making only minor contributions to elk management goals. If habitat effectiveness is not important, don’t fake it. Just admit up front that elk are not a consideration.”

Christensen et al. (1993) states: “Reducing habitat effectiveness should never be considered as a means of controlling elk populations. A population over target is not a Forest Service habitat problem.”

Accordingly, the Eastside Assessment states at page 17 states: “For areas intended to benefit elk summer range and retain high elk use, habitat effectiveness related to motorized routes should be 70% or greater.”

The Eastside Assessment at page 17 states: “At the project level an elk habitat effectiveness analysis should be conducted.”

The best available science define “elk security area” as “comprised of contiguous 250 acre blocks of forested habitat .5 miles or more from open roads with these blocks encompassing 30% or more of the area.”

Page 140 of the EA report states:

The proposed action is consistent with Forest Plan Wildlife Standard 2 and elk security will be provided for in part through adherence to the Desired Open Motorized Road and Trail Density goals described in Table 13 titled Density of Roads and Trails Open to Motorized Use by-Landscape of the Forest Plan. Further, elk require a habitat mosaic which includes forested cover and large open areas which provide necessary herbaceous forage (USDA, 1999). Forest management that maintains open-canopied vegetation communities and prevents conifer encroachment of meadows, including several of the management activities described for the Proposed Action, may benefit elk by providing forage (Lehman, 2016).

The Selway Saginaw project and the forest plan are not flowing the best available science for elk security. There is no mention of what the habitat effectiveness is now or will be for the project area after and during the implementation of the project in violation of NEPA, NFMA and the APA.

Remedy:

Choose the No Action alternative or withdraw the draft decision and FONSI and write an EIS that fully complies with the law.

Grizzly Bears

We wrote in our comments:

The Project Will Violate the Endangered Species Act (ESA) by Degrading a Documented Linkage Zone for the Grizzly Bear between the Greater Yellowstone Ecosystem and the Northern Continental Divide Ecosystem.

The RFP at 45 notes that a goal of the RFP is that forest management contributes to wildlife linkages by providing secure habitat to facilitate large animal movement. Secure habitat for the threatened grizzly bear has been defined

via the current best science as unroaded areas of at least several thousand acres. The Selway Saginaw project will clearly create severe adverse impacts to the current landscape not only by reducing hiding cover, which promotes grizzly bear habitat use, but will result in a huge increase in roads on this landscape. These roads will be in place for at least 10 years, and will remain as a road for the future until it filled in with trees, and no longer appears as a road to grizzly bears. Although this is not a recovery area for bears, they have increasingly been documented in this Big Hole landscape. It is also known that this Big Hole landscape will promote genetic flow between the 2 occupied grizzly bear populations to the north and south. As it is currently proposed, the project will clearly increase the mortality risk to grizzly bears due to increases in open and total roads, and by decreasing the amount of secure habitat that lays between these roads. The project is clearly an adverse impact on grizzly bears, which requires a take statement from the U.S. Fish and Wildlife Service, as identified in a Biological Opinion. The Forest Service Biological Assessment for grizzly bears also needs to address the long-term impact of new roads on not only illegal off-road vehicle use, but trail use by hunters. Conflict with hunters and grizzly bears has already been documented in the Big Hole landscape.

The Forest Service responded:

The Proposed Action is consistent with Forest Plan Wildlife Habitat Standard 6 and grizzly bear security will be provided for in part through adherence to the Desired

Open Motorized Road and Trail Density goals described in Table 13 titled Density of Roads and Trails Open to

Motorized Use by Landscape in the Forest Plan. A Biological Assessment will more thoroughly discuss the effects of the proposed action on the grizzly bear. Further, several studies have documented grizzly bear selection for non-forest types, suggesting the benefit of creating forest openings (Waller, 1999) (Fortin, 2011). Open forest canopy areas are known to influence daily movements as these areas provide herbaceous forage and the opportunity for predation on vulnerable ungulates like elk calves in the spring (Gunther, 1990) (Mace, 1999) (Apps, 2004).

The current best science indicates that connectivity between the Yellowstone and Glacier ecosystems are necessary for the long term genetic health of both populations, especially bears in the Yellowstone ecosystem. The project area lies within an identified linkage zone for grizzly bears as well as lynx. However, there are no management standards for either species to ensure connectivity is maintained, based on the current best science as required by the ESA. This requires limits on open road densities, limits on travel barriers, and retention of at least 50% dense, older forest habitats for lynx. The NRLMD (2007) does not require any specific features for connectivity for lynx, and the RFP does not require any minimum impacts from open roads to grizzly bears. Grizzly bears are known to be expanding into this landscape, and it is also

historic habitat for lynx. Since lynx occupied this area at the time of listing as a threatened species, this landscape may qualify as critical habitat. It's suitability for lynx must therefore be retained until a final decision is made on critical habitat. And suitability for grizzly bear use must also be retained/restored.

The Forest Plan analysis and impacts on ESA-listed grizzly bear violate ESA, NFMA, and NEPA.

The Forest Service did not prepare a biological assessment and consult with U.S. Fish and Wildlife Service regarding the impact of the Revised Forest Plan on the threatened grizzly bear in all areas across the Forest where grizzly bears may be present.

The biological opinion for the Revised Forest Plan apparently is based on grizzly bear distribution in 2004, which is eight year old data that no longer represents the best available science on where grizzly bears may be present on the Forest.

There is no scientifically sound incidental take statement for the Revised Forest Plan for the threatened grizzly bear that includes reasonable and prudent measures for all areas where grizzly bears may be present across the Forest.

The agencies' failure to promulgate an adequate biological assessment, Biological Opinion, and Incidental Take Statement for the Revised Forest Plan that addresses all grizzly bears across the Forest violates the ESA.

The Forest Service's failure to take a hard look and include appropriate standards for ESA-listed grizzly bears within the Forest Plan, in a supplemental NEPA process, violates NEPA. See *Pacific Rivers Council v. supplemental NEPA analysis for the Forest Plan*.

The Forest Service's failure to amend the Forest Plan to include binding legal standards aimed at recovering and conserving the ESA-listed grizzly bear on the Forest violates NFMA.

The Forest Service must complete a biological assessment for grizzly bears for the Project because the U.S. Fish and Wildlife Service states that both resident and transient grizzly bears may be present on the Forest.

Grizzly bears are present on the Forest, both within designated grizzly bear recovery zones and outside of those zones.

Grizzly bears were documented recently in the Big Hole Valley to the south west of the project area.

As recently as 2010, grizzly bears have been documented to the north and north-west of the Project area: in the Anaconda-Pintler Wilderness area, in the Flint Creek mountain range, in the John Long Mountains, and on the east end of the Anaconda range. The Anaconda range and Anaconda-Pintler Wilderness area are within the wildlife security analysis area for the Project.

In 2005, a dead grizzly bear was found within the Mount Haggin Wildlife Management Area, which is adjacent to the Project area and within the wildlife security analysis area for the Project.

The Project analysis and impacts on ESA-listed grizzly bears violate ESA, NEPA and NFMA.

The U.S. Court of Appeals for the Ninth Circuit holds that “[o]nce an agency is aware that an endangered species may be present in the area of its proposed action, the ESA requires it to prepare a biological assessment”

Thomas v. Peterson, 753 F. 2d 754, 763 (9 Cir. 1985).

Because there are endangered species present and will be effect, the Forest Service must complete and EIS. The Project EIS and BA/BiOp must disclose and apply the best available science on recommended open motorized route density, total motorized route density, and core habitat thresholds for NCDE grizzly bears.

The best available science on NCDE grizzly bears requires no more than 19% open motorized route density over 1.0 mi./sq.mi. and 19% total motorized route density over 2.0 mi./sq.mi., and no less than 68% core habitat for NCDE grizzly bears (19/19/68).

The following article in the November 3, 2017 NY Times mentions the importance of corridors between the Northern Continental Divide population and the Yellowstone grizzly population. It also mentions that grizzly bears from the Northern Continental Divide population have almost connected with the Yellowstone population since there is a grizzly bear in the mountains near Butte, 70 miles from the Yellowstone population.

Yellowstone Grizzlies May Soon Commingle With Northern Cousins

https://www.nytimes.com/2017/11/03/science/grizzly-bears-yellowstone-genes.html?_r=0

HELENA, Mont. — To make the plains and mountains safe for the great herds of cattle that were brought to the West at the end of the 19th century, grizzly bears were routinely shot as predators by bounty hunters and ranchers.

Ever since, the bears in Yellowstone National Park, protected from hunting, have been cut off from the rest of their kind. Their closest kin prowl the mountains some 70 miles north, in and around Glacier National Park.

In a new paper, biologists say that as grizzly populations increase in both Glacier and Yellowstone, more adventurous males from both parks are journeying farther to stake

out territory, winding up in places where they have not been seen in a century or more.

If they keep roaming and expanding, the two populations will likely reconnect, perhaps as soon as five or 10 years from now.

“It’s very encouraging for the long-term future of the bear,” said Frank van Manen, leader of the Interagency Grizzly Bear Study Team in Bozeman, Mont., which oversees research into Yellowstone’s bears.

A mingling of the separate populations would go a long way toward bolstering the genetics of the isolated Yellowstone grizzlies.

The bears in the Greater Yellowstone ecosystem, in and around the park, are healthy now, and they have increased to at least 700 today from fewer than 150 in 1975, when they were listed as endangered.

But a genetic lifeline from Glacier bears, which are also related to the grizzlies of Canada, will mean a good deal more diversity to help assure the bears’ future. It’s so important that researchers have talked about trucking grizzly bears from the north to add to the Yellowstone gene pool.

“Because Yellowstone is a bit lower in genetic diversity, hundreds of years from now they might be less able to

adapt to changing conditions — changing climate, changing food sources and disease resistance,” Dr. van Manen said.

While no one knows what advantageous traits the Glacier grizzlies might have in their genes, increasing diversity is the best way to assure resilience against those types of hazards.

Currently, the nearest interloper from the Northern Continental Divide Ecosystem has bridged the 70-mile gap by working his way south. That grizzly is in the mountains near Butte, Mont., some 50 miles from the perimeter of the Yellowstone ecosystem.

Biologists and conservationists are rooting for a natural reunion between the two largest populations of grizzlies in the country, Dr. van Manen said.

In a study published in Ecosphere, researchers tracked grizzly bears from the northern and southern populations as they moved through western Montana, including the rugged Big Belt mountains near this city, which sits between the two national parks.



!

A grizzly on a road near Mammoth, Wyo. Scientists say if bears keep roaming

from Yellowstone and Glacier National Park, the two populations will likely re- connect. Credit David Grubs/ The Billings Gazette, via Associated Press

The effort to follow these nomadic bears was aided by satellite data collars and new, more powerful data analysis techniques. Some 124 males were monitored from 2000 to 2015, some for more than one year.

GPS collars can track a bear almost in real time, providing richly detailed information on the corridors and habitats they use that need to be protected.

While much of the land between the two parks is publicly owned and wild, it becomes a gauntlet in some places as bears migrate into towns, cities, ranches and farms.

The bears are likely to seek out dog food, beehives, garbage, chickens and even apple trees, getting into trouble that may require trapping and relocating them. Highway crossings, especially on I-90 and I-15, pose a serious risk.

Conservation groups and biologists say it's a race against time to protect some of the open land between the two parks and to assure permanent transit routes for wildlife through land purchases or conservation easement.

Residential housing development north of Yellowstone around Bozeman, for example, is soaring.

"Even one house per square mile can be a problem for bears," said Jodi Hilty, a wildlife biologist in Canmore, Canada. "At the same time, this is one of the most intact mountain ecosystems in the world."

Dr. Hilty heads the group Yellowstone to Yukon, which seeks to link bears and other Yellowstone wildlife with populations in Glacier National Park and in vast tracts of wilderness in Canada. Protecting migration corridors between Yellowstone, Glacier and Canada would benefit not just bears, she said, but cougars, wolverines and other animals.

The Fish and Wildlife Service has removed the protections afforded under the Endangered Species Act from the Yellowstone grizzly because the population has grown so large. Dr. van Manen said that the number of grizzlies may exceed 1,000.

Environmentalists have sued the agency over its decision. They argue that climate change is a wild card that might someday cause the Yellowstone bear population to collapse.

With the bears delisted, some are concerned about plans by Montana officials to

allow the hunting of Yellowstone grizzlies. Dr. David Mattson, a retired wildlife biologist, said that there is a good chance that “Montana will institute a more lethal regime, whether by sport hunting or by other means, that will compromise these prospects.”

The state has said it would not allow hunting in areas where the two populations might reconnect.

As bears explore far beyond their core habitats, people not accustomed to grizzlies need to be educated about bear-proofing garbage cans and sealing off beehives and chicken coops with electric fencing, Dr. van Manen said.

Carrying pepper spray has already become indispensable for hikers, hunters and others in many parts of Montana, Idaho and Wyoming.

In 2016, four grizzlies were killed after confronting hunters in “defense of life” scenarios. Recently, a game warden near Cody, Wyo., shot and killed a female grizzly when it charged at him, leaving her cubs orphans.

Generally, though, the news for the big bear is good, said Dr. van Manen.

“There is strong scientific evidence that the recovery process that was put into place starting in the mid 1970s has paid off,” he said. “It’s an extraordinary effort

for recovery of a species that has ability to kill people. For the American people to support it is a remarkable achievement.”

The project EA does not address what the level of security, OMARD, and TMARD are recommended for grizzly bears in the NCDE, and how these compare to those available in the project area. This comparison would demonstrate compatibility of existing and planned management of grizzly bears to the general public.

There is no analysis of TMARD before or after project completion. Decommissioning of roads will reduce OMARD, but will not reduce TMARD. The road would have to be completely obliterated, and no future use can be planned (IGBC 1998). The claim that all new temporary roads will be obliterated, and thus no add to TMARD after the projects are completed, is never actually verified in the

project FEIS. There is no actual identification of the individual new temporary roads to be constructed, how long they will be left in place, the timeline for obliteration, as well as the timeline for obliteration. The project FEIS does not define why future management activities will not be required on these new roads in harvest units, such as future harvests in partial logging units, and precommercial thinning of the vast clearcut acreage that will be created by the project.

There is no analysis on how the project as to how the clearcutting existing cover, including openings up to large clearcuts, will affect grizzly bear movement through this landscape.

In a project analysis, the Forest Service must apply the best available science.

The BiOp for the BDNF revised Forest Plan, and the scoping notice for the Selway-Saginaw project, also do not use the current best science by identifying limits to TMARD or security. Security is the key factor that is proposed for management outside the Recovery Zones for grizzly bears (RFP Appendix G at 48).

The suggestion by the USFWS that the RFP OMRTD direction will prevent undue impacts on grizzly bears is meaningless as well. The RFP direction does not have to be met within any specific project area, including the project, but rather within huge landscape areas.

The incidental take allowed on the BDNF and in the project for current as well as planned levels of disturbance are illegal because there is no actual means of measuring take by the allowed construction of up to 70 miles of new roads across the entire BDNF, which consists of 3, 380,000 acres (RFP 2).

The Selway Saginaw project violates existing conservation direction for grizzly bears because habitat connectivity is not being managed to contribute to wildlife linkage zones (RFP at 45); secure habitat needed to facilitate grizzly bear habitat will be decreased for over 10 years, during which bear movements will be reduced.

The Forest Service and the USFWS will violate the ESA, the NEPA, and the NFMA if the project is implemented, due to the following:

- the BDNF has no conservation strategy for grizzly bears on this portion of the Forest, including within the project area.
- the BDNF is not maintain habitat connectivity for grizzly bears in the Selway Saginaw project area.
- the analysis of direct impacts for the project area do not use the current best science for grizzly bear security areas in the NDDE.
- the ability of grizzly bears to traverse through the project area is never evaluated.

-the current best science, including levels of grizzly bear security, open and total road densities, was not used in evaluating project impacts on grizzly bear during as well as after implementation.

-mitigation measures cited by both the Forest Service and the USFWS for grizzly bears as per landscape levels of OMRTD are invalid as direct effects are washed out.

-mitigation measures as per OMRTD at the landscape level do not apply to project implementation, and do therefore no mitigate disturbance impacts to grizzly bears from motorized routes during project activities.

-the cumulative effects of proposed activities on the Helena National Forest are not evaluated.

-the conclusions as to project effects as per the ESA of the proposed project on grizzly bears is never identified in the draft ROD or FEIS.

-the report provided by the USFWS in regards to project impacts on grizzly bears, and terms and conditions of the project, were never provided to the public in the draft ROD or FEIS.

-the conclusions regarding project impacts on grizzly bears in the project FEIS were invalid due to a lack of supporting documentation.

-there is no analysis of the loss of extensive, large blocks of hiding cover on grizzly bear movement through the project area.

-there was no action alternative that would restore grizzly bear habitat in the project area to improve habitat connectivity.

-the FS and the USFWS provided invalid, unsupported definitions of “temporary impacts”.

The project is in violation of NEPA, NFMA, the ESA and the APA for not responding to our comments, for not following the best available science, and for not analyzing the project’s effects on grizzly bears even though the project is likely to adversely affect grizzly bears.

Open road density and the amount of secure habitat in female home ranges are important predictors of female survival and both contribute different yet important components influencing survival (Mace et al. 1996, Wakkinen and Kasworm 1997, Schwartz et al. 2010).

Please find attached, ***Effects of roads and motorized human access on grizzly bear populations in British Columbia and Alberta, Canada*** by Proctor et al. 2020.

They find that the secure habitat needs to be greater than 10 km squared or greater than 2471 acres. The project will clearly increase the mortality risk to grizzly bears due to increases in open and total roads, and by decreasing the amount of secure habitat that lays between these roads. The project is clearly an adverse impact on grizzly bears,

which requires a take statement from the U.S. Fish and Wildlife Service, as identified in a Biological Opinion.

Proctor et al. 2020 is the best available science and defines secure habitat as approximately 2500 acres in size and 500 meters from a road. The Selway Saginaw project defines secure habitat as 10 acres in size and 500 meters from a road. The project is not following the best available science, NEPA, NFMA, the ESA and the APA.

REMEDY: Choose the No Action Alternative or withdraw the draft decision and FONSI and write an EIS that fully complies with the law.

Old Growth

We wrote in our comments:

In addition, the RFP does not require locally-distributed levels of old growth forests, which also provide habitat for one of the most vulnerable groups of western forest birds. The standard definition of well-distributed populations is every 10,000 acres, not across millions of acres of a forest. In addition, any of the local old growth habitat that occurs within a project area, such as the Selway Saginaw project, can be logged and still called old growth. Almost all forest birds associated with old growth will not use logged old growth in comparison to use in unlogged old

growth, if they will use it at all. Thus the failure of the RFP to maintain viable populations of western forest birds that rely on old growth habitat needs to be addressed through a Forest Plan update.

The Forest Service responded:

The Forest Plan and associated analysis is sufficient. We do not believe there is significant new information that would trigger revision of the current Forest Plan at this time.

The Draft Decision Notes States:

We are also choosing to defer a decision on the 2,417 acres of intermediate commercial harvest at this time. By dropping these acres, we will not be treating old growth. This decision would not preclude future decisions on the management of these stands.

The draft decision authorizes old growth logging but states they are not logging old growth at this time. This is an illegal decision that violates NEPA. Old growth logging could occur at any time in the future. For the proposal to be consistent with the Forest Plan, enough habitat for viable populations of old-growth dependent wildlife species is needed over the landscape. Considering potential difficulties of using population viability analysis at the project analysis area level (Ruggiero, et. al., 1994), the cumulative effects of carrying out multiple projects simultaneously across the BDNF makes it imperative that population viability be as-

sessed at least at the forestwide scale (Marcot and Murphy, 1992). Also, temporal considerations of the impacts on wildlife population viability from implementing something with such long duration as a Forest Plan must be considered (id.) but this has never been done by the BDNF. It is also of paramount importance to monitor population during the implementation of the Forest Plan in order to validate assumptions used about long-term species persistence i.e., population viability (Marcot and Murphy, 1992; Lacy and Clark, 1993).

The U.S. District Court in Montana ruled in *Native Ecosystems Council vs. Kimbell* on the Keystone Quartz project that the Forest Service presented no hard data to support or demonstrate the biological impact on old-growth species viability across the forest of further reducing Douglas-fir old-growth habitat below minimum forest plan standards, which themselves may be inadequate in light of more recent scientific information. Species in the Northern Region, including the BDNF, thought to prefer old-growth habitat for breeding or feeding include northern goshawk, flammulated owl, pileated woodpecker, black-backed woodpecker (after wildfire or beetle epidemic), fisher, marten, Canada lynx, and wolverine.

For the BDNF, sensitive old-growth dependent species include the northern goshawk and flammulated owl. Accord-

ing to official FS policy, the BDNF “must develop conservation strategies for those sensitive species whose continued existence may be negatively affected by the forest plan or a proposed project.” FSM 2670.45. These strategies would address the forest-wide and range-wide conditions for the affected species, allowing site-specific viability analysis to be tiered to the forest-wide viability analysis, and would establish quantifiable objectives for the affected species. These strategies must be adopted prior to implementation of projects that would adversely impact sensitive species habitat. FSM 2622.01, 2670.45.

Please demonstrate that this project will leave enough snags to follow the Forest Plan requirements and the requirements of sensitive old growth species such as flammulated owls and goshawks. Loggers are required to follow OSHA safety standards. Will these standards require snags to be cut down? After snags are cut down for safety for OSHA requirements will there still be enough snags left for old growth sensitive species?

Specifically how will the Selway Saginaw Project affect Flammulated owls, cavity-nesters usually associated with mature stands of ponderosa pine and Douglas-fir? Among other habitat characteristics, flammulated owls benefit from

an abundance of large snags and a relatively dense understory. The flammulated owl is a sensitive species in Region One, and is largely dependent on old ponderosa pine forests. According to a 2002 Region-wide assessment, not referenced in the 2003 FEIS for the Project, such forests only occur at 12-16% of their former, pre-fire suppression/pre-logging (that is, "historic") levels, and thus species viability has been determined to be at risk. The Northern Region also recognizes that its strategy for restoring habitat for the flammulated owl and found in the Island South project that "in no way guarantees that flammulated owls will be restored to viable levels."

Snag densities recommended by experts to support cavity-nesting birds range from 2.1 to 11 snags per acre of greater than 9" dbh. Please note that the fact that more recent science has called into question the lower snag densities cited in the earlier research, and the more recent science implies that about 4 snags per acre may be the minimum required to insure viability.

What surveys has the BDNF specifically designed to detect flammulated owls? The FS has not developed a conservation strategy for the flammulated owl in the BDNF, or in the Northern Rockies. Absent an appropriate landscape management strategy for insuring their viability, based

upon the best available science, it is arbitrary and capricious to dismiss potential impacts on the ground where the FS has failed to conduct the kind of comprehensive surveys that would reveal their presence. This convenient excuse for not protecting for a species that is becoming exceedingly rare, a strategy of managing for extinction (since protection premised on detection affords greatest protection to the species that least need it) has been condemned by the FS's own leading expert in the northern region, Mike Hillis:

With the exception of the Spotted Owl..., the U.S. Forest Service has not given much emphasis to owl management. This is contrary to the National Forest Management Act of 1976 (NFMA) which mandates that all wildlife species be managed for viable populations. However, with over 500 vertebrate species this would be difficult for any organization. Recognizing the absence of detailed information on owl habitat, the apparent association of owls with snags, mature, and old-growth timber (both rapidly declining), it seems inconsistent that the U.S. Forest Service has placed little emphasis on owl management. One might conclude that the agency's painful experiences with the Spotted Owl in Oregon and Washington have evolved into a 'hear no evil, see no evil' approach for other forest owls as well.

The NPCNF's Lolo Insect & Disease DEIS states: "The nest tree is the most important variable to estimate breeding habitat use by the pileated woodpecker (Kirk and Naylor

1996, Giese and Cuthbert 2003) ...The mean DBH of nest trees was 33 inches. ...Nest trees averaged 28 inches DBH.” (Emphases added.)

Bull et al., 2007 compare the effects of natural disturbance with large-scale logging on pileated woodpeckers. Also see Bull et al., 1992, Bull and Holthausen, 1993, and Bull et al., 1997 for biology of pileated woodpeckers and the habitats they share with cavity nesting wildlife.

Lorenz et al., 2015 state:

Our findings suggest that higher densities of snags and other nest substrates should be provided for PCEs (primary cavity excavators) than generally recommended, because past research studies likely overestimated the abundance of suitable nest sites and underestimated the number of snags required to sustain PCE populations. Accordingly, the felling or removal of snags for any purpose, including commercial salvage logging and home firewood gathering, should not be permitted where conservation and management of PCEs or SCUs (secondary cavity users) is a concern (Scott 1978, Hutto 2006).

The implication is clear: managers know little about how many snags per acre are needed to sustain populations of cavity nesting species. Only the birds themselves have the capability to decide if a tree is suitable for excavating. The EA and Forest Plan fails to recognize this scientific finding.

On the same subject, Hutto 2006, notes from the scientific literature: “The most valuable wildlife snags in green-tree forests are relatively large, as evidenced by the disproportionate number of cavities in larger snags (Lehmkuhl et al. 2003), and are relatively deteriorated (Drapeau et al. 2002).”

Spiering and Knight (2005) examined the relationship between cavity-nesting birds and snag density in managed ponderosa pine stands and examined if cavity-nesting bird use of snags as nest sites was related to the following snag characteristics (DBH, snag height, state of decay, percent bark cover, and the presence of broken top), and if evidence of foraging on snags was related to the following snag characteristics: tree species, DBH, and state of decay.

Spiering and Knight (2005) state:

“Many species of birds are dependent on snags for nest sites, including 85 species of cavity-nesting birds in North America (Scott et al. 1977). Therefore, information of how many and what types of snags are required by cavity-nesting bird species is critical for wildlife biologists, silviculturists, and forest managers.”

“Researchers across many forest types have found that cavity-nesting birds utilize snags with large DBH and tall height for nest trees (Scott, 1978; Cunningham et al., 1980; Mannan et al., 1980; Raphael and White, 1984; Reynolds et al., 1985; Zarnowitz and Manuwal, 1985; Schreiber and deCalesta, 1992).”

Spiering and Knight (2005) found the following.

Larger DBH and greater snag height were positively associated with the presence of a cavity, and advanced stages of decay and the presence of a broken top were negatively associated with the presence of a cavity. Snags in larger DBH size classes had more evidence of foraging than expected based on abundance.

Percent bark cover had little influence on the presence of a cavity. Therefore, larger and taller snags that are not heavily decayed are the most likely locations for cavity-nesting birds to excavate cavities.

The association of larger DBH and greater height of snags with cavities is consistent with other studies (Scott, 1978; Cunningham et al., 1980; Mannan et al., 1980; Raphael and White, 1984; Reynolds et al., 1985; Zarnowitz and Manuwal, 1985; Schreiber and deCalesta, 1992).

Spiering and Knight (2005) state that the “lack of large snags for use as nest sites may be the main reason for the low densities of cavity-nesting birds found in managed stands on the Black Hills National Forest. ...The increased proportion of snags with evidence of foraging as DBH size class increased and the significant goodness-of-fit test indicate that large snags are the most important for foraging.”

Tingley et al., 2016 note the diversity of habitats following

a fire is related to the diversity of burn severities: “(W)ithin the decade following fire, different burn severities represent unique habitats whose bird communities show differentiation over time... Snags are also critical resources for many bird species after fire. Increasing densities of many bird species after fire—primarily wood excavators, aerial insectivores, and secondary cavity nesters—can be directly tied to snag densities...”

One issue that arises is the abundance of the large snags and down wood remaining from past logging, firewood gathering, and other management, following the proposed logging, and—the nuance ignored in this EA—through time as recruitment becomes practically nil after a few years in logged areas due to most or all of the large trees being removed and/or downed. Since the EA suggests that beyond the analysis area (the entire Forest and to the Region) adequate habitat values would remain, the agency is obligated to provide the numbers and conduct a scientifically sound cumulative effects analysis—including the impacts of past logging, firewood gathering, etc. The FS has not done this. The project area was logged in the past, which obviously has affected recruitment of large snags. As we discuss above, the nesting tree needs of the pileated woodpecker is of a larger size than the FS acknowledges or analyzes. And the EA makes no commitment towards assuring retention of the largest tree habitat at the unit, project area, or any landscape scale.

Mealey, 1983 stated: “Well distributed habitat is the amount and location of required habitat which assure that individuals from demes, distributed throughout the population’s existing range, can interact. Habitat should be located so that genetic exchange among all demes is possible.” That document also provides guidance for pileated woodpecker habitat distribution.

Northern goshawk

The EA fails to include a cumulative effects analysis considering past and ongoing impacts in a logical cumulative effects analysis area for goshawks.

Crocker-Bedford (1990) investigated changes in northern goshawk habitat utilization following logging. He noted:

After partial harvesting over extensive locales around nest buffers, reoccupancy decreased by an estimated 90% and nestling production decreased by an estimated 97%. Decreases were probably due to increased competition from open-forest raptors, as well as changes in hunting habitat and prey abundance.

Clough (2000) noted that in the absence of long-term monitoring data, a very conservative approach to allowing logging activities near active goshawk nest stands should be taken to ensure that goshawk distribution is not greatly altered. This indicates that the full 180-acre nest area management scheme recommended by Reynolds et al. (1992) should be used around any active goshawk nest on the Forest. Removal of any large trees in the 180-acre

nesting area would contradict the Reynolds et al. (1992) guidelines.

The EA doesn't explain how the FS would be managing in considerations of Reynolds et al. (1992) scientific recommendations. Reynolds, et al. 1992, calls for protecting northern goshawk nest areas around 3 nests and 3 alternative nests against adverse impacts in each home range. However, the EA does not invoke best available science to maintain any nest areas, or accurately disclosed how the approved activities might impact such areas.

Reynolds et al. 1992 calls for ratios of (20%/20%/20%) each in the mid-aged forest, mature forest, and old forest Vegetative Structural Stage (VSS) classes for, in this case hypothetical post-fledging family areas (PFAs) and foraging areas.

In addition, Reynolds et al. 1992 calls for agency-created openings of no more than 2 acres in size or less in the PFAs, depending on forest type, and agency-created opening of no more than 1-4 acres or less in size in the foraging areas, depending on forest type.

Along with Reynolds et al., 1992, another conservation strategy for the goshawk is Graham, et al., 1999. Research suggests that it is essential to viability of goshawks that 20-50% of old growth within their nesting areas be maintained (Suring et al. 1993, Reynolds et al. 1992). USDA Forest Service (2000b) recommends that forest

opening greater than 50-60 acres be avoided in the vicinity of goshawks. At least five years of monitoring is necessary to allow for effective estimates of habitat quality (USDA Forest Service, 2000b). Research suggests that a localized distribution of 50% old growth should be maintained to allow for viability of goshawks (Suring et al. 1993).

Moser and Garton (2009) reported that all goshawk nests examined in their study area were found in stands whose average diameter of overstory trees was over 12.2 inches and all nest stands had $\geq 70\%$ overstory tree canopy. They described their findings as being similar to those described by Hayward and Escano (1989), who reported that nesting habitat “may be described as mature to overmature conifer forest with a closed canopy (75-85% cover)....”

The EA fails to recognize goshawk long-term fidelity to nest stands.

Also please consider Beier and Drennan (1997), Crocker-Bedford (1990), Greenwald et al. (2005), Hayward and Escano (1989), La Sorte, et al. (2004), USDA Forest Service (2000b) and Patla (1997) as best available science for northern goshawk biology.

Please disclose the frequency and geographic extent of goshawk nest searches during the past 10 years in the project area.

The FS did not utilize goshawk survey methodology consistent with the best available science. For example the recent and comprehensive protocol, “Northern Goshawk Inventory and Monitoring Technical Guide” by Woodbridge and Hargis, 2006. Also, USDA Forest Service 2000b state:

A common thread in the interviews was the lack of a landscape approach in providing goshawk habitat well distributed across the Forest (Squires, Reynolds, Boyce). Reynolds was deeply concerned that both alternatives focus only on 600 acres around known goshawk nests. He was concerned that this direction could be keeping the goshawk population artificially low. Because goshawks move around within their territories, they are very difficult to find (Reynolds). There might be more goshawks on the Forest than currently known (Squires). One or two years of goshawk surveys is not enough (Reynolds). Some pairs may not lay eggs for five years (Reynolds). To get confidence in identifying nesting goshawk pairs, four to six years of surveys are needed (Reynolds). (Emphasis added.)

The FS’s Samson (2006a) reports says that 110 breeding individuals (i.e. 55 pairs) are necessary for a viable goshawk population in R1. Attachment 1 is a map showing the results from the 2005 R1 region-wide goshawk survey using their Woodbridge and Hargis goshawk monitoring protocol, which is published as a USFS technical report. The 2005 detection map says there were 40 detections in

2005 in Region 1. So the results of this survey essentially show that the population in Region 1 is not viable according to the agency's own science (only 40 instead of 55). And some of the detections may have been individuals using the same nest, so the number of nests (and therefore number of breeding pairs) could be even lower than 40.

Remedy:

Withdraw the draft decision and write an EIS that fully complies with the law and disclose the following:

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

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

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

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

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

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

The EA and resource reports cite relevant literature, inventory, and monitoring data to discuss the existing condition of resources and potential effects of the Proposed Action. They also contain information on past, present, and reasonably foreseeable actions that could contribute to cumulative effects. The general nature of the comments does not help us identify specific information that the commenter believes is necessary for the analysis or describe how that information might change the results of the analysis.

The Selway Saginaw project does not demonstrate that the project complies with the Forest Plan requirements for old growth in violation of NEPA, NFMA, and the APA.

Climate Change

We wrote in our comments:

The Scoping Notice Did Not Address how the Proposed Project Will Affect Climate Change.

It is clear that logging increases the level of heat-trapping gasses in the atmosphere, especially carbon. This project is clearly one that will directly increase the effects of climate change by reducing the area of mature forest habi-

tats. This issue is not addressed in the scoping notice. At a minimum, the agency needs to define why climate change is not a priority for management of these public lands.

The Forest Service responded:

Effects to carbon are summarized at a Forest-scale in the Beaverhead-Deerlodge Carbon Assessment, included in the project record. This paper discusses the carbon storage of younger compared to mature forested stands. It also discusses the relative contributions of various disturbances on the Forest's carbon emissions and storage.

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.

The Forest Service is violating NEPA by claiming that the project would have such minimal effect on climate change that they didn't bother to analyze it.

Please see the attached order, Case 4:20-cv-00076-BMM, by the Montana Federal district Court where the court ruled that BLM once again failed to consider possible damage to the environment caused by mining coal when setting land management policies governing a major coal-producing region in Wyoming and Montana.

This is no different from what the Forest Service is doing with the Selway Saginaw Project. The Selway Saginaw project is in violation of NEPA, NFMA, and the APA and the Forest Plan.

Remedy

Withdraw the draft decision notice and write an EIS that fully complies with the law.

Thank you for your time and consideration of our objection.

Sincerely yours,

/s/

Michael Garrity

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