June 19, 2023

Basin Creek - Butte Watershed EA comments

The Alliance for the Wild Rockies, Council for Wildlife and Fish, Center for Biological Diversity, and Native Ecosystems Council (collectively "Alliance") submit the following comments on the environmental analysis (EA) for the proposal. The Forest Service must complete a full environmental impact statement (EIS) for this Project because the scope of the Project will likely have a significant individual and cumulative impact on the environment. Alliance has reviewed the statutory and regulatory requirements governing National Forest Management projects, as well as the relevant case law, and compiled a check-list of issues that must be included in the EIS for the Project in order for the Forest Service's analysis to comply with the law. Following the list of necessary elements, Alliance has also included a general narrative discussion on possible impacts of the Project, with accompanying citations to the relevant scientific literature. These references should be disclosed and discussed in the EIS or in An EA if you refuse to write and EIS for the Project.

I. NECESSARY ELEMENTS FOR PROJECT EIS :

A. Disclose all Beaverhead-Deerlodge National Forest Plan requirements for logging projects and explain how the Project complies with them;
B. Disclose the acreages of past, current, and reasonably foreseeable logging, grazing, and road-building activities within the Project area;
C. Solicit and disclose comments from the Montana Department of Fish, Wildlife, and Parks and the U.S. Fish and Wildlife Service regarding the impact of the Project on fish and wildlife habitat;
D. Solicit and disclose comments from the Montana Department of Environmental Quality regarding the impact of the Project on water quality;
E. Disclose the biological assessment for the candidate, threatened, or endangered species with potential and/or actual habitat in the Project area;
F. Disclose the biological evaluation for the sensitive and management indicator species with potential and/or actual habitat in the Project area;
G. Disclose the snag densities in the Project area, and the method used to determine those densities;
H. Disclose the current, during-project, and post-project densities in the Project area;
I. Disclose the number of road closure violations in the Madison Ranger District in the last 5 years;
J. Disclose the Beaverhead-Deerlodge National Forest's record of compliance with state best management practices regarding stream sedimentation from ground-disturbing management activities;

K. Disclose the Beaverhead-Deerlodge National Forest's record of compliance with its monitoring requirements as set forth in its Forest Plan;

L. Disclose the Beaverhead-Deerlodge National Forest's record of compliance with the additional monitoring requirements set forth in previous DN/FONSIs and RODs on the Beaverhead-Deerlodge National Forest;

M. Disclose the results of the field surveys for threatened, endangered, proposed, sensitive, and rare plants and species, in each of the proposed units;

N. Disclose the number of acres and location of Lynx Analysis Units (LAU)s that were removed from the BDNF without going through NEPA;

O. Disclose the level of current noxious weed infestations in the Project area and the cause of those infestations;

P. Disclose the impact of the Project on noxious weed infestations and native plant communities;

Q. Disclose the amount of detrimental soil disturbance that currently exists in each proposed unit from previous logging and grazing activities;

R. Disclose the expected amount of detrimental soil disturbance in each unit after ground disturbance and prior to any proposed mitigation/remediation;

S. Disclose the expected amount of detrimental soil disturbance in each unit after proposed mitigation/ remediation;

T. Disclose the analytical data that supports proposed soil mitigation/remediation measures;

U. Disclose how grazing affects aspen regeneration;
V. Disclose the timeline for implementation;
W. Disclose the funding source for non-commercial activities proposed;
X. Disclose the current level of old growth forest in each third order drainage in the Project area;
Y. Disclose the method used to quantify old growth forest acreages and its rate of error based upon field review of its predictions;
Z. Disclose the historic levels of mature and old growth forest in the Project area;
AA. Disclose the level of mature and old growth forest necessary to sustain viable populations of dependent wildlife species in the area;
BB. Disclose the amount of mature and old growth forest that will remain after implementation;
CC. Disclose the amount of current habitat for old growth and mature forest dependent species in the Project area;
DD. Disclose the amount of habitat for old growth and mature forest dependent species that will remain after Project implementation;
EE. Disclose the method used to model old growth and mature forest dependent wildlife habitat acreages and its rate of error based upon field review of its predictions;
FF. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security currently available in the area;
GG. Have forest fires contributed to a diverse landscape?

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

II. Disclose the level of current noxious weed infestations in the Project area and the cause of those infestations

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

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

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

MM. Disclose and address the concerns expressed by the ID Team in the draft Five-Year Review of the Forest Plan regarding the failure to monitor population trends of MIS, the inadequacy of the Forest Plan old growth standard, and the failure to compile data to establish a reliable inventory of sensitive species on the Forest;

NN. Disclose the actions being taken to reduce fuels on private lands adjacent to the Project area and how those activities/or lack thereof will impact the efficacy of the activities proposed for this Project;

OO. Disclose the efficacy of the proposed activities at reducing wildfire risk and severity in the Project area in the future, including a two-year, five-year, ten-year, and 20-year projection;

PP. Disclose when and how the Beaverhead-Deerlodge National Forest made the decision to

suppress natural wildfire in the Project area and replace natural fire with logging and prescribed burning;

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

RR. Disclose how Project complies with the Roadless Rule;

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

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

UU. Disclose the baseline condition, and expected sedimentation during and after activities, for all streams in the area;

VV. Disclose maps of the area that show the following elements:

WW. Disclose how will the project effect sage grouse;

XX. What is the fire cycle of sagebrush;

1. Past, current, and reasonably foreseeable logging units in the Project area;
2. Past, current, and reasonably foreseeable grazing allotments in the Project area;
3. Density of human residences within 1.5 miles from the Project unit boundaries;
4. Hiding cover in the Project area according to the Forest Plan definition;
5. Old growth forest in the Project area;
6. Big game security areas;

7. Moose winter range;

Weeds

Native plants are the foundation upon which the ecosystems of the Forest are built, providing forage and shelter for all native wildlife, bird and insect species, supporting the natural processes of the landscape, and providing the context within which the public find recreational and spiritual opportunities. All these uses or values of land are hindered or lost by conversion of native vegetation to invasive and noxious plants. The ecological threats posed by noxious weed infestations are so great that a former chief of the Forest Service called the invasion of noxious weeds “devastating” and a “biological disaster.” Despite implementation of Forest Service “best management practices” (BMPs), noxious weed infestation on the Forest is getting worse and noxious weeds will likely overtake native plant populations if introduced into areas that are not yet infested. The Forest Service has recognized that the effects of noxious weed invasions may be irreversible. Even if weeds are eliminated with herbicide treatment, they may be replaced by other weeds, not by native plant species.

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

The Forest Service's own management activities are largely responsible for noxious weed infestations; in particular, logging, prescribed burns, and road construction and use create a risk of weed infestations. The introduction of logging equipment into the Forest creates and exacerbates noxious weed infestations. The removal of trees through logging can also facilitate the establishment of noxious weed infestations because of soil disturbance and the

reduction of canopy closure In general, noxious weeds occur in old clearcuts and forest openings, but are rare in mature and old growth forests. Roads are often the first place new invader weeds are introduced. Vehicle traffic and soil disturbances from road construction and maintenance create ideal establishment conditions for weeds. Roads also provide obvious dispersal corridors. Roadsides throughout the project area are infested with noxious weeds. Once established along roadsides, invasive plants will likely spread into adjacent grasslands and forest openings.

Logging activities within the analysis area would likely cumulatively contribute to increases to noxious weed distribution and populations. As a disturbance process, logging has the potential to greatly exacerbate infestations of certain noxious weed species. Please disclose the amount of detrimental soil disturbance that currently exists in each proposed unit from previous logging and grazing activities. Please disclose the expected amount of detrimental soil disturbance in each unit after ground disturbance and prior to any proposed mitigation/remediation. Please disclose the expected amount of detrimental soil disturbance in each unit after proposed mitigation/remediation. Please also disclose the analytical data that supports proposed soil mitigation/remediation measures.

Dry site vegetation types and road corridors are extremely vulnerable, especially where recent ground disturbance

(timber management, road construction) has occurred. Units proposed for logging within project area may have closed forest service access roads (jammers) located within units. These units have the highest potential for noxious weed infestation and exacerbation through fire activities. Please provide an alternative that eliminates units that have noxious weeds present on roads within units from fire management proposals.

Please address the ecological, social and ascetic impact of current noxious weed infestations within the project area. Include an analysis of the impact of the actions proposed by this project on the long and short term spread of current and new noxious weed infestations. What treatment methods will be used to address growing noxious weed problems? What noxious weeds are currently and historically found within the project area? Please include a map of current noxious weed infestations which includes knapweed, Saint Johnswort, cheat grass, bull thistle, Canada thistle, hawkweed, hound's-tongue, oxeye daisy and all other Category 1, Category 2 and Category 3 weeds classified as noxious in the MONTANA COUNTY NOXIOUS WEED LIST. State-listed Category 2 noxious weed species yellow and orange hawkweeds are recently established (within the last 5 to 10 years) in Montana and are rapidly expanding in established areas. They can invade undisturbed areas where native plant communities are intact. These species can persist in shaded conditions and often grow underneath shrubs making eradication very difficult. Their stoloniferous (growing at the surface or below ground)

habit can create dense mats that can persist and spread to densities of 3500 plants per square mile (Thomas and Dale 1975). Are yellow and orange hawkweeds present within the project area?
Please address the cumulative, direct and indirect effects of the proposed project on weed introduction, spread and persistence that includes how weed infestations have been and will be influenced by the following management actions: road construction including new permanent and temporary roads, and skid trails proposed within this project; opening and decommissioning of roads represented on forest service maps; ground disturbance and traffic on forest service template roads, mining access routes, and private roads; removal of trees through salvage logging. What open, gated, and decommissioned Forest Service roads within the project area proposed as haul routes have existent noxious weed populations and what methods will be used to assure that noxious weeds are not spread into the proposed action units?

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

What commitment to a long-term, consistent strategy of application is being proposed for each weed infested area within the proposed action area? What long term monitoring of weed populations is proposed?

When areas treated with herbicides are reseeded on national forest land, they are usually reseeded with exotic grasses, not native plant species. What native plant restoration activities will be implemented in areas disturbed by the actions proposed in this project? Will disturbed areas including road corridors, skid trails, and burn units be planted or reseeded with native plant species?

The scientific and managerial consensus is that prevention is the most effective way to manage noxious weeds. The Forest Service concedes that preventing the introduction of weeds into uninfested areas is "the most critical component of a weed management program." The Forest Service's national management strategy for noxious weeds also recommends "develop[ing] and implement[ing] forest plan standards . . . ." and recognizes that the cheapest and most effective solution is prevention. Which units within the project area currently have no noxious weed populations within their boundaries? What minimum standards are in the Beaverhead-Deerlodge National Forest Plan to address

noxious weed infestations? Please include an alternative in the DEIS or EA that includes land management standards that will prevent new weed infestations by addressing the causes of weed infestation. The failure to include preventive standards violates NFMA because the Forest Service is not ensuring the protection of soils and native plant communities. Additionally, the omission of an EIS alternative that includes preventive measures would violate NEPA because the Forest Service would fail to consider a reasonable alternative. Disclose the impact of the Project on noxious weed infestations and native plant communities;

Rare Plants

The ESA requires that the Forest Service conserve endangered and threatened species of plants as well as animals. In addition to plants protected under the ESA, the Forest Service identifies species for which population viability is a concern as "sensitive species" designated by the Regional Forester (FSM 2670.44). The response of each of the sensitive plant species to management activity varies by species, and in some cases, is not fully known. Local native vegetation has evolved with and is adapted to the climate, soils, and natural processes such as fire, insect and disease infestations, and windthrow. Any management or

lack of management that causes these natural processes to be altered may have impacts on native vegetation, including threatened and sensitive plants. Herbicide application – intended to eradicate invasive plants – also results in a loss of native plant diversity because herbicides kill native plants as well as invasive plants. Although native species have evolved and adapted to natural disturbance such as fire on the landscape, fires primarily occur in mid to late summer season, when annual plants have flowered and set seed. Following fall fires, perennial root-stocks remain underground and plants emerge in the spring. Spring and early summer burns could negatively impact emerging vegetation and destroy annual plant seed.

What threatened, endangered, rare and sensitive plant species and habitat are located within the proposed project area? What standards will be used to protect threatened, rare, sensitive and culturally important plant species and their habitats from the management actions proposed in this project? Describe the potential direct and indirect effect of the proposed management actions on rare plants and their habitat.

Whitebark Pine

Not all ecosystems or all Rocky Mountain landscapes have experienced the impacts of fire exclusion. In some wilderness areas, where in recent decades natural fires have

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

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 appropriate.”

Whitebark pine seedlings, saplings and mature trees, present in subalpine forests proposed for burning, would experience mortality from project activity. Whitebark pine is fire intolerant (thin bark). Fire favors whitebark pine

regeneration (through canopy opening and reducing competing vegetation) only in the presence of adequate seed source and dispersal mechanisms (Clarks Nutcracker or humans planting whitebark pine seedlings).

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

Montana is currently experiencing a mountain pine beetle epidemic. Mountain pine beetle prefer large, older whitebark pine, which are the major cone producers. In some areas the few remaining whitebark that show the potential for blister rust resistance are being attacked and killed by mountain pine beetles, thus accelerating the loss of key mature cone-bearing trees.

Are whitebark pine seedlings and saplings present in the subalpine forests proposed for burning and logging? In the absence of fire, this naturally occurring whitebark pine regeneration would continue to function as an important part of the subalpine ecosystem. Since 2005, rust resistant

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

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

Pp. 35 of the EA states:

No healthy unsuppressed individuals were observed in the treatment units. The removal of lodgepole pine and Douglas-fir in treatment units through the proposed action could incidentally damage or remove seedling and sapling size whitebark pine. The existing whitebark pine

are not mature and are not anticipated to ever mature even after harvest and thinning activities occur, since competing other conifer species in these stands are expected to out-compete the stunted whitebark pine. Individuals were so sparse that loss of some seedling and sapling individuals is thought to have immeasurable effects on whitebark pine within the analysis area.

How did the young whitebark pine get there is whitebark pine in the area never mature?

Have you surveyed for whitebark pine? If not please do so. If you did, when did you last survey for whitebark pine?

Would it be better for whitebark pine if you choose the no action alternative?

Please disclose or address the results of the Forest Service's 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 EA and is therefore a violation of NEPA, NFMA, and the APA.

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

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."

Why is the EA misleading the public that this project will benefit whitebark pine when the Forest Service's own studies show that manual planting of whitebark pine is the only proven way to restore whitebark pine?

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

Please formally consult with the US FWS on the revised BDNF forest plan since whitebark pine were listed after the revised forest plan was signed.

Does the BDNF have any forest plan biological assessment, biological opinion, incidental take statement, and management direction amendment for whitebark pine?

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

"Anthropogenic change is creating or enhancing a number of stressors on forests. To aid forests in adapting to these stressors, we need to move beyond traditional spacing and age- class prescriptions and take into account the genetic variability within and among populations and the impact our actions may have on adaptive potential and forest trajectories. Because so little is known about the genetic diversity in most forest trees, and because it is key to effective conservation, studies of genetic diversity and structuring in forest trees should be a top priority in forest adaptation and conservation efforts."

The project is not following the best available science and is not meeting the purpose and need. Since Whitebark pine are now proposed to be listed under the ESA, you must formally reconsult with the FWS on the impact of the

project on whitebark pine. To do this the Forest Service will need to have a complete and recent survey of the entire project area for whitebark pine and consider planting whitebark pine as the best available science by Keene et al. states is the only way to get new whitebark pine to grow. The Forest Service is incorrect when it states that the project will have "No significant effects would result from this project or cumulatively with other activities on National Forest or adjacent lands that would affect at-risk plant species' ability to persist on the landscape."

Not all ecosystems or all Rocky Mountain landscapes have experienced the impacts of fire exclusion. In some wilderness areas, where in recent decades natural fires have been allowed to burn, there have not been major shifts in vegetation composition and structure (Keane et al. 2002). In some alpine ecosystems, fire was never an important ecological factor. In some upper subalpine ecosystems, fires were important, but their rate of occurrence was too low to have been significantly altered by the relatively short period of fire suppression (Keane et al. 2002). For example, the last 70 to 80 years of fire suppression have not had much influence on subalpine landscapes with fire

intervals of 200 to several hundred years (Romme and Despain). Consequently, it is unlikely that fire exclusion has yet to significantly alter stand conditions or forest health within Rocky Mountain subalpine ecosystems. Whitebark pine seedlings, saplings and mature trees, present in subalpine forests proposed for burning, would experience mortality from project activity. Whitebark pine is fire intolerant (thin bark). Fire favors whitebark pine regeneration (through canopy opening and reducing competing vegetation) only in the presence of adequate seed source and dispersal mechanisms (Clarks Nutcracker or humans planting whitebark pine seedlings). White pine blister rust, an introduced disease, has caused rapid mortality of whitebark pine over the last 30 to 60 years.

Keane and Arno (1993) reported that 42 percent of whitebark pine in western Montana had died in the previous 20 years with 89 per-cent of remaining trees being infected with blister rust. The ability of whitebark pine to reproduce naturally is strongly affected by blister rust infection; the rust kills branches in the upper cone bearing crown, effectively ending seed production. Montana is currently experiencing a mountain pine beetle epidemic. Mountain pine beetle prefer large, older whitebark pine, which are the major cone producers. In some areas the few remaining whitebark that show the potential for blister rust resistance are being attacked and killed by mountain pine beetles, thus accelerating the loss of key mature cone-bearing trees. Whitebark pine seedlings and saplings are very likely present in the subalpine forests proposed for burning and logging. In the absence of fire, this naturally

occurring white- bark pine regeneration would continue to function as an important part of the subalpine ecosystem.

Since 2005, rust resistant seed sources have been identified in the Northern Rockies (Mahalovich et al 2006). Due to the severity of blister rust infection within the region, natural whitebark pine regeneration in the project area is prospective rust resistant stock. Although prescribed burning can be useful to reduce areas of high-density subalpine fir and spruce and can create favorable ecological conditions for whitebark pine regeneration and growth, in the absence of sufficient seed source for natural re-generation maintaining the viability and function of whitebark pine would not be achieved through burning. Please find Keane and Arno attached. Planting of rust-resistant seedlings would likely not be sufficient to replace whitebark pine lost to fire activities. What surveys have been conducted to determine presence and abundance of whitebark pine re-generation?

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

Hundreds of acres of clearcutting and burning threaten individual whitebark pine trees in the project area,

including miles and miles of new roads, and including clearings around individual whitebark pines. The Forest Service fails to disclose the level of “take” and the incredibly high failure rate of these practices as a technique for natural restoration, regeneration and recovery of whitebark pine under these conditions.

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

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

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

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

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

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

On December 2, 2020, the U.S. Fish and Wildlife Service issued a rule proposing to list whitebark pine (Pinus albicaulis) under the Endangered Species Act. The Basin Creek - Butte Watershed Project area includes whitebark pine. The whitebark pine present in the project area represents a major source within the larger geographic area.

The Project proposes tree cutting and burning across thousands of acres where whitebark pine may be present. Regardless of whether individual activities are intended to im-pact whitebark pine, whitebark pine may be affected by damage from equipment and equipment trails, cutting, soil compaction and disturbance, mortality from prescribed burning, scorching from jackpot burning, trampling of seedlings and saplings, and removal of necessary microclimates and nursery trees needed for sapling survival. Additionally, thousands of acres of whitebark pine habitat manipulation are proposed for the Project, including intentionally cutting and burning Whitebark pine trees. No discussion on the success rate of natural regeneration under these conditions is provided. No discussion of the success rate of planting seedlings in clearcuts is provided. There have been no surveys for whitebark pine in violation of the ESA, NEPA, NFMA, and the APA.

The Forest Service admits that whitebark pine is known to be present in the area and that the Project "may impact individuals. . . ." The Forest Service further admits: "some ad- verse impacts are possible." The Forest Service further admits that "implementation of the project may cause incidental loss of whitebark pine seedlings and saplings . . . ." Crucially, the Forest Service does not disclose or address the re- sults of its only long-term study on the effects of tree cutting and burning on whitebark pine. This study, named "Restoring Whitebark Pine Ecosystems," included prescribed fire, thinning, selection cuttings, and fuel enhancement cuttings on multiple different sites. The results were that "[a]s with all the other

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

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

This is a violation of NEPA, NFMA, the APA and the ESA. The project will harm habitat for grizzlies, lynx, wolverine and big game and other wildlife and the Eastside assessment.

The Basin Creek-Butte Watershed EA fails to analyze habitat effectiveness, and fails to demonstrate that the Forest Service is maintaining habitat effectiveness, in violation of NEPA and NFMA.

Forest Plan Forest-wide Standard C-1(2) mandates: "Utilize the general concepts presented in Agriculture Handbook No. 533, Wildlife Habitats in Managed Forests. . . . When more site specific management recommendations are available through the Forest Service or [Montana Department of Fish, Wildlife, and Parks] those recommendations will be followed."The most recent site specific management recommendations available through the Forest Service and Montana Fish, Wildlife, and Parks for elk habitat management on this

Forest are set forth in "U.S. Forest Service and Montana Department of Fish Wildlife and Parks Collaborative Overview and Recommendations for Elk Habitat Management on the Custer, Gallatin, Helena, and Lewis and Clark National Forests," which is commonly referred to as the "Eastside Assessment." Thus, in order to comply with Forest-wide Standard C-1(2), the Eastside Assessment recommendations must be followed. The Eastside Assessment states: "At the project level an elk habitat effectiveness analysis should be conducted."

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

Please disclose the cumulative impacts on the Forest-wide level of the BDNF's policy decision to replace natural fire with logging and prescribed burning;

If the Forest Service did not conduct NEPA for the Fire Plan, please disclose the cumulative effects of Forest-wide implementation of the Fire Plan in the project EIS, or EA if you refuse to write an EIS, to avoid illegally tiering to a

non NEPA document. Specifically analyze the decision to prioritize mechanical, human-designed, somewhat arbitrary treatments as a replacement for naturally-occurring fire.

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

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

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

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

habitat, grizzly bear movement and recovery, lynx, lynx habitat, and lynx critical habitat.

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

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

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

Under NEPA, the alternatives analysis is "the heart" of the environmental analysis because it presents impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options. The alternatives analysis guarantees that agency decision makers have before them and take into proper account all possible approaches to a particular action

(including total abandonment of the action) which would alter the environmental impact and the cost-benefit balance.

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

The Forest Service's EIS for the revised Forest Plan never evaluated keeping some of the wildlife standards. The Forest Service never evaluated amending or modifying some or all of the ten wildlife standards (including the numeric requirements for retaining hiding cover and limiting open road densities). The Forest Service never evaluated an alternative that includes specific Management Area direction with standards in areas deemed critical for big game habitat and security. The Forest Service never evaluated and compared a wide range of new and varying standards with varying numeric limits for managing big game habitat and security on the forest based on the best available science.

The Forest Service did not analyze all of the cumulative impacts. For example, there is no analysis of the previous Basin Creek logging project

The Forest Service did not adequately analyze the

cumulative effects of the revised forest plan, recreation, fire

suppression, logging, illegal road use, on wildlife in

Please choose the No Action Alternative or withdraw the EA and write an EIS that fully complies with the law.

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

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

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

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

"Management issues

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

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

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

adversely af- fect biological diversity (Laughlin and Grace 2006).”

Please find (Laughlin and Grace 2006) attached.

Dr. Baker estimates the high severity fire rotation to be 135 - 280 years for lodgepole pine forests. (See page 162.). Baker writes on page 457-458 of Fire Ecology in Rocky Mountain Landscapes:
“Fire rotation has been estimated as about 275 years in the Rockies as a whole since 1980 and about 247 years in the northern Rockies over the last century, and both figures are near the middle between the low (140 years) and high (328 years) estimates for fire rotation for the Rockies under the HRV (chap. 10). These estimates suggest the since EuroAmerican settlement, fire control and other activities may have reduced fire somewhat in particular places, but a general syndrome of fire exclusion is lacking. Fire exclusion also does not accurately characterize the effects of land users on fire or match the pattern of change in area burned at the state level over the last century (fig 10.9). In contrast, fluctuation in drought linked to atmospheric conditions appear to match many state-level patterns in burned area over the last century. Land uses that also match fluctuations include logging, livestock grazing, roads and

development, which have generally increased flammability and ig- nition at a time when the climate is warming and more fire is com- ing."

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

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

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

zone.”

Schoennagel et al (2004) states: “No evidence suggests that spruce– fir or lodgepole pine forests have experienced substantial shifts in stand structure over recent decades as a result of fire suppression. Overall, variation in cli-mate rather than in fuels appears to exert the largest influence on the size, timing, and se-verity of fires in sub- alpine forests []. We conclude that large, infrequent stand replacing fires are ‘business as usual’ in this forest type, not an artifact of fire suppression.”.

Schoennagel et al (2004) states: “Contrary to popular opinion, previous fire suppression, which was consistently effective from about 1950 through 1972, had only a minimal effect on the large fire event in 1988. Reconstruction of historical fires indicates that similar large, high-severity fires also occurred in the early 1700s. Given the historical range of variability of fire regimes in

high-elevation subalpine forests, fire behavior in Yellowstone during 1988, although severe, was neither unusual nor surprising."

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

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

Schoennagel et al (2004) states: "The Yellow-stone fires in 1988 revealed that variation in fuel conditions, as measured by stand age and density, had only minimal influence on fire behavior. Therefore, we expect fuel- reduction treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size, given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not re-store subalpine forests, because they were dense historically and have not changed significantly in response to fire suppression. Thus, fuel- reduction ef- forts in most

Rocky Mountain subalpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure out-side the his- toric range of variability."

Please find Schoennagel et al (2004) attached.

The project does not meet the purpose and need of the project. Please see the attached paper by Baker et al. 2023. This landmark study found a pattern of "Falsification of the Scientific Record" in government-funded wildfire studies.

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

However, the new study comprehensively documents that a vast body of scientific evidence in peer-reviewed studies that have directly refuted and discredited this narrative were either misrepresented or omitted by agency

publications. The corrected scientific record, based on all of the evidence, shows that historical forests were highly variable in tree density, and included "open" forests as well as many dense forests. Further, historical wildfire severity was mixed and naturally included a substantial component of high-severity fire, which creates essential snag forest habitat for diverse native wildlife species, rivaling old-growth forests.

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

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

"The forest management policies being driven by this falsified scientific narrative are often making wildfires spread faster and more intensely toward communities, rather than helping communities become fire-safe," said Dr. Chad Hanson, research ecologist with the John Muir

Project in the same press release. “We need thinning of small trees adjacent to homes, not backcountry management.”

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

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

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

The abstract of the paper states:

Fire suppression policies and “active management” in response to wildfires are being carried out by land managers globally, including millions of hectares of mixed conifer and dry ponderosa pine (Pinus ponderosa) forests of

the western USA that periodically burn in mixed severity fires. Federal managers pour billions of dollars into command-and-control fire suppression and the MegaFire (landscape scale) Active Management Approach (MFAMA) in an attempt to contain wildfires increasingly influenced by top down climate forcings. Wildfire suppression activities aimed at stopping or slowing fires include expansive dozerlines, chemical retardants and igniters, backburns, and cutting trees (live and dead), including within roadless and wilderness areas. MFAMA involves logging of large, fire-resistant live trees and snags; mastication of beneficial shrubs; degradation of wildlife habitat, including endangered species habitat; aquatic impacts from an expansive road system; and logging-related carbon emissions. Such impacts are routinely dismissed with minimal environmental review and defiance of the precautionary principle in environmental planning. Placing restrictive bounds on these activities, deemed increasingly ineffective in a change climate, is urgently needed to overcome their contributions to the global biodiversity and climate crises. We urge land managers and decision makers to address the root cause of recent fire increases by reducing greenhouse gas emissions across all sectors, reforming industrial forestry and fire suppression practices, protecting carbon stores in large trees and recently burned forests, working with wildfire for ecosystem benefits using minimum suppression tactics when fire is not threatening towns, and surgical application of thinning and prescribed fire nearest homes.

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

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

The project is in violation NEPA, NFMA, the APA, and the Roadless Rule.

Page 3 of the roadless report states:

The Beaverhead-Deerlodge Forest Supervisor has determined that the cutting of generally small diameter timber is needed to maintain or restore the characteristics of ecosystem composition and structure to reduce the risk of uncharacteristic wildfire. The project's purpose and need is to protect the Basin Creek Municipal Watershed by restoring and improving the characteristics of ecosystem composition and structure to help reduce the risk of uncharacteristic wildfire effects. Moving the forested conditions of the project area toward the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period would also improve one of the roadless characteristics as defined in §294.11(2), sources of public drinking water. The cutting, sale, or removal of timber in the Basin Creek IRA is expected to be infrequent because once historic vegetation structure is restored and improved, there is no anticipated need to take similar actions for many decades and the last time active forest management occurred in the area was approximately 40 years ago.

Douglas-fir thinning is proposed on 510 acres and lodgepole thinning is proposed on 371 acres of inventoried roadless area in the Basin Creek- Butte Watershed Project. Additionally, 336 acres of a shaded fuel break is proposed. All activities proposed in the inventoried roadless area aim to maintain or restore

characteristics of ecosystem composition and structure and to reduce the risk of uncharacteristic wildfire effects and to protect the municipal watershed.

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

In the late 1990s, the Forest Service reached several findings regarding roads on National Forest lands: (1) use of the National Forests had "shifted substantially toward recreation," (2) there were insufficient funds to maintain existing roads, and (3) there was an "accumulation of new scientific information" suggesting that "ecological impacts from existing roads are more extensive than previously thought." Alaska v. USDA, 273 F.Supp.3d 102, 108 (D.D.C. 2017)(quoting 63 Fed. Reg. 4350, 4350 (Jan. 28, 1998)). Subsequently, on January 12, 2001, the Forest Service published the final Roadless Rule. 66 Fed.

Reg. 3244 (Jan. 12, 2001). The Roadless Rule prohibits road construction and tree cutting in designated "Inventoried Roadless Areas" subject to limited exceptions. See Alaska, 273 F.Supp.3d at 108.

For over 15 years, the Roadless Rule was the subject of litigation. See, e.g., Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1126 (9th Cir. 2002); California ex rel. Lockyer v. USDA., 575 F.3d 999, 1007 (9th Cir. 2009); Wyoming v. USDA, 661 F.3d 1209, 1272 (10th Cir.

2011); Organized Vill. of Kake v. USDA, 795 F.3d 956, 962 (9th Cir. 2015) (en banc); Alaska, 273 F.Supp.3d at 108–12. The Roadless Rule withstood these legal challenges. In relevant part, regarding the prohibition on tree cutting, the Roadless Rule mandates:

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

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

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

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

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

(ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the

range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;

(2) The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart;

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

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

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

66 Fed. Reg. 3258.

The EA does not demonstrate that the project complies with the roadless rule. The project is converting a motorized trail to a logging road and making ferment fuel breaks in the roadless area in violation of the roadless rule. It appears that the Forest Service is building more roads in roadless areas to get the logs out.

The Forest Service did not show the area is outside the range on range of variability for wildfires. The EA also did not define what a catastrophic fire is.

WUI

The EA states the project area is in the Wildland Urban Interface but it does not appear to follow the Healthy Forest Act legal definition of the Wildland Urban Interface which is 1 1/2 miles from a community.

Emergency Situation Determination (ESD)

Page 61-62 of the EA states:

As the responsible official, I have determined that an emergency situation exists in the Basin Creek-Butte Watershed Project with respect to all of the proposed project activities, the proposed action shall not be subject to the pre-decisional objection process and implementation may proceed as follows:

(1) Immediately after notification (see 36 CFR 220.7(d)) when the decision is documented in a Decision Notice (DN).

In order to facilitate implementation of this project, I have applied to the Forest Service Chief for an Emergency Situation Determination (ESD) pursuant to 36 CFR 218.21(d) (78 Federal Register

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59, March 27, 2013; p. 18481-18504). An emergency situation is a situation on National Forest System lands for which immediate implementation of a decision is necessary to achieve one or more of the following: relief from hazards threatening human health and safety; mitigation of threats to natural resources on National Forest System or adjacent lands; avoiding a loss of commodity value sufficient to jeopardize the agency's ability to accomplish project objectives directly related to resource protection or restoration (36 CFR 218.21(b)). The determination that an emergency situation exists is not subject to administrative review (36 CFR 218.21(c)). With an ESD granted, the project is not subject to the pre-decisional objection process (36 CFR 218.21(d)).

Implementation in this decision is expected to begin immediately.

The EA does not adequately demonstrate that the project complies with the regulations allowing for an Emergency Situation Determination and this in violation of NEPA, NFMA, the APA, and the ESA.

LYNX

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

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

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

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

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

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

THE AGENCIES MUST REINITIATE

CONSULTATION ON THE NORTHERN ROCKIES

LYNX MANAGEMENT DIRECTION.

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

The Endangered Species Act requires the FS to insure that the GRLA project is not likely to result in the destruction or adverse modification of critical habitat. 16 U.S.C. §1536(a)(2). Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for lynx. 74 Fed. Reg. 8644. The Northern Rockies Lynx Management Direction (NRLMD) as applied in the project violates the ESA by failing to use the best available science to insure no adverse

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

S1, S2, S5, and S6. In particular, fuel treatment projects may occur in the WUI even though they will not meet standards Veg S1, S2, S5, or S6, provided they do not occur on more than 6% of lynx habitat on each Nation- al Forest. Allowing the agency to destroy or adversely modify any lynx critical habitat has the potential to appreciably reduce the conservation value of such habitat. The agency cannot simply set a cap at 6% forest-wide without looking at the individual characteristics of each LAU to determine whether the project has the potential to appreciably reduce the conservation value. The ESA requires the use of the best available science at the site-specific level. It does not allow the agencies to make a gross determination that al- lowing lynx critical habitat to be destroyed

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

The FS violated NEPA by applying the above-mentioned exception without analyz- ing the impacts to lynx in the individual LAUs. The Project violates the NFMA by failing to in- sure the viability of lynx. Ac- cording to the 1982 NFMA regulations, fish and wildlife must be managed to maintain viable populations of Canada lynx in the planning area. 36 C.F.R. 219.19. The FS has not shown that lynx will be well distributed in the planning area. The FS has not addressed how the project's adverse modification of denning and foraging habitat will impact distribution. This is important because the agency readily admits that the LAUs already contain a "relatively large percentage of unsuitable habitat."

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

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

The FS cannot insure species viability here without addressing the impacts to the already low amount of suitable habitat. By cutting in denning and foraging habitat, the agency will not be "maintaining or enhancing the quality of the habitat."

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

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

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

The Lynx BA team recommended amending or revising Forest Plans to incorporate conservation measures that

would reduce or eliminate the identified adverse effects on lynx. The Programmatic Lynx BA's determination means that Forest Plan implementation is a "taking" of lynx, and makes Section 7 formal consultation on the BDNF Forest Plan mandatory, before actions such as the proposed project are approved.

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

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

• Generally direct an aggressive fire suppression strategy within developmental land allocations. ...this strategy may be contributing to a risk of adversely affecting the lynx by limiting the availability of foraging habitat within these areas.

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

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

• Allow both mechanized and non-mechanized recreation that may contribute to a risk of adverse effects to lynx. The potential effects occur by allowing compacted snow trails

and plowed roads which may facilitate the movements of lynx competitors and predators.

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

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

• Fail to provide direction for monitoring of lynx, snowshoe hares, and their habitats. While failure to monitor does not

directly result in adverse effects, it makes the detection and assessment of adverse effects from other management activities difficult or impossible to attain.

• Forest management has resulted in a reduction of the area in which natural ecological processes were historically allowed to operate, thereby increasing the area potentially affected by known risk factors to lynx. The Plans have continued this trend. The Plans have also continued the process of fragmenting habitat and

reducing its quality and quantity. Consequently, plans may risk adversely affect- ing lynx by potentially contributing to a reduction in the geographic range of the species.

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

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

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

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

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

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

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

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

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

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

So Holbrook et al., 2018 and Holbrook 2019 (attached) fully contradict Forest Plan assumptions that clearcuts/ regeneration can be considered useful lynx habitat as early as 20 years post-logging.

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

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

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

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

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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.

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

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

The Forest Service and the FWS have not yet analyzed effects on lynx across the entire Forest as required by the 2018 remand order; instead, their consultation addresses mapped lynx habitat. However, mapped lynx habitat is less than half of the Forest, and there are still another 1.9

million acres of Forest that are not mapped lynx habitat but nonetheless satisfy the "may be present" threshold. Thus, the agencies have not yet provided Plaintiffs with all of the relief they seek.

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

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

Accordingly, this Project should not move forward until the agencies comply with their legal obligations under the ESA, NEPA, and NFMA regarding this de facto Forest Plan amendment that removed lynx protections on almost one-third of the Forest during the remand in this case. This

Court may address this issue in its equitable discretion. However, if it declines to do so, Plaintiffs will file a new action and request injunctive relief in that action.

NEPA requires an agency to prepare an EIS for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. §4332(2)(C). Major federal actions include "new or revised agency . . . plans, policies, or procedures" including "official documents prepared or approved by Federal agencies which prescribe alternative uses of Federal resources, upon which future agency actions will be based." 40 C.F.R. §1508.1 (q)(2), (3)(ii).

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

Furthermore, ESA consultation is required for "any agency action" that "may affect" a listed species in an area where a listed species "may be present."
16 U.S.C. §1536(c). The ESA defines agency action as "any action authorized, funded, or carried out by [a federal] agency." 16 U.S.C. §1536(a)(2). In Karuk Tribe of California v USFS, the en banc Ninth Circuit held that "[t]here is 'little doubt' that Congress intended agency action to have a broad definition in the ESA . . . ." 681 F.3d 1006,1020-21 (9th Cir.2012)(citations omitted). Thus, the "'agency action' inquiry is two-fold. First, we ask whether a federal agency affirmatively authorized, funded, or

carried out the underlying activity. Second, we determine whether the agency had some discretion to influence or change the activity for the benefit of a protected species." Id. The remapping of "lynx habitat" is an agency action that requires ESA consultation. Native Ecosystems Council, 866 F.Supp.2d at 1232-33.

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

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

Furthermore, regardless of whether a forest plan amendment is "significant" under NFMA, any substantive protections in the 2012 NFMA planning regulations that are "directly relevant" to the forest plan amendment must be applied. 36 C.F.R. §219.13(b)(5); see Sierra Club, Inc. v.

USFS, 897 F.3d 582, 601 (4th Cir. 2018)(remanding for application of substantive protections of the 2012 planning regulations to a non-significant forest plan amendment).

Finally, a de facto forest plan amendment cannot be lawfully categorized and dismissed as a mere "administrative change" unless it involves only "corrections of clerical errors to any part of the plan, conformance of the plan to new statutory or regulatory requirements, or changes to other content in the plan (§ 219.7(f))." 36 C.F.R. §219.13(c). "Changes to other content in the plan" is a term of art that includes only watershed identification, the plan's roles and contributions in the broader landscape, the monitoring program, proposed and possible actions, and potential management approaches or strategies and partnership opportunities or coordination activities." 36 C.F.R. §219.7(f).

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

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

The result of the remapping was that the agencies removed approximately 1.1 million acres from the "lynx habitat" designation, and thereby removed the protections of the

Lynx Amendment standards from those 1.1 million acres of Forest:

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

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

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

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

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

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

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

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

Similarly in the BDNF,"[w]ith the adoption of the [2020] map, the [1.1 million] acres of previously restricted land

was opened for uses that were not available without the adoption of the map.". " [T]he map was never subjected to independent NEPA review, which would have required an analysis of the potential [e]ffects . . . on the lynx, its habitat, and the habitat of the snowshoe hare. Such analysis is absent in this case. The absence of such analysis violates NEPA's procedural requirements . . . ."

And, as the District of Oregon similarly held:

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

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

The remapping of "lynx habitat" requires ESA consultation.

In addition to requiring NEPA analysis, the remapping of lynx habitat also requires ESA consultation. The remapping of lynx habitat on the Forest is an agency action under the ESA because it was "authorized, funded, or carried out by

[a federal] agency." 16 U.S.C. §1536(a)(2). Additionally, "the agency had some discretion to influence or change the activity for the benefit of a protected species." Karuk Tribe, 681 F.3d at 1021.

In Native Ecosystems, the District of Idaho found that ESA consultation was required to address the impacts on lynx from the remapping decision. 866 F.Supp.2d at 1231-33. The court held: "Defendants argue that, because a jeopardy determination was made for the standards contained in the Lynx [Amendment], and those standards were used in revising the [Lynx Analysis Unit] map in 2005, the agencies satisfied their obligations under the ESA. The Court does not agree." Id. at 1232. The court found that the Lynx Amendment "biological opinion from 2007 does not assess the validity of the 2005 map" and that the agencies should have evaluated whether "the elimination of 390,900 acres of land within the boundaries of [Lynx Analysis Unit]s in the 2005 map would adversely affect the lynx or its habitat." Id.

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

The remapping of "lynx habitat" requires a Forest Plan amendment.

Finally, the remapping of "lynx habitat" is a Forest Plan amendment that requires analysis under NFMA. Removing Forest Plan Lynx Amendment protections from

approximately 1.1 million acres, reducing the number of Lynx Analysis Units on the Forest from 509 to 78, and increasing the size of individual Lynx Analysis Units so that more acres can be logged before the Lynx Amendment percentage limits for logging in each unit are reached, are changes that "add, modify, or remove one or more [forest] plan components, or [] change how or where one or more plan components apply to all or part of the [forest] plan area (including management areas or geographic areas)." 36 C.F.R. §219.13(a).

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

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

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

concomitant public involvement also are concerns in this case. . . . Whether based on a theory of a de facto amendment or a failure to act to amend, therefore, the Court concludes an order compelling the public involvement required by NFMA is warranted as to these timber sales.
Oregon Nat. Res. Council Fund, 252 F.Supp.2d at 1101. The court further found that the Forest Service's action violated the substantive provisions of the NFMA planning regulations."

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

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

run contrary to both the goals and language of [Federal Land Policy and Management Act.]" Id.

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

For all of these reasons, the agencies must complete NEPA, ESA, and NFMA analysis for the 2020 remapping of "lynx habitat" on the Forest. Until those analyses are completed

in a lawful manner, the Basin Creek - Butte Watershed Project can not go forward because the Project analysis is unlawfully premised upon the acceptance and implementation of the new map of lynx habitat “like a house of cards built on an unsound foundation.” Native Ecosystems, 866 F.

Please 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-Deerlodge National Forest Forest Plan is arbitrary and capricious, violates NEPA’s hard look requirement and scientific integrity mandate and fails to apply the best available science necessary to conserve lynx.

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

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

For one, Kosterman, 2014 found that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 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.

Grizzlies

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

It is fair to assume that there are many more violations that regularly occur and are not witnessed and reported. It is also fair to assume that you have made no effort to request this available information from your own law enforcement officers, much less incorporate it into your analysis. Considering your own admissions that road density is the primary factor that degrades elk and grizzly habitat, this is a material and significant omission from your analysis– all of your ORD and HE calculations are wrong without this information.

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

Additionally, your emphasis on elk populations across entire hunting districts is disingenuous and has little relevance to whether you are meeting your Forest Plan obligations to maintain sufficient elk habitat onNational Forest lands. As you note, the Forest Plan estimated that 70% of elk were taken on National Forest lands in 1986. What percentage of elk are currently taken on National Forest lands? Have you asked Montana FWP for this

information? Any honest biologist would admit that high elk population numbers do not indicate that you are appropriately managing National Forest elk habitat; to the contrary, high elk numbers indicate that you are so poorly managing elk habitat on National Forest lands that elk are being displaced to private lands where hunting is limited or prohibited. Your own

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

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

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

Displacement may have long term effects: “Females who have learned to avoid roads may also teach their cubs to avoid roads. In this way, learned avoidance behavior can persist for several generations of bears before they again

utilize habitat associated with closed roads.” Both open and closed roads displace grizzly bears: grizzlies avoided roaded areas even where existing roads were officially closed to public use.

Females with cubs remained primarily in high, rocky, marginal habitat far from roads. Avoidance behavior by bears of illegal vehicular traffic, foot traffic, and/or authorized use behind road closures may account for the lack of use of areas near roads by female grizzly bears in this area. This research demonstrated that a significant portion of the habitat in the study area apparently remained unused by female grizzlies for several years. Since adult females are the most important segment of the population, this lack of use of both open-roaded and closed-roaded areas is significant to the population.

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

of use of the resources along roads, but in the survival of young when their mothers are forced to live in less favorable areas away from roads.

Please clarify what percent of roads that projects call to be closed will actually be closed. What percentage of roads that are called for to be closed will not be closed because you still waiting for funds to close or obliterate those roads? This distinction matters because you cannot honestly claim that you are meeting road density standards promised by the Travel Plans' EIS and Decision if you have not yet completed the road closures/ obliterations promised by the Travel Plans. Furthermore, as noted above, you have a major problem with recurring, chronic violations of the road closures created by the Travel Plan, which means that your assumptions in the Travel Plan that all closures would be effective has proven false. For this reason, you cannot tier to the analysis in the Travel Plan because it is invalid. You must either complete new NEPA analysis for the Travel Plan on this issue or provide that new analysis in the NEPA analysis for this Project. Either way, you must update your open road density calculations to include all roads receiving illegal use.

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

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

Motorized access has been shown to influence grizzly bears at the individual and population levels. People in motorized vehicles affect grizzly bear habitat use, home-range selection, movements, population fragmentation, and demography including survival and reproduction, which ultimately affects bear density, population trends, and conservation status. Integrating habitat quality into road management improves the efficiency and effectiveness in reaching management goals, such as managing for few or no roads within 500 m of habitats containing late summer and autumn hyperphagia food resources, such as major berry fields, salmon streams where bears can effectively catch fish, and high-quality white- bark pine stands. Further, in populations with moderate habitat quality and close to human settlements, road densities near 0.6 km/km^2 with >60% secure habitat (i.e., >500 m from an open road) are meaningful thresholds that, if not exceeded, may allow female grizzly bears to have sustainable survival rates. In other areas, population- specific thresholds may be appropriate, such as where conservation is a major concern, because poor habitat quality limits reproductive rates and very little human- caused mortality can be sustained. In areas that are further from human population centers and have large patches of high-quality habitat, the bear population

could tolerate higher overall road densities provided large, high-quality patches have no roads.

Our consensus of prioritizing the use of motorized access management across occupied grizzly bear terrain was that "Threatened" populations, or populations of conservation concern (documented or suspected population declines, excessive reported mortality, and areas with high human footprints), were a first priority. Next, we conclude that habitat quality is an integral part of understanding grizzly bear responses to roads and, if integrated, will increase the efficiency and effectiveness of road management programs. Therefore, managers should allow for habitat security with zero or low road densities in high-quality foraging habitats where major summer–autumn hyperphagia energy-rich food sources are used heavily. This could entail maintaining low road densities in currently safe habitats (where habitat quality is high and mortality risk is low) and applying motorized access controls in areas of sink habitats (where habitat quality and road densities are high).

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

The Forest Service's and FWS's failure to consider and evaluate how the revised forest plan and removal of all wildlife standards may affect grizzly bears in the lower

48 states or grizzly bear connectivity or movement and grizzly bear recovery in the lower 48 States is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with ESA.

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

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

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

does not evaluate and analyze how the removal of wildlife standards may affect lynx critical habitat.

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

The Forest Service's and FWS's failure to consider and evaluate how the removal of all ten wildlife standards may affect grizzly bears, wolverines, monarch butterflies, lynx, and lynx critical habitat is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with ESA. 5 U.S.C. § 706 (2)(A).

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

Cumulative effects are the impacts on the environment that result from the incremental

impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

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

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

species and habitat, grizzly bears, grizzly bear movement and recovery, lynx, lynx habitat, and lynx critical habitat.

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

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

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

The Forest Service's EIS for the revised forest plan fails to consider and analyze a reasonable range of alternatives to removing all wildlife

standards from the BDNF Revised Forest Plan. The Forest Service only took an all (remove all wildlife standards) or nothing (keep all wildlife standards) approach.

The Forest Service's EIS for the revised Forest Plan never evaluated keeping some of the wildlife standards. The Forest Service never evaluated amending or modifying some or all of the ten wildlife standards (including the numeric requirements for retaining hiding cover and limiting open road densities). The Forest Service never evaluated an alternative that includes specific Management Area direction with standards in areas deemed critical for big game habitat and security. The Forest Service never evaluated and compared a wide range of new and varying standards with varying numeric limits for managing big game habitat and security on the forest based on the best available science.

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

The Forest Service's and FWS's reliance on the 1998 baselinewhen consulting on the revised

forest plan is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with ESA. 5 U.S.C. § 706 (2)(A).

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

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

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

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

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

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

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

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

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

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

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

The agency is violating the NEPA by promoting fuel reduction projects as protection of the public from fire, when this is actually a very unlikely event; the probability of a given fuel break to actually have a fire in it before the fuels reduction benefits are lost with conifer regeneration are extremely remote; forest drying and increased wind speeds in thinned forests may increase, not reduce, the risk of fire. The agency is violating the NEPA by providing false reasons for logging to the public by claiming that insects and disease in forest stands are detrimental to the forest by reducing stand vigor (health) and increasing fire risk. There is no current science that demonstrates that insects and disease are bad for wildlife, including dwarf

mistletoe, or that these increase the risk of fire once red needles have fallen. The agency is violating the NEPA by claiming that logging is needed to create a diversity of stand structures and age classes; this is just agency rhetoric to conceal the real of logging to the public.

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

The agency will violate the Forest Plan by logging riparian areas; almost all wildlife species will be harmed by this treatment. The agency will violate the NFMA by failing to ensure that old growth forests are well-distributed across

the landscape. The Revised Forest Plan has not standards for old growth lodgepole forests in violation of NEPA and NFMA. The project is in violation of NEPA for not informing the public of this. The Revised Forest and the project are in violation of NFMA and the ESA for not insuring viable populations of natives species including grizzly bears, lynx, and wolverines.

Thank you for your time and consideration of our concerns.

Sincerely yours,
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