June 9, 2021, Via Email

Objection against the Draft Decision Notice, FONSI, and Environmental Assessment for the Pintler Face Project, Forest Service, Beaverhead National Forest,
Wisdom Ranger District

Identification of Objectors:

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

PO Box 505

Helena, MT 59624;

Phone 406-459-5936.

And for

Sara Johnson

Native Ecosystems Council

PO Box125
Willow Creek, MT 59760.

And for

Jason L. Christensen
Director Yellowstone to Uintas Connection
P.O. Box 363
Paris, Idaho 83261
jason@yellowstoneuintas.org

Signed for Objectors this 9th day of June 2021

/s/ Michael Garrity

Michael Garrity

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

The Responsible Official, is Wisdom Ranger District, Ranger Molly Ryan has made available a Draft Decision Notice for the Pintler Face Project and its associated Finding of No Significant Impact (FONSI). The Pintler Face project area is 10 miles northwest of Wise River, Montana, on the south face of the Anaconda-Pintler Mountains in the Wise River and Wisdom Ranger Districts. of the Beaverhead-Deerlodge National Forest (BDNF) and

covers approximately 73,624 acres in Beaverhead and Deer Lodge Counties.

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/?project=49404

Ranger Ryan selected Alternative 2, the Proposed Action with modifications and design features, as described in the DDN and as displayed in Appendix A of Draft Decision Notice.

This decision includes management activities on 11,224 acres. The selected alternative calls for clearcutting (3459 acres), prescribed burning and logging of aspen (564 acres), commercial thinning by logging (5793 acres), pre-commercial thinning (1532 acres), Douglas fir understory

burning (293 acres), burning and or cutting (5376 acres), and temporary road building (11.1 miles). As a result of the Draft DN, individuals and members of the above mentioned groups would be directly and significant-ly affected by the logging and associated activities. Appellants are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the 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
Sara Johnson
Native Ecosystems Council

P.O. Box 125
Willow Creek, MT 59760

2. Signature of Lead Objector:

Signed this 22nd day of April 2021 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:

Pintler Face Project; Molly Ryan, Wisdom Ranger District, Ranger is the Responsible Official; The project is in the Wisdom and Wise River Ranger District of the Beaverhead-Deerlodge National Forest. Ranger Ryan chose

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

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

Location

The Pintler Face project area is 10 miles northwest of Wise River, Montana, on the south face of the Anaconda-Pintler Mountains in the Wise River and Wisdom Ranger Districts. of the Beaverhead-Deerlodge National Forest (BDNF) and covers approximately 73,624 acres in Beaverhead and Deer Lodge Counties.

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

6. Suggested Remedies that would Resolve the Objection:

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

7. Supporting Reasons for the Reviewing Office to Consider:

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

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

Suggested Remedies to Resolve the Objection:

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

Supporting Reasons for the Reviewing Office to Consider

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

season due to a lack of security on public lands. The public interest is not being served by this project.

Thank you for the opportunity to object.

NOTICE IS HEREBY GIVEN that, pursuant to 36 CFR Part 218, AWR objects to the Draft Decision Notice (DDN) and Finding of No Significant Impact (FONSI) with the legal notice published on April 25, 2021, including the Responsible Official's adoption of proposed or selected Alternative.

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

If the project is approved as proposed, individuals and members of the above-mentioned groups would be directly and significantly affected by the logging and associated activities. Objectors are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the 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.

Yellowstone to Uintas Connection did not have an opportunity to comment since the last published legal

notice was in 2017 before Yellowstone to Uintas Connection became involved.

We wrote in our comments, ***Whitebark Pine***

Not all ecosystems or all Rocky Mountain landscapes have experienced the im- pacts of fire exclusion. In some wilderness areas, where in recent decades natural fires have been allowed to burn, there have not been major shifts in vegetation composition and structure (Keane et al. 2002). In some alpine ecosystems, fire was never an important ecological factor. In some upper subalpine ecosystems, fires were important, but their rate of occurrence was too low to have been significantly altered by the relatively short period of fire suppression (Keane et al. 2002). For example, the last 70 to 80 years of fire suppression have not had much influence on subalpine landscapes with fire intervals of 200 to several hundred years (Romme and Despain). Consequently, it is unlikely that fire exclusion has yet to significant- ly alter stand conditions or forest health within Rocky Mountain subalpine ecosys- tems.

The scoping notice says on page 5: "Opportunities exist to promote and expand the presence of whitebark pine by removing competition and creating openings for natural regeneration through thinning and regeneration treatments, both commercial and non-commercial. The use of fire is the most effective method for stimulating

natural regeneration and is proposed as a potential treatment. Planting of rust- resistant seedlings is also an option in certain areas where site conditions are ap- propriate."

Whitebark pine seedlings, saplings and mature trees, present in subalpine forests proposed for burning, would experience mortality from project activity. Whitebark pine is fire intolerant (thin bark). Fire favors whitebark pine regeneration (through canopy opening and reducing competing vegetation) only in the presence of ade- quate seed source and dispersal mechanisms (Clarks Nutcracker or humans planti- ng whitebark pine seedlings).

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

Montana is currently experiencing a mountain pine beetle epidemic. Mountain pine beetle prefer large, older whitebark pine, which are the major cone producers. In some areas the few remaining whitebark that show the

potential for blister rust re- sistance are being attacked and killed by mountain pine beetles, thus accelerating the loss of key mature cone-bearing trees.

Are whitebark pine seedlings and saplings present in the subalpine forests pro- posed for burning and logging? In the absence of fire, this naturally occurring whitebark pine regeneration would continue to function as an important part of the subalpine ecosystem. Since 2005, rust resistant seed sources have been identified in the Northern Rockies (Mahalovich et al 2006). Due to the severity of blister rust infection within the region, natural whitebark pine regeneration in the project area is prospective rust resistant stock.

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

What surveys have been conducted to determine presence and abundance of white- bark pine re-generation? If whitebark pine seedlings and saplings are present, what measures will be taken to protect them? Please include an alternative that excludes burning in the presence of

whitebark pine regeneration (consider 'Daylighting' seedlings and saplings as an alternative restoration method). Will restoration efforts include planting whitebark pine? Will planted seedling be of rust-resistant stock? Is rust resistant stock available? Would enough seedlings be planted to replace white- bark pine lost to fire activities? Have white pine blister rust surveys been accom- plished? What is the severity of white pine blister rust in proposed action areas?

FS Response: Whitebark pine was initially part of the purpose and need of the project. Although whitebark pine is present in the mid-elevation stands the proposed action targets, it will not dominate as it does in higher elevation stands since it will be outcompeted by other species such as lodgepole pine, subalpine fir, Engelmann spruce, and Douglas-fir. For this reason, the proposed action does not address the Forest Plan whitebark pine objective. In proposed treatment units; however, there is a project design feature in place to retain all whitebark pine 3" in diameter and greater, where feasible.
We are not proposing any burning in the subalpine forests.
Please see the Sensitive Plants section of the EA for the existing condition of whitebark pine in the project area.

Page 164 of the EA states:

Whitebark pine specific surveys were conducted in proposed commercial
and pre-commercial thin treatment units in 2015 by the Forest Service
Botany Field Crew.
One-acre polygons were randomly located within treatment units (office exercise). Field visits tallied the number and size class of whitebark pine individuals encountered within the one-acre polygons.
Units surveyed included: T01, T06, T07, T09, T19, T20, T22, T24, T30, T31, T32, T38, T15/PCT01, and PCT04.
Aerial imagery and topographic maps were used to identify potential habitat for sensitive plants within non-commercial treatment units in sagebrush, aspen, and riparian units. Botany survey units were delineated based on this exercise. Not all units were surveyed due to workload, however the sample of units that were surveyed is representative of conditions throughout the project area. Those units surveyed for sensitive plants by the Botany Crew in 2017 included the following: R11, PCT03, DFB01, DFB02, S09, S10, S13, S14, S21, S23, S24, S28, S30, S31, S37, S40, and S42.

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

Remedy: Choose the No Action alternative or pull the draft decision and write an EIS that follow all laws and requirements in the Forest Plan. Since Whitebark pine are now proposed to be listed under the ESA, you must formally reconsult with the FWS on the impact of the project on whitebark pine. To do this the Forest Service will need to have a complete and recent survey of the entire project area for whitebark pine and consider planting whitebark pine as the best available science by Keene et al. states is the only way to get new whitebark pine to grow. The Forest Service response is incorrect that the project area does not contain high elevation stands. Appendix A, Maps - Whitebark pine clearly show that there are whitebark pine stands in the project area.

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

The Project area includes whitebark pine.

The whitebark pine present in the Pintler Face Project area represents a major source within the larger geographic area. Hundreds of acres of clearcutting and burning around individual whitebark pine trees are proposed for the Project, including clearings around individual whitebark pines.

The Forest Service fails to disclose the incredibly high failure rate of these practices as a technique for natural regeneration of whitebark pine under these conditions. The Forest Service states they are not protecting whitebark pine trees under 3” dbh.

130. The Forest Service fails to provide any discussion of the high failure rate of planting seedlings in clearcuts.

131. The Forest Service does not disclose or address the results of its only long- term study on the effects of tree cutting and burning on whitebark pine. This study, named "Restoring Whitebark Pine

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

We wrote in our comments:

Why is The EA is 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 inched 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 allows more clearcut- ting 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 main- taining 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 popula- tion 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 al- lowing logging that does not comply with Kosterman and Squires findings is re- sulting 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 Man- agement Direction and reinitiate consultation with the FWS for the Lynx Amend- ment 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 227 of the EA states: "Linkage is defined as "Route that permits movement of individual plants (by dispersal) and animals from a Landscape Unit and/or habitat type to another similar Landscape Unit and/or habitat type". Linkage areas for Canada lynx were identified for the Northern Rockies Planning Area. Linkages mapped through the Anaconda Pintler mountains. These linkages are hypothetical and not substantiated by empirical data on lynx movement."

This is false. It is a violation of NEPA to put incorrect information in the EA.

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 nation- ally 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, wolver- ines, Canada lynx, gray wolves, and westslope cutthoat 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 For- est.

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

The Montana Department of Fish, Wildlife, and Parks has compiled a database of lynx occurrences and distribution throughout Montana from 1977 -1998. This in- formation was mapped on pages 244 and 247 of Ruggiero et al (1999) and shows numerous lynx 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 oc- currences were recorded in the Pioneer Mountains, including 13 harvested individ- uals (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 con- cludes 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 For- est 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 loca- tions 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 in- habited 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 Pi- oneer 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 corri- dors, 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 arbi- trary 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. The EA fails to take a hard look at this factor is in violation of NEPA. By failing to include a provision to protect winter lynx habi- tat, 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 exists, the project could not proceed because the logging autho- rized 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 bounder. 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 adequate- ly address

this issue in the EA and demonstrate compliance with the Lynx Amend- ment 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 excessively large, allowing the impacts to be minimized. The current best science suggests that female lynx home range as 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 stat- ed in AWR's comments, the best available science is now Kosterman's masters Thesis, "Correlates of Canada Lynx Reproductive Success in Northwestern Mon- tana" 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 inched 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 com- mon 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 spa- tially well- distributed across the landscape. Those authors also noted that in heavi- ly managed landscapes, retention and recruitment of lynx habitat should be a prior- ity.

The Northern Rockies Lynx Management Direction is inadequate to ensure con- servation and recovery of lynx. The amendments fail to use the best available sci- ence on necessary lynx habitat elements, including but not limited to, failing to in- clude 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 re- duces 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, pro- vided 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 de- termine whether the project has the potential to appreciably reduce the conserva-

tion value. The ESA requires the use of the best available science at the site- spe- cific level. It does not allow the agencies to make a gross determination that allow- ing 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 with in 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 analyz- ing 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 un- suitable 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 habi- tat, 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 oc- curred 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 criti- cal 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 "ha- rass" as "actions that create the likelihood of injury to listed species to such an ex- tent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering". The project will harm lynx.

The Forest Service responded:

FS Response: Kosterman (2018) and Holbrook (2016) (2017) are addressed in the EA. These papers emphasize the importance of multi-story habitat and horizontal cover in spruce-subalpine fir plant communities which the NRLMD addresses . Application of the NRLMD assures these important habitat components are retained in this project by excluding habitat that is currently providing

high-quality snowshoe hare habitat from treatment, leaving all high-quality habitat acres to lynx and lynx prey. Literature referenced in this comment was addressed by the Regional Office in 2018 (Hanvey, 2018)

Yes, Lynx may avoid clear-cuts in the winter until habitat regenerates to stand-initiation structural stage habitat . This was analyzed in the wildlife section of the EA (Appendix D).

FS Response: The project follows applicable law and policy for Canada Lynx and can be found in Terrestrial Wildlife section of the EA for lynx analysis. A biological assessment was prepared for this project and submitted on April 7, 2021.

Remedy: Choose the No Action Alternative or write an EIS that fully complies with the law. 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-DeerlodgeNational 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).
The EA doesn't disclose if the FS conducted lynx occurrence surveys of habitat in the LAUs.

The EA doesn't 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.

The EA fails to 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..."

The Pintler Face EA also fails to quantify and disclose the cumulative effects on Canada lynx due to trapping or from use of the road and trail networks in the project area.

In failing to properly analyze and disclose cumulative effects, the EA violates NEPA and the ESA.

The EA claims that sufficient denning habitat occurs in the LAU, but it fails to explain how it arrived at that conclusion. 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-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. 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 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.

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 ex- cepted from Christensen's conclusion that "[a]ny motorized vehicle use on roads

will reduce habitat effectiveness." BDNF:L- 055:4 (emphasis added). The defini- tion section ofthe FEIS does not support the exclusion of temporary roads either. "Road density" is defined as the "[n]umber ofmiles 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." ld. 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 man- agement," id., and as "[a] road or trail necessary for emergency operations, or au- thorized 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 FEIS 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 ofthe problem," Lands Council I, 537 F.3d at 993, and must address this issue on remand in a supplemen- tal 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 responded:

FS Response: The Forest Plan includes management direction that adequately provides for conservation of individual species at the plan and project level, considering the topics discussed above in this comment. Please refer to response to comment L12 C43 for snag management and Forest Plan direction.

FS Response: a map of elk and moose winter range was included in the EA(Appendix A).
After discussion with the MTFWP area biologist, a majority of this area mapped on forest is not elk winter range as a majority of elk in this area migrate seasonally to the Bitterroot Valley, or Fleecer WMA to winter. Snow loading is a big factor in winter range habitat and the Big Hole valley mid elevations receive more snow than preferred by wintering elk.
The colonization of conifers would eventually result in a conversion of the sagebrush community to a conifer community thereby reducing the quality of winter range. Aspen and willow vigor would also continue to degrade with the expansion of conifers. Expanding conifers may provide more thermal security; however, proximity to cover becomes increasingly irrelevant as the quality of forage degrades and makes the area less desirable for ungulate 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. How many road closure violations have occurred in the Wisdom and Wise River Ranger Districts in the last 5 years? It there have been violations of road closures, for this reason, you cannot tier to the analysis in the Travel Plan because it is invalid.

Remedy: Choose the No Action Alternative or you must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use.

We wrote in our comments:

Please examine how this project could affect grizzly bears, lynx and other species listed under the Endangered Species Act. Are you complying with lynx critical habitat requirements? Please examine how this project will affect all MIS and sensitive species.

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 im- pacts 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 deci- sion 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 stan- dards 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 recov- ery 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.

th
the grizzly bear was a significant new circumstance that requires

U.S. Forest Service, --- F.3d ----, 2012 WL 336133 (9

Cir. 2012). The relisting of

In 2010, a dead grizzly bear was found northeast of the Project area near Elk Park, which is also within the wildlife security analysis area for the Project.

In 2005, a dead grizzly bear was found within the Mount Haggin Wildlife Man- agement 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 . . . ."

th

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

Cir. 1985).

The ESA requires agencies to assess the effect on endangered species of projects in areas where such species may be present. []. A failure to prepare

a biological assessment is comparable to a failure to prepare an environmental

th

impact statement." Thomas v. Peterson, 753 F.2d 754, 764 (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 Yellow- stone grizzly population. It also mentions that grizzly bears from the Northern Continental Divide population have almost connected with the Yellowstone popu- lation 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 cen- tury 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 moun- tains 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, in- cluding the rugged Big Belt mountains near this city, which sits between the two national parks.

Photo !!

!

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 informa- tion 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 be- comes a gauntlet in some places as bears migrate into towns, cities, ranches and farms.

We'll bring you stories that capture the wonders of the human body, nature and the cosmos.

You agree to receive occasional updates and special offers for The New York Times's products and services.

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 ex- ample, 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 oth- er 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 En- dangered 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 FEIS 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 compat- ibility of existing and planned management of grizzly bears to the general public.

There is no analysis of TMARD before or after project completion. Decommis- sioning 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 costs 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, and the Pintler Face 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 USFWS determination that the Pintler Face project is only temporary was not supported with any actual data. The science that demonstrates that disturbance ac- tivities must last longer than 10 years before significant adverse impacts occur to grizzly bears was not provided. Although the longer a project continues, potential impacts to bears increase. However, the 10-year threshold for insignificant distur- bance impacts has yet to be identified in the current best science. AS noted previ- ously, the RFP at Appendix G-46 defines a temporary disturbance as 3 years or less.

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 key linkage zone in the Pintler Face project could in- crease roads by over 60 miles and still meet the RFP "goal" for OMARD "after" the project is completed. This goal does not apply to activities during project im- plementation (RFP glossary at corrected 295). The Pintler Face project will last up to 10 years, during which the RFP goal for OMARD does not apply.

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 mea- suring 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 Pintler Face 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 the Pintler portion of the Forest, including within the project area.

-the BDNF is not maintain habitat connectivity for grizzly bears in the Pintler Face project area.

-the analysis of direct impacts for the project area do not use the current best sci- ence 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".

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 ex- cepted from Christensen's conclusion that "[a]ny motorized vehicle use on roads

will reduce habitat effectiveness." BDNF:L- 055:4 (emphasis added). The defini- tion section ofthe FEIS does not support the exclusion of temporary roads either. "Road density" is defined as the "[n]umber ofmiles 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." ld. 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 man- agement," id., and as "[a] road or trail necessary for emergency operations, or au- thorized 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 FEIS 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

ofthe problem," Lands Council I, 537 F.3d at 993, and must address this issue on remand in a supplemen- tal EIS.

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

FS Response: Refer to the table in the Elk Security section for existing and post implementation secure area which accounts for effects of all roads at different temporal scales; this displays effects of all road use during project implementation and allows comparison to the baseline as it exists today, as well as displays post-implementation security that will result when all temporary roads are obliterated, and routes identified for closure or decommissioning are implemented.

FS Response: Please see the Terrestrial Wildlife section of the EA for the known threatened and endangered species on the BDNF. Grizzly bears are considered threatened on the BDNF. The presence of, or even effect to a Threatened or Endangered species does not alone require analysis in an EIS.

.

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

reoccuring road closure violations. your assumptions in the Travel Plan that all closures would be effective has proven false. For this reason, you cannot tier to the analysis in the Travel Plan because it is invalid.

The Biological Opinion from the FWS states:

The BDNF manages for specific open motorized road and trail densities (OMRTD) to provide for wildlife security, including grizzly bears.

This density is managed year-round by Landscape in the Fall by Hunting District boundaries. The Big Hole Landscape (where the project lies) is ABOVE the desired OMRTD detailed in the Forest Plan, at 1.4 mi road/sq. mile(desired is 1.2 mi /sq. mi). Securityfor elk in the fall is managed by OMRTD during the fall general rifle season and Hunting District 319 is ABOVE the Forest Plan desired OMRTD at 0.7 mi/sq. mi(desired is 0.6 mi /sq. mi) and Hunting District 321 is AT the Forest Plan desired OMRTD at 1.1 mi/sq. mi(desired is 1.1mi /sq. mi).

Remedy: Choose the No Action Alternative or you must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis

for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use and include road restrictions that protect habitat for grizzlies and elk. Please write an EIS and comply with all laws including the Forest Plan OMRTD detailed in the Forest Plan.

The project is also in violation of the Forest Plan because it is part of a plan to have more logging that analyzed would occur in the Forest Plan.

Openings Greater than 40 acres.

We did not comment on this because theForest Service never notified us of this or published a legal notice as require by law. All that was done was the Forest Service has a “Public Notice” on their website.

This is a violation of NEPA, NFMA, the APA, the Forest Plan and the ESA.

Remedy: Withdraw the draft decision notice, publish a legal notice asking for public comment on opening over 40 acres and the write an EIS that fully complies with the law.

Climate Change

We wrote in our comments:

Disclose the impact of climate change on the efficacy of the proposed treatments;
FS Response: Please see the Carbon Storage Potential and Climate Change section of the EA.

The NEPA requires a “hard look” at climate issues, including cumulative effects of the “treatments” in the proposed project when added to the heat, drought, wind and other impacts associated with in- creased climate risk. Regeneration/Restocking failure following wildfire, prescribed fire and/or mechanical tree-killing has not been

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

NEPA requires disclosure of impact on "the human environment." Climate risk presents important adverse impacts on cultural, economic, environmental, and social aspects of the human environment. – people, jobs, and the economy – adjacent to and near the project area. Challenges in predicting responses of individual tree species to climate are a result of species competing under a never-before-seen climate regime – one forests may not have experienced before either.

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

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

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

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

REMEDY

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

The EA does not analyze or disclose the body of science that implicates logging activities as a contributor to reduced carbon stocks in forests and increases in greenhouse gas emissions. The EA fails to provide estimates of the total amount of carbon dioxide (CO_2) or other greenhouse gas emissions caused by FS management actions and policies —forest-wide, regionally, or nationally. Agency policymakers seem comfortable maintaining a position that they need not take any leadership on this issue, and obfuscate via this EA to justify their failures.

The best scientific information strongly suggests that management that involves removal of trees and other biomass increases atmos- pheric CO_2. Unsurprisingly the EA doesn't state that simple fact.

The BDNF has not yet accepted that the effects of climate risk represent a significant issue, and eminent loss of forest resilience already, and a significant and growing risk into the "foreseeable future?"

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

Global warming and its consequences may also be effectively irreversible which implicates certain legal consequences under NEPA and NFMA and ESA (e.g., 40 CFR § 1502.16; 16 USC §1604(g); 36 CFR §219.12; ESA

Section 7; 50 CFR §§402.9, 402.14). All net car- bon emissions from logging represent "irretrievable and irreversible commitments of resources."

It is clear that the management of the planet's forests is a nexus for addressing this largest crisis ever facing humanity. Yet the EA and Draft Decision Notice fails to even provide a minimal quantitative analysis of project- or agency-caused CO_2 emissions or consider the best available science on the topic. This is immensely unethical and immoral. The lack of detailed scientific discussions in the EA and Draft Decision Notice concerning climate change is far more troubling than the document's failures on other topics, because the consequences of unchecked climate change will be disastrous for food production, sea level rise, and water supplies, resulting in complete turmoil for all human societies. This is an issue as serious a nuclear annihilation (although at least with the latter we're not already pressing the button).

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

climate change is and will be bringing forest change. For the Galton project, this did not happen, in violation of NEPA.

The EA fails to consider that the effects of climate change on the project area, including that the "desired" vegetation conditions will

likely not be achievable or sustainable. The EA fails to provide any credible analysis as to how realistic and achievable its desired condi- tions are in the context of a rapidly changing climate, along an un- predictable but changing trajectory.

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

The EA does not analyze or disclose the body of science that implicates logging activities as a contributor to reduced carbon stocks in forests and increases in greenhouse gas emissions. The EA fails to provide estimates of the total amount of carbon dioxide (CO_2) or other greenhouse gas emissions caused by FS management actions and policies —forest-wide, regionally, or nationally. Agency policy-

makers seem comfortable maintaining a position that they need not take any leadership on this issue, and obfuscate via this EA to justify their failures.

The best scientific information strongly suggests that management that involves removal of trees and other biomass increases atmospheric CO_2. Unsurprisingly the FSEIS doesn't state that simple fact.

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

The EA also ignores CO_2 and other greenhouse gas emissions from other common human activities related to forest management and recreational uses. These include emissions associated with machines used for logging and associated activities, vehicle use for administrative actions, and recreational motor vehicles. The FS is simply ignoring the climate impacts of these management and other authorized activities.

The Committee of Scientists, 1999 recognize the importance of forests for their contribution to global

climate regulation. Also, the 2012 Planning Rule recognizes, in its definition of Ecosystem services, the "Benefits people obtain from ecosystems, including: (2) Regulating services, such as long term storage of carbon; climate regulation..."

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

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

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

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

Resource Council, Northern Plains Resource Council, the Sier- ra Club, and the Natural Resources Defense Council.

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

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

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

ROB CHANEY rchaney@missoulian.com
Mar 11, 2019

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

Courtesy Kim Davis

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

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

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

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

"What's striking is if you asked scientists two decades ago how cli- mate warming would play out, this is what they expected

we'd see," Higuera said. "And now we're starting to see those predictions on the impact to ecosystems play out."

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

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

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

each tree had been growing and what conditions had been when it sprouted.

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

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

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

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

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

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

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

Another factor driving regeneration is the availability of surviving seed trees that can repopulate a burn zone. If one remains within 100 meters of the burned landscape, the area can at least start the process of reseeding. Unfortunately, the trend toward high-severity fires has reduced the once-common mosaic patterns that left some undamaged groves mixed into the burned areas.

Higuera said he hoped land managers could use small or prescribed fires to make

landscapes more resilient, as well as restructure tree- planting efforts to boost the chances of heavily burned places.

Rob Chaney

Natural Resources & Environment Reporter

Natural Resources Reporter for The Missoulian.

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

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

The NFMA requires in the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research find- ings, the FS must disclose the

significant trend in post-fire regeneration failure. The forest has already experienced considerable difficulty restocking on areas that have been subjected to prescribed fire, clear-cut logging, post- fire salvage logging and other even-aged management “systems.”

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

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

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

“At dry sites across our study region, seasonal to annual climate conditions over the past 20 years have crossed these thresholds, such that conditions have become increasingly unsuitable for regenera- tion. High fire severity and low seed availability further reduced the probability of post-fire regeneration. Together, our results

demon- strate that climate change combined with high severity fire is leading to increasingly fewer opportunities for seedlings to establish after wildfires and may lead to ecosystem transitions in low-elevation ponderosa pine and Douglas-fir forests across the western United States." Wildfires and climate change push low-elevation forests across a critical climate threshold for tree regeneration, PNAS (2018), Kimberley T. Davis, et al. (Please, find attached)

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

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

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

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

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

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

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

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

comments on the particu- lar proposed project or activity and the content of the objection..."

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

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

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

The regulations shall include, but not be limited to-

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

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

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

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

(a) Resource protection. All management prescriptions shall—

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

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

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

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

In the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research findings, NEPA analysis and disclosure must address the well-documented trend in post-fire regeneration failure. The project has already experienced difficulty restocking on areas that burned in the 1988 wildfire. NFMA (1982)

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

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

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

The EA fails to acknowledge the likelihood that "...high seedling and sapling mortality rates due to water stress, competing vegetation, and repeat fires that burn young stands," which will likely lead to a dramatic increase in

non- forest land acres. Many acres of (conifers) trees already fail to regenerate. (Emphasis added). A map of these areas is required. In many areas, conifers haven't shown "resilience" enough to spring back from disturbance.

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

Excerpt:

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

When replanting a forest after disturbances, does it make sense to try to reestablish what was there before? Or, should we find re-plant material that might be more ap-

propriate to current and future conditions of a changing environment?

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

"This may no longer be the case."

REMEDY

Suggested remedies: Choose the No Action Alternative or Forest Plan Amendments are needed to establish standards and guidelines which acknowledge the significance of climate risk to other multiple-uses. Amendments must not only analyze forest-wide impacts, but the regional, national and global scope of expected environmental changes. Based on scientific research, the existing and projected irretrievable losses must be estimated. Impacts caused by gathering cli- mate risk (heat, drought, wind) and its symptoms, including wildfire, insect activity, and regeneration failure and mature tree mortality must be analyzed cumulatively.

The selected scientific research presented above is only a sampling of the growing body of evidence that supports the need to disclose the consequences of the proposed action in a proper context – a hotter forest environment, with more frequent drought cycles. This evidence brings into question

the Purpose and Need for the project. It also requires the FS to reconsider the assumptions, goals and expected desired future condition expressed in the existing Forest Plan. Plan expectations must be amended at the programmatic level before proceeding with proposed project-level action(s). According to best available science, implementing the project will most likely accomplish the opposite of the desired future condition. We can adjust as we monitor and find out more. However, to willfully ignore what we do know and fail to disclose it to the public is a serious breach of public trust and an unconscionable act. Climate risk is upon us. A viable alternative to the proposal is not only reasonable and prudent, but it is the right thing to do.

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

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

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

NEPA requires disclosure of impact on “the human environment.” Climate risk presents important adverse impacts on cultural, eco- nomic, environmental, and social aspects of the human environment. – people, jobs, and the economy – adjacent to and near the project area. “Challenges in predicting responses of individual tree species to climate are a result of species competing under a never-before- seen climate regime – one forests may not have experienced before either.

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

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

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

REMEDY

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

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

evaluate the climate change impacts of the federal government coal pro- gram. Please find the order attached.

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

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

Resource Council, Northern Plains Resource Council, the Sier- ra Club, and the Natural Resources Defense Council.

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

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

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

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

The NFMA requires in the face of increasing climate risk, growing impacts of wildfire and insect activity, plus scientific research findings, the FS must disclose the significant trend in post-fire regenera- tion failure. The forest has already experienced considerable difficul- ty restocking on areas that have been subjected to prescribed fire, clear-cut

logging, post- fire salvage logging and other even-aged management “systems.”

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

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

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

“At dry sites across our study region, seasonal to annual climate conditions over the past 20 years have crossed these thresholds, such that conditions have

become increasingly unsuitable for regenera- tion. High fire severity and low seed availability further reduced the probability of post-fire regeneration. Together, our results demon- strate that climate change combined with high severity fire is leading to increasingly fewer opportunities for seedlings to establish after wildfires and may lead to ecosystem transitions in low-elevation ponderosa pine and Douglas-fir forests across the western United States." Wildfires and climate change push low-elevation forests across a critical climate threshold for tree regeneration, PNAS (2018), Kimberley T. Davis, et al. (Please, find attached)

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

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

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

The Forest Plan is based on assumptions largely drawn from our past that no longer hold true. These assumptions, made decades ago, must be challenged, and amended, where overwhelming evidence demon- strates a change of course is critical. It is time to take a step back, as- sess the

present and future and make the necessary adjustments, all in full public disclosure to the Congress and the American people. Many acres of (conifers) In many areas, conifers haven't shown "re- silience" enough to spring back from disturbance. Regeneration is already a big problem. (Emphasis added).

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

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

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

A proper reexamination of the assumptions relating to resilience and sustainability contained in the Forest Plan is necessary. Scientific re- search supporting our comments focus on important data and analy- sis. A full discussion

and disclosure of the following is required: 1) trends in wildfires, insect activity and tree mortality, 2) past regeneration success/failure in the project area, and 3) climate-risk science – some of which is cited below. Our comments, and supporting scientific re- search clearly "demonstrates connection between prior specific written comments on the particu- lar proposed project or activity and the content of the objection..."

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

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

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

The regulations shall include, but not be limited to-

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

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

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

NFMA regulations at 36 C.F.R. § 219.27 (Management require- ments) state:

(a) Resource protection. All management prescriptions shall—

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

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

(5) Avoid permanent impairment of site productivity and ensure con- servation of soil and water resources;

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

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

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

The Forest Plan is based on assumptions largely drawn from our past. These assumptions must be challenged, and amended, where overwhelming evidence demonstrates a change of course is critically important. It is time to take a step back, assess the future and make the necessary adjust-

ments, all in full public disclosure to the Congress and the American people.

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

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

Excerpt:

"Forests are changing in ways they've never ex- perienced before because today's growing conditions are different from anything in the past. The climate is chang- ing at an

unprecedented rate, exotic diseases and pests are present, and landscapes are fragmented by human ac- tivity often occurring at the same time and place.

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

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

"This may no longer be the case."

REMEDY

Suggested remedies: Choose the No Action Alternative or Forest Plan Amendments are needed to establish standards

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

The selected scientific research presented above is only a sampling of the growing body of evidence that supports the need to disclose the consequences of the proposed action in a proper context – a hotter forest environment, with more frequent drought cycles. This evidence brings into question

the Purpose and Need for the project. It also requires the FS to reconsider the assumptions, goals and expected desired future condition expressed in the existing Forest Plan. Plan expectations must be amended at the programmatic level before proceeding with proposed project-level action(s). According to best available science, implementing the project will most likely accomplish the opposite of the de-

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

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

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

.

Monarch Butterfly.

Monarch butterflies have been proposed for listing under the ESA. This is new information that was not available when we submitted our comments.

The project is in violation of the ESA, NFMA, and the APA for not formally consulting with the FWS on the impact of the project on the Monarch butterfly.
Remedy

Please formally consult with the FWS on the impact of the Pintler Face project on the Monarch Butterfly.

Water quality

We wrote in our comments:

Disclose the baseline condition, and expected sedimentation during and after activities, for all streams in the area;
FS Response: Baseline sedimentation from ongoing natural and anthropomorphic sources such as cattle grazing is highly variable and not a valuable tool for understanding other project effects which are not anticipated to have measurable changes to sedimentation. We believe we can limit sedimentation to negligible levels with the implementation of design measures identified for each treatment type. Within the analysis area, the Proposed Action would have no measurable effect on water quality, on 303(d) listed water bodies, or on stream function. A positive effect may be observed with the implementation of BMP's on sediment delivery sites and non-commercial vegetation treatments in the project area. Please see the Hydrology section of the EA for more information.

We also wrote: We request a careful analysis of the impacts to fisheries and water quality, including

considerations of sedimentation, increases in peak flow, channel stability, risk of rain-on-snow events, and increases in stream water temperature. Please disclose the locations of seeps, springs, bogs and other sensitive wet areas, and the effects on these areas of the project activities. Where livestock are permitted to graze, we ask that you assess the present condition and continue to monitor the impacts of grazing activities upon vegetation diversity, soil compaction, stream bank stability and subsequent sedimentation.

How will the project effect arctic grayling and their habitat?

FS Response: The Aquatic Species section of the EA contains an analysis ofthe proposed action on fisheries, and the Hydrology section contains an analysis of the proposed action on water quality. We already provided maps with the locations of known seeps, springs, and bogs in Appendix A of the original EA. Contrary to your stat ement, the project area does not contain any watersheds with bull trout occupied orcritical habitat, or proposed critical habitat, as bull trout do not exist east of the Continental Divide, which is where this project is located. Arctic grayling is discussed further in the Aquatic species section of the EA.

L12 Comment 92: Please disclose in the NEPA document the results of up-to-date monitoring of fish habitat and

watershed conditions and how this project will affect the fish in the project area.
FS Response: Up-to-date monitoring of fish habitat and watershed conditions is presented in the Aquatic Species and Hydrology sectionsof the EA, respectively.
Effects to fisheries is disclosed in the Aquatic Species section.

The project is in violation of NFMA, NEPA, the APA, the Clean Water Act, and Montana Water Quality Act. Sediment from the project will affect water quality and arctic grayling and other native fish. Best Management Practices, which are the primary mechanism to enable the achievement of state water quality standards and minimize non-point impacts have not been proven effective.

Old Growth

We wrote in our comments:

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

FS Response: The description of our evaluation of old growth is provided under the old growth heading in the Vegetation Section.
Detail vegetation assessments completed in the proposed timber units found no old growth, available in the project file. There are no proposed activities in old growth or potential old growth stands, therefore no direct, indirect or cumulative effects to old growth are e xpected. No further analysis of old growth for the Pintler Face project was needed as there are no anticipated effects.

We wrote in our comments.
Disclose the method used to quantify old growth forest acreages and its rate of error based upon field review of its predictions;
FS Response: Please see response to L12, Comment U above.
We wrote in our comments:
Disclose the historic levels of mature and old growth forest in the Project area;
FS Response: Please see response to L12, Comment U above.

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

FS Response: The Forest Plan and its associated management direction adequately provides for wildlife species viability and provides necessary management direction to achieve conservation of individual species at the project level. Please see the FEIS for the Forest Plan.

We wrote in our comments:
Disclose the amount of mature and old growth forest that will remain after implementation;
FS Response: The description of our evaluation of old growth is provided under the old growth heading in the Vegetation Section.

Since no activities will occur in old growth stands, this project will not reduce the amount of old growth in the project area.

We wrote in our comments:

Disclose the amount of current habitat for old growth and mature forest dependent species in the Project area; FS Response: The current amount of old growth and description of our evaluation of old growth is provided under the old growth heading in the Forest and Rangeland Vegetation Sectionin the EA. An inventory of old growth was performed within the proposed timber units. Surveys did not find stands meeting the minimum old growth criteria. See the EA for more information. See

also the Canada lynx section of the Wildlife Report in Appendix D of the EA.

The EA and Draft Decision Notice does not demonstrate the the project is in compliance with the old growth provisions of the Forest Plan in violation of NEPA, NFMA, the APA, the ESA and the Forest Plan.

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

Thank you for your time and consideration of our concerns.

Sincerely yours,
Mike Garrity
/s/
(Lead Objector)
Executive Director
Alliance for the Wild Rockies
P.O. Box 505
Helena, MT 59624
406-459-5936

And for

Sara Johnson
Native Ecosystems Council
P.O. Box 125
Willow Creek, MT 59760

And for

Jason L. Christensen
Director Yellowstone to Uintas Connection
P.O. Box 363
Paris, Idaho 83261
jason@yellowstoneuintas.org