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Comments: 1. Attachments and Appendices

This Objection includes 3 appendices, Appendix A, Appendix B, and Appendix C, which include relevant portions of literature and reports cited

in the Objection. This Objection also includes 3 Attachments. Attachment #1 addresses the failure of the FWS Biological Opinion (BiOp) for the effects of the BDNF RFP on the threatened lynx, dated 4/5/21. Attachment #2 includes supporting documentation for Attachment #1. Attachment #3 summarizes the various proposals by the BDNF to create openings over 40 acres for the Pintlar Face Project.

2. Connection between Past Comments and the Proposed Action:

On December 11, 2017, NEC and AWR submitted comments on the environmental assessment that was released for the Pintlar Face Project.

Y2U was not involved with this project at that time, but has no opportunity to provide public comments during the interim 3 years. So they are now contributing to the public involvement process for this objection.

The comments NEC and AWR provided in December of 2017 covered a wide range of topics, including snags (pages 2-3), old growth (pages 3-4), aspen (pages 4-5), wolverine (pages 5-6), lynx (page 6), grizzly bear (pages 7-8), the goshawk (pages 8-9), great gray owl (page 9), flammulated owl (pages 9-10), black-backed woodpecker (pages 10-11), sage grouse and wildlife associated with sagebrush and ecotones (pages 11- 15), pygmy rabbit (pages 15), cheatgrass (page 15), elk (page 15-17), winter range including for moose (page 17-18), and the creation of large openings (page 18). We would like to incorporate by reference all of these comments into this objection, in order to avoid repetition.

Since these draft comments were provided, there has been new information available in regards to the Pintlar Face project, and this resulted in addition of several sections to our objection. One includes the increased awareness of the plight of western forest birds, including many neotropical migrants. Since the mid-1970s there has been a loss of over 3 billion North American landbirds, including a billion western forest birds (Rosenberg et al. 2019). Climate change is also creating severe weather events that resulted in massive losses of these western forest birds (D' Ammassa 2020). The

BDNF RFP lacks any direction for these western forest birds, including old growth, snag forests, and ecotones. The RFP needs to be amended to address these severe deficiencies to ensure that the Migratory Bird Treaty Act (MBTA) and associated Memorandum of Understanding (MOU) with the FWS is being adhered to by the agency. As a part of adhering to the MBTA and associated MOU, the Forest Service needs to obtain a "take" statement from the FWS to allow the massive killing of birds that will result from implementation of the Pintlar Face Project.

Additional new information has also become available on the BDNF's intention to expand fuels reduction treatments on the BDNF to include 120,000 to 150,000 acres by 2036, or the remaining planning period for the RFP. This requires a Forest Plan amendment as well. It is unknown what portion of this expanded fuels treatments will occur in the Pintlar Face Project.

We have also added a new issue, which occurred since the 2017 EA was released for public comment. This is the failure of the BDNF to provide a public legal notice of a 60 day comment period for the proposed 22 large openings over 40 acres that are proposed for the Pintlar Face Project.

Although some publics (Anaconda Sportsman Organization and MFWP) were allowed to provide comments on the design of these opening, there was no official comment period announced, or provided to NEC and AWR.

There is also another new issue that developed since the comment period allowed for the Pintlar Face Project. The BDNF has been identified as occupied lynx habitat, and as a result, the Forest Service provided a Biological Assessment to the FWS (1/21) and received a Biological Opinion from the FWS on 4/5/21. Management of the BDNF by the Northern Rockies Lynx Management Direction, which is directed by the RFP and the FWS, ensures extinction, not conservation of the lynx. Thus both the BA developed by the Forest Service, and the BiOp and associated take statement provided by the FWS, are invalid. The actual taking of lynx will be far greater than is identified by the BiOp, which is not only a violation of the ESA but the NEPA as well.

3. Proposed Remedy

Due to the failure of the RFP to ensure viability of almost all forest wildlife on the BDNF, including the lynx, grizzly bear, wolverine, western forest birds associated with old growth, snag forests and ecotones, due to the failure of the RFP to protect wildlife that require low open road densities such as wolverine, grizzly bears and elk, due to the failure of the RFP to ensure conservation of the lynx, and due to the failure of the RFP to maintain elk on public lands during both the summer and the fall hunting season, this RFP needs to be amended to address these severe flaws before any further vegetation management activities occur on the BDNF. This cessation of activity needs to include the Pintlar Face Project.

As well, the BiOp for the RFP on lynx is invalid. It allows continued application of the Northern Rockies Lynx Management Direction, which fails to promote persistence and conservation of the lynx. This management direction needs to be amended to incorporate the current best science on lynx management before any further vegetation management activities occur on the BDNF, so that the Forest Service and the FWS will be complying with the Endangered Species Act (ESA).

The RFP also fails to acknowledge that forest management has a cumulative effect on global warming. Forest management that addresses the impacts of climate change need to be added to Forest Plan direction; the current RFP direction is directly counter to addressing climate change, as massive acreages of vegetation treatments are planned (74,000 acres of logging lodgepole pine, 20,000 acres of logging Douglas-fir, 67,000 acres of treating aspen stands, 74,000 acres of treating ecotones) and planned additional treatments of 120,000-150,000 fuels reduction projects. The Pintlar Face project is a good example of the massive vegetation treatment activities the BDNF outlined (treatment of 11,224 acres within the 73,624 acre project area) without any connection ever made as to how this will exacerbate climate change.

The current RFP as implemented has also failed to complete almost any monitoring of management impacts on wildlife. There has not been a Forest Plan monitoring report since 2009. The impacts of the massive vegetation treatment directed by the RFP remain unknown, and should not be continued until this violation is corrected.

4. Violations of Laws and Policies.

A. The 4/5/21 FWS Biological Opinion for the effects of the Northern Rockies Lynx Management Direction (NRLMD) is invalid.

See Attachment#1 and #2 in this Objection. The NRLMD does not use the current best science for management of the threatened lynx. Assessment of vegetation treatment effects on lynx cannot be accurately measured based on the NRLMD, as was done in the FS BA for the effects of the RFP on lynx, and also was the basis for the FWS BiOp and incidental take statement .

Therefore, use of the NRLMD to measure impacts of vegetation treatments and use as a surrogate for incidental take of lynx by the FWS are violations of the ESA, the NEPA and the NFMA.

B. The analysis of project impacts on the lynx for the Pintlar Face Project is invalid and thus a violation of the ESA, the NEPA and the NFMA.

The Pintlar Face analysis of lynx is provided in Appendix D of the EA, pages 6-28. This analysis is invalid because it uses the NRLMD as a measure of project impacts on lynx and on the probability of lynx persistence in the project area. As noted in Attachments #1 and #2 of this objection, the NRLMD cannot measure effects of management actions in lynx habitats because it does not use the current best science to measure impacts or to define lynx habitat.

The project analysis on lynx does not use the current best science to measure the impacts of clearcuts. There will be 3,459 acres of clearcuts in the project, as noted in the draft DN at page 6. The lynx analysis does not count 826 acres of these clearcuts, as the wildlife report appendix D at page 18 states there will be only 2633 acres of new clearcuts created in the project. So the analysis of project impacts on new openings as provided in the wildlife report in Table 3 underreports the increase in clearcuts, titled "early stand initiation" (ESI). The current best science defines these openings as 5% of lynx home ranges, with a median home range of roughly 13,500 acres. This level is currently exceeded in LAUs BH-07 (9%) and BH-08 (10%). The reported level of ESI after project implementation in Table 4 is 6% BH-04,

15% in BH-07, and 12% in BH-08. These will be adverse impacts on lynx, which are not identified in the wildlife report. These excessive levels of ESI to be increased by the Pintlar Face project were claimed to be consistent with the NRLMD, which allows 30% clearcuts. Based on the NRLMD, the agency provided a false conclusion that the project is not likely to adversely impact lynx (Appendix D wildlife report at 28).

The agency did not evaluate project impacts on the percentage of mature forest habitat in the affected LAUs. This level of mature forest habitat, at least 49%, has been identified as a key feature of productive female lynx home ranges (Attachment #1 and 2). It is not possible to measure current or projected qualities of lynx habitat in the Pintlar Face landscape without measuring current and projected levels of mature forest habitat. The NRLMD does not measure mature forest habitat. Yet the agency determined that the project will not adversely impact lynx.

It is possible that the Pintlar Face project will reduce mature forest habitat below the 49% level characteristic of productive female lynx home ranges. There will be 3,459 acres of clearcutting (draft DN at page 6). There will be 1,532 acres of precommercial thinning (Wildlife Report Appendix D at 26). There will be 966 acres of treatments in snowshoe hare aspen habitat (Id. at Table 7 page 25). This totals roughly 6,000 acres of a loss of relatively dense mature forest habitat, or stands over 40-50 years in age (Attachments #1 and #2). The BDNF has the potential to measure mature forest habitat based on the current best science with the more detailed mapping that has been done (Habitat mapping documentation for Canada lynx (*Lynx canadensis*) on the Beaverhead-Deerlodge National Forest-2020 update, included in the 1/21 BA of the effects of the RFP on lynx). Although possible, an analysis of the Pintlar Face project on mature forest habitat for lynx was not done, demonstrating that project impacts on lynx that may be adverse were not addressed. The conclusion that the project will not adversely impact lynx is therefore invalid.

The agency recognizes that aspen habitats are important habitat for snowshoe hares and lynx. There is no category for aspen habitats in the NRLMD. The Pintlar Face project is projected to impact 966 acres of lynx habitat in aspen. This impact is being used as an allowed exemption as per the NRLMD, although aspen is not recognized as a lynx habitat in this NRLMD. There is no analysis of how the loss of aspen habitats in lynx habitat will affect their persistence in the NRLMD.

The agency identifies stem exclusion and "other" habitat for lynx as "unsuitable" (Wildlife Report Appendix D at 28. This is not supported by the current best science. The NRLMD fails to account for the loss of stem and other habitat from vegetation treatments because these are considered unimportant. Id. There is no current science that indicates that these habitats, which for the Pinar Face project, include 75%, 74%, 78%, 69%, and 74% of lynx habitat in LAUs BH-04-08, respectively (Table 3, Wildlife Report Appendix D at page 15-16). The NRLMD thus allows roughly 3/4ths of the habitat in LAUs of the Pintlar Face project to be logged without identifying any adverse impact on lynx.

The Pintlar Face project did not demonstrate that the Forest Plan standard ALL S1 will be met by the project. As noted, there will be roughly 6,000 acres of forest habitats opened/removed, which will impact movement of lynx due to avoidance of these 6,000 acres (Attachments #1 and #2). These treatments will include 3,459 acres of clearcuts in 27 units, 22 of which will be over 40 acres in size. The average opening size of these large openings will be 151.5 acres, with a range in size from 43-496 acres. There is no analysis in the Pintlar Face wildlife report (Appendix D) as to how these openings will impact habitat connectivity for lynx to meet NRLMD standard ALL S1. This standard requires that all of the total habitat within an LAU be included in this assessment, not just lynx habitat within an LAU. This means that all existing natural openings have to be included in a measure of habitat connectivity. As per maps of the LAUs for this Pintlar Face project, there are expansive areas of openings surrounding many of the treatment areas. The total current and projected level of habitat connectivity within LAUs would have to be assessed in order for the agency to demonstrate compliance with this standard. Compliance would be met if the level of connectivity is maintained based on the current best science. This would be 18% advanced regeneration forest, and 49% mature forest, for a connectivity level of 67%. This current best science is very similar to the 1989 levels of habitat connectivity previously identified for lynx (Attachment#1 and #2).

If the ALL S1 standard for connectivity is not being met, the agency would not be able to conclude that the project will not adversely impact lynx. So this conclusion is invalid.

C. The agency is violating the NFMA and NEPA by failing to notify the public about proposed large openings, by failing to provide a 60 day public comment period to the public for the proposed large openings, and by failing to evaluate the impacts of proposed large openings in wildlife or to identify mitigation measures that would avoid significant adverse impacts to wildlife; failure to evaluate impacts of openings on neotropical migratory birds is also a violation of the Migratory Bird Treaty Act (MBTA) and the associated Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service (FWS).

1. The agency did not provide a 60 day comment period to the public for the planned 3332 acres of 22 openings over 40 acres.

The BDNF did not provide public notification of a 60 day comment period for openings over 40 acres, as per FSM, Chapter 2470, for the final draft decision on the Pintlar Face Project, as per a legal notice published in a newspaper of record. Instead, the agency put an unpublished notice on their web page on February 12, 2021. No publication notice was included with this information. NEC and AWR had both provided prior comments on the Pintlar Face project, and neither were notified of the 60 day comment period. This comment period is to allow public comments, as is noted at #3 of Chapter 2470 of the FSM. Posting a notice only at the agency's web page means that there is a likely chance no publics involved in this project would actually see it. So NEC and AWR were not able to provide public comments specifically in regards to the proposed creation of 22 large openings on 3332 acres. The draft DN does not even mention the large planned openings, let alone include any summary of the public comments that were received as a result of the notice on the agency's web site. Apparently none were received, due to a lack of notification other than the agency's web page. Since NEC and AWR were not notified of the comment period, and did not provide comments, our feedback on these proposed large openings has not been obtained and considered in the agency's decision to create these openings, in violation of the NEPA and the NFMA.

As was noted in the draft DN, apparently the Forest Service did obtain concerns and take comments from some publics (Anaconda Sportsman's Club and MFWP) regarding openings T-18 and T-04 (draft DN at 3). So select

agencies and groups were allowed to provide input on openings, including field reviews, while other groups, as NEC and AWR, were not provided opportunities for coordination, which would have been a 60 day comment period. Limiting public review of openings for the Pintlar Face project is a violation of the NEPA.

As an example of the public comment period to be provided on large openings, on December 11, 2020, the Flathead National Forest published a letter that served to initiate a 60-day public notification on regeneration harvest openings that would exceed maximum opening size limits established by the Flathead National Forest Management Plan (USDA 2020). It was noted that public feedback provided on the proposal to exceed established regeneration harvest unit size would be considered by the responsible official and the Regional Forester. Feedback received in response to this solicitation, including names, addresses, email addresses, and phone numbers of those who provide feedback will be considered part of the public record, and will be available for public inspection under the Freedom of Information Act. Feedback may be sent to Shelli Mavor, project leader.

2. The Forest Service has not identified to the public why the large openings are being implemented, in violation of the NEPA and the NFMA.

There is no information provided in the agency's NEPA analysis for the Pintlar Face project as to why the large openings are being implemented. The limitation of openings to 40 acres was established in the NFMA in order to avoid past abuses in logging, and any rationales for returning to massive openings, which damage many resources including wildlife, needs to be justified to the public. The benefits of the proposed 3,459 acres of clearcuts, including 22 over 40 acres in size, were not identified to the public in any measurable terms. Making vague claims of improved resilience, etc, do not constitute valid information to the public. The measurable benefits that will result from the large openings need to be compared against the huge impacts to wildlife with the complete loss of 3,459 acres of habitat and massive fragmentation of remaining habitat. What are these benefits to the public?

How did the agency analysis determine the adverse impacts to wildlife are not simply balanced out by the adverse impacts, but that the measurable benefits far outweigh wildlife impacts. No such information was ever provided to the public, in violation of the NEPA.

Since the NFMA establishes that large opening are detrimental to resources, the Forest Service has a duty to demonstrate to the public that large openings are necessary for some resource management, and not to just get the cut out. In the case of the Pintlar Face project, the reason for large openings, including in occupied habitat for the threatened lynx and grizzly bear, and the sensitive wolverine, needs to be provided to the public. At present, this has not been done. It is unclear why some undefined benefit of large openings will offset impacts to wildlife. The agency needs to show how these tradeoffs were measured.

This information needs to be provided to the public, not only to demonstrate that there is an ecological reason for these openings, but because this is a severe impact of the project that needs to be supported with analysis as to why it will benefit resource management. As per the FSM Chapter 2470, this information is required to be provided to the Regional Forester, or at least in the project file, including: a concise statement that summarizes why it is deemed desirable to treat units larger than the maximum size specified in the Forest Plan; there should be supporting environmental analysis, which has evaluated all resources and socio-economic factors; reference should be made to the various chapters of the NEPA document where appropriate, with specific reference of where and how effects described in the NEPA document support the request for exceeding the 40-acres limitation.

We could not find any information on the Pintlar Face web site that provides this information. This information is also not provided in the draft DN, or in the final EA for the project. Given that large openings will create a severe localized impact on almost all wildlife species on the BDNF, the rationale for this decision needs to be provided to

the public. We have not been able to locate any such rationale for these proposed openings, including one at 496 acres. In particular, we could not find any analysis in the draft or final EA as to how many openings would exceed the average crossing distance of 383 feet for lynx (Squires et al 2010), and why these wide openings were being planned in spite of the creation of barriers to lynx (Holbrook et al. 2018, 2019, Kosterman et al. 2018).

3. The agency did not ever provide an accurate 60 day notice of proposed openings to the public.

In 2017, the draft EA noted that there were 4383 acres of openings planned over 40 acres in size, in 35 units. Adjacent units were not identified. In February 2 of 2021, the agency put a notice on their web page that 3,287 acres of clearcuts were planned. Adjacent clearcut units were not identified, including one unit of 496 acres. The reason for the change in large openings was not provided. In the draft DN, the agency stated that there would be 3,459 acres of clearcuts completed; adjacent units were not identified, including one of 496 acres. As was noted in the 2/12/20 web page notice, and the draft DN, units were added and removed over the planning process.

4. There is no analysis of the impact of large openings, including one of 496 acres, for any wildlife species in the NEPA analysis for the Pintlar Face Project, in violation of the NEPA; in spite of any such analysis, the agency has concluded that these large openings will have no significant impacts to wildlife, also in violation of the NEPA.

a. Failure to evaluate impact of openings for the lynx.

The wildlife analysis on lynx in Appendix D of the EA mentions that there will be 2,633 acres of clearcuts in lynx habitat of the Pintlar Face Project. This is inconsistent with the information provided in the draft DN at page 6, where it is noted that there will be 3,459 acres of clearcuts. The 2,633 acres of clearcuts were identified as an increase in early stand initiation habitat.

However, there was no analysis of the impact of large openings on barrier impacts to lynx. Yet the agency claimed that standard ALL S1 that requires maintenance of habitat connectivity within an entire LAU would be met. All opening wider than the average crossing distance for lynx in openings, or 383 feet, were not identified as barriers. The increase in barriers in the impacted LAUs thus was never identified as per connectivity. The impact of the 3,459 acres of large openings on habitat connectivity for lynx, which the current best science has demonstrated is 68% of the landscape, was not evaluated in the project analysis.

b. Failure to evaluate the impact of large openings on MIS elk.

Any opening will remove hiding cover for elk, and thus affect elk security. The BDNF RFP correctly identifies elk security in the glossary, as 250 acres or more of contiguous forest cover at least 0.5 miles from a motorized route. The loss of elk security due to the large openings was never evaluated in the Pintlar Face NEPA analysis, because the agency did not include hiding cover as a requirement for elk security. Thus the agency has violated the NEPA by providing a false, misleading analysis of project impacts on elk security.

The hiding cover requirement for security as per Hillis et al. (1991) was based on research demonstrating elk preferred a minimum size block of contiguous hiding cover in the hunting season (Lyon and Canfield 1991). The association between hiding cover and elk security has more recently been confirmed by Lowrey et al. (2020). This study in the Elkhorn Mountains, part of which are managed by the BDNF, found that in the hunting season, elk selected areas with a canopy cover from 23-60%, and preferred areas with 60% or greater canopy cover.

All of the proposed clearcut acreage will reduce elk security by removing cover. The removal of 3,459 acres of cover in clearcuts will significantly reduce elk security. As per Lowrey et al. (2020), elk security is provided by lodgepole pine stands with 80% pine beetle mortality, as they still retained a canopy cover level of 69%, which was about an 8% reduction in canopy cover. The initial 77% canopy cover level was restored within 7 years of the beetle epidemic. The proposed 3,459 acres of clearcut in the Pintlar Face project will also remove current hiding cover for elk.

The amount of elk security that will be reduced by the proposed large clearcuts, and whether this resulting percentage of security across the landscape is adequate (30%) was not provided to the public. The agency's rationale for creating large openings thus was not provided to the public, because the agency did not acknowledge that clearcuts will reduce security. This key factor was never identified to the public, even though the FSM manual direction requires the agency to provide a rationale to the public for the proposed large openings. This rationale needs to include a discussion as to why negative impacts (loss of elk security) are deemed less important than proposed benefits (unknown).

The failure of the agency to evaluate the impact of large clearcuts on elk displacement to private lands is a violation of the NEPA because this is a well-recognized issue. In a collaborative report between MFWP and the Forest Service (Helena-Lewis and Clark, Custer-Gallatin National Forests) it was repeatedly noted that currently in some areas of Montana, the distribution of elk have become a primary management issue; in some areas elk are present and spending significant amounts of time on private lands; issues with displacement from public lands to private lands, or disproportionate use of private lands are widely recognized (MFWP/FS 2013)

c. Failure to evaluate the impact of large openings on neotropical migratory birds.

There are a potential 67 species of western forest birds on the BDNF (Rosenberg et al. 2019). A list of these neotropical migratory birds was provided by the Idaho Fish and Game Department in 1992. Of these there has been a 29% decline in their overall numbers since the mid 1970s, and 64% of these species are in decline. Of these 67 potential species, 35 of roughly at least half of them are dependent upon old growth and snag forests. Region 1 of the Forest Service identified 33 wildlife species old growth-associated wildlife in 1990 (Warren 1990). More recently, the Flathead National Forest summarized wildlife species identified as old growth associates during some phase of their life cycle, as well as bird species dependent upon snags (USDA 2018). The following summary of neotropical migratory birds that are associated with old growth is a combination of both lists.

Neotropical migratory bird species associated with old growth that likely occur on the BDNF include at least 20 bird species: black-backed woodpecker, boreal owl, brown creeper, chestnut-backed chickadee, flammulated owl, golden-crowned kinglet, hairy woodpecker, Hammond's flycatcher, hermit thrush, Lewis woodpecker, northern goshawk, pileated woodpecker, pine grosbeak, red-breasted nuthatch, Swainson's thrush, three-toed woodpecker, Townsend's warbler, varied thrush, Wilson warbler, and great gray owl.

Neotropical migratory birds that are dependent upon dead trees and heavy downed wood for nesting and foraging habitat include at least 26 bird species: American kestrel, black-backed woodpecker, black-capped chickadee, boreal owl, brown creeper, chestnut-backed chickadee, downy woodpecker, flammulated owl, hairy woodpecker, house wren, Lewis woodpecker, mountain chickadee, northern flicker, northern hawk owl, pileated woodpecker, pygmy owl, red-breasted nuthatch, red-naped sapsucker, saw-whet owl, three-toed woodpecker, tree swallow, violet-green swallow, western screech owl, Williamson's sapsucker, and mountain bluebird.

When the overlap between these 2 groups of birds are considered, there is a total of 35 western forest birds that are highly dependent upon older forests, including those with high densities of snags. These are the same habitats that will be removed with the Pintlar Face project, in 3,459 acres of clearcuts, including 3332 acres over 40 acres in size (draft DN at 6), since the purpose of these clearcuts is to salvage lodgepole pine killed by the pine beetle and address future pine beetle epidemics (Project EA). All of these 35 species, or roughly half (52%) of all western forest birds, will suffer significant habitat loss with these clearcuts, with heavy concentrations of lost habitat within localized areas due to the size of clearcuts, including one up to 496 acres.

Yet there was no analysis of this planned impact on these western forest birds. The direct habitat loss on these birds was never evaluated in the Pintlar Face project, in violation of the NEPA and the MBTA and associated MOU. This failure to evaluate project impacts on migratory birds is also a violation of the NEPA because the agency determined that this project would have no significant impacts without supporting such with analysis.

Nor was the indirect impact of habitat fragmentation on western forest birds evaluated, in violation of the NEPA and MBTA and associated MOU.. The large clearcuts will create a local dilution of habitat that can create blocks of older forest and snag forests that are too small for forest birds. For example, the small brown creeper requires blocks of old growth of 250 acres (Wiggins 2005). The black-backed and three-toed woodpecker have habitat recommendations of unmanaged snag forests of roughly 500-1000 acres in size (Goggans et al 1989). Management for the pileated woodpecker includes 900 acre-blocks of habitat with 25% old growth and no clearcutting (Bull and Holthausen 1993). Research by Bull et al. (1997) found that pileated woodpeckers were severely reduced as the level of clearcutting increased within their home ranges.

The creation of extensive large openings in goshawk habitat, such as occurs in the Pintlar Face Project Area, will directly remove goshawk habitat.

Openings over 4 acres do not qualify as goshawk habitat (Reynolds et al. 1992). Thus the proposed large openings will remove 3,459 acres of goshawk habitat in the project area. In addition, the localized impact of these large openings will potentially convert forested goshawk habitat to open habitat for the red-tailed hawk habitat (La Sorte et al. 2004). Since red-tailed hawks are a generalist open-habitat species, they are not dependent upon forested habitat such as that which occurs in the Pindar Face project Area for persistence. So this habitat conversion ultimately reduces a Montana Species of Concern, the goshawk, to a common generalist species that is not a Montana Species of Concern.

The Targhee National Forest RFP requires that nesting sites of a number of neotropical migratory birds, forest owls and raptors, be protected from any logging activity (USDA 1997). For example, the boreal owl requires a protected 30-acre patch of forest around each nest site. The great gray owl requires complete protection of 20 acres around each nest. The flammulated owl requires complete protection of 20 acres around each nest site. And the goshawk requires 200 acres of protection around each nesting locale. The Pindar Face NEPA analysis did not indicate reliable surveys were conducted for 3 of these 4 species in the project area. In addition, only one goshawk nesting area was located within the 73,264 acres. Given the average home range size of a goshawk is 6,000 acres (Reynolds et al. 1992), there clearly should be more than one pair of goshawks using this landscape. So the quality of goshawk surveys is questionable.

Overall, it appears there is a high potential for the proposed clearcutting in the Pindar Face project to have significant detrimental impacts on neotropical migratory birds. Given the agency did not evaluate the expected level of these impacts, claiming these impacts will not be significant is a violation of the NEPA.

d. Failure of the agency to evaluate impacts of large openings on the pine marten.

There is no analysis in the Pindar Face NEPA documents as to how large openings will affect the pine marten. Given this species documented sensitivity to clearcuts, the failure to address effects to the pine marten in a project that includes 3,459 acres of clearcuts, including 22 over 40 acres in size, is a violation of the NEPA. The larger the size of clearcuts, the greater will be the impact on the home range of a pine marten. The average home range size of a female pine marten noted in USDA (1990) is 1750 acres. A clearcut of 496 acres in size that occurs in a female pine marten's home range will create a clearcut level of at least 28% in this home range. The science on pine marten management indicates that when the level of clearcutting within a home range exceeds 25%, this habitat is no longer suitable for pine marten persistence (Hargis et al. 1999). The effect of clearcutting on pine marten was also noted in a Montana Outdoors article in 1993. Fager (1993) noted that pine martens are highly dependent upon forests especially in the winter, when such forests have heavy deadfall that provide access to thermal cover and prey under the snow, and have dense canopies that reduce snow accumulation; for this reason, it was noted that clearcutting increases the size of a pine marten's home range, and when clearcuts are too large or dominate the landscape, clearcuts force martens to concentrate in remaining forested areas, lowering the overall carrying capacity. In the analysis of the large clearcuts proposed for the

Pintlar Face project, the agency needs to estimate how much the carrying capacity for pine marten in the project area will be reduced, and what the significance this reduction would be to the local population of pine marten.

e. Failure to evaluate the impact of large openings on moose.

As is noted in the maps for the Pintlar Face Project, the proposed clearcut units of 3,459 acres occur in moose winter range. These large openings will cause a high level of a local loss of critical moose winter range, which occurs in older lodgepole pine stands that have developed understories of subalpine fir that provide a key winter forage for moose (Tyers 2003). In addition, the openings will create movement barriers to moose due to high snow depths and crusting of snow in clearcuts (Tyers 2003). There will therefore be a double negative impact on moose. The agency did not identify this severe impact on moose, in violation of the NEPA. The expected reduction in moose carrying capacity due to the 3,459 acres of clearcuts, including 22 over 40 acres in size, was not evaluated in the Pintlar Face project, so the significance of these adverse impacts is unknown.

f. Failure to evaluate impacts of large openings on the wolverine.

The agency did not evaluate any impacts of the proposed projects on wolverine, apparently because the RFP requires only monitoring and evaluating the impact of snowmobiles on wolverine denning habitat. Yet there has been monitoring on wolverine on the BDNF, and in the Pintlar Face project area, that demonstrates that wolverine home ranges extend across large areas of the landscape at a wide range of elevations (see RFP 2009 monitoring report, page 62). Given that the Pintlar Face project occurs in documented occupied wolverine habitat across this landscape, including home ranges of 4 females and 2 males, it is a violation of the NEPA and the NFMA for the agency to fail to evaluate the impact of large openings on this sensitive species.

There is a considerable body of current best science that demonstrates that wolverine are highly sensitive to vegetation management activities, including adverse impacts due to displacement and avoidance of roads that are required for logging, as well as the avoidance of the actual timber harvest unit (Fisher et al. 2013, Scrafford et al. 2018, Stewart et al. 2016). Region 1 of the Forest Service has recommended that roads in wolverine habitat be limited to a mile per section (USDA 1992). Large clearcuts cannot be created without roads. Yet there was no analysis of the requirement of roads to create 22 large openings in occupied wolverine habitat, and how the creation of these openings will affect active motorized route densities for the wolverine.

In addition, the Pintlar Face project will reduce summer, fall and winter prey for the wolverine in the proposed large clearcuts by reducing moose and snowshoe hares on their winter range (Scrafford and Boyce 2018). The availability of elk gut piles from hunters, as well as unclaimed killed animals missed by hunters, will also be reduced as fall foraging habitat for the wolverine because of increased displacement of elk to private lands due to the large clearcuts that will be created on elk fall range.

g. Failure to evaluate the impact of large clearcuts on the grizzly bear.

The current best science recommends that landscapes in occupied grizzly bear habitat contain an open road density of one mile or less per section, and have 60% in core areas without any roads, in patches of at least 2464 acres per core area (Proctor et al. 2020). The Pintlar Face project area was not evaluated for the level of grizzly bear core habitat, or open road densities, that would result from the proposed intensive timber management program to create 3,459 acres of clearcuts within the lower elevation portions of the project area. There is likely a direct conflict between an intensive timber production program, including 3,459 acres of large clearcuts concentrated within the lower elevations of a 73,264 acre project area, and provision of grizzly bear core habitat of 60% and an active motorized route density below one mile per section. Claims that adjacent roadless and wilderness areas will mitigate impacts to grizzly bears is invalid, as this habitat already exists. It is not being created to mitigate habitat losses for the grizzly bear that will result from clearcutting 3,459 acres at lower elevations.

D. Violation of the RFP wildlife standard 9 and violation of the NEPA and the NFMA for using a Region 1 goshawk recommendation without any analysis or incorporation into the BDNF RFP with an amendment.

Wildlife standard 9 states that the agency will mitigate, through avoidance or minimization, management actions around known active nest sites of threatened, endangered, proposed candidate, and sensitive bird species, if those actions would disrupt reproductive success during the nesting period; during project planning consider applicable science regarding species needs (such as nesting periods and buffers) and site-specific consideration; this standard also applies to great gray owls and the northern goshawk.

Since the flammulated owl is a sensitive species on the BDNF, as is the black-backed woodpecker, these 4 species require reliable surveys of proposed vegetation treatment areas prior to treatments. The survey records for these 4 species for the Pintlar Project are not on the agency's web page. Some surveys are noted for the goshawk in the wildlife report, but the quality of such surveys is unknown. No surveys were noted for the flammulated and great gray owls and the black-backed woodpecker. The standard 9 suggests to the public that valid reliable surveys would be done for all 4 species. If the agency was misleading the public by implying that a nest would first have to be located in order for it to be protected, and that the agency would not be intentionally locating these nests, this is a NEPA and NFMA violation as the agency has provided misleading information to the public about their planned management activities.

As with the Pintlar Face project, it does not appear that any reliable surveys have been done for any of these 4 species during RFP implementation. The agency web page on forest planning notes that there has been no monitoring report for the RFP since 2011. Those reports done since the 2009 RFP was implemented do not contain any information of wildlife surveys for the great gray owl, goshawk, flammulated owl, and black-backed woodpecker. This indicates that the BDNF provided misleading information to the public on management actions to protect the viability of these 4 species. This is further substantiated in that the BE for the RFP does not indicate that any surveys will be done for these 4 species.

The RFP claim that nesting sites for the goshawk, flammulated and great gray owl will be protected is consistent with other agency management standards in forest plans. The Targhee National Forest RFP requires location and protection of nesting areas for these 3 species from 20-30 acres, as well as the boreal owl, which is a sensitive species on that forest (USDA 1997).

Since there have apparently been no adequate surveys for the great gray owl, flammulated owl, black-backed woodpecker, and possibly the goshawk, the impact of the proposed Pintlar Face project on these sensitive species is unknown, but potentially significant.

We would also note that the goshawk conservation strategy that is being applied to the Pintlar Face Project, or protecting a 40 acre nest stand during the period it is occupied, is not a RFP standard. It is a Region 1 recommendation. So the BDNF has never measured the effectiveness of this direction for goshawks, who is a Montana Species of Concern. This is a violation of the NFMA, since the agency is applying management direction for this species without ever monitoring its effectiveness, which is required by the NFMA, or obtaining public involvement for this management direction. As just one example, the RFP for the Targhee National Forest requires the protection of 200 acres around a goshawk nest (USDA 1997); this is 5 times the size recommended by Region 1. The Targhee RFP standard for goshawk nest stands is relatively close to the recommendation of the current best science, which is 180 acres. Reynolds et al. (1992) calls for 6 30-acre areas of both suitable and replacement nest stands (Reynolds et al. 1992). There is no monitoring data available to demonstrate the use of the Region 1 40 acre nest buffer for goshawks is valid to preserve occupancy of this territory. Thus the claim in the Pintlar Face NEPA analysis that saving just 40 acres around a known goshawk nest will avoid significant adverse effects (loss of the territory) is unverified based on a lack of monitoring of this implemented direction on the BDNF. The current best science recommends management of the entire 6,000 acres of a goshawk home

range, including the nesting area (180 acres), the postfledging area of 420 acres, and a foraging area of 5400 acres (Reynolds et al. 1992). So use of the 40 acre nest buffer as conservation and mitigation for the goshawk on the BDNF is not only a Forest Plan violation, but a violation of the NEPA as well since this conservation measure for goshawks has never been evaluated in comparison to the current best science, including in the Pindar Fact Project.

E. The agency failed to demonstrate that the RFP standard for old growth will be met in the project area after project implementation, in violation of the NFMA; the agency also failed to demonstrate that the clearcutting of 3,459 acres will not have significant adverse impacts on wildlife associated with old growth forests, in violation of the NEPA; finally the agency cannot use Forest Plan direction to escape the requirements of the NEPA.

1. The agency failed to demonstrate the RFP standard for old growth requiring 10% lodgepole pine distributed across the BDNF will be met in the Pintlar Face Project Area.

There is no analysis of project impacts on old growth. The RFP has a standard to retain 59% of the existing lodgepole pine old growth across the BDNF (RFP errata at 533). Table 168 in the RFP FEIS shows that 17% of the 1,256,056 acres of lodgepole pine on the BDNF, as per the RFP BA at page 37, would be reduced to 10%. This would retain 59% of the lodgepole pine forests as old growth, which would be 125,605 acres of old growth distributed across the Forest. Although not identified as to what constitutes "distributed across the forest," the public expects that this would mean that old growth distribution would be based on science. The definition of well distributed is every 10,000 acres (Suring et al. 1993). Thus in the Pindar Project Area of 73,264 acres, there needs to be 10% old growth in each 10,000 acres across the project area to meet the Forest Plan standard. The RFP also notes that lodgepole pine old growth can be logged down to the few trees identified as old growth minimum criteria. This could be done for the 42% of lodgepole pine old growth that is allowed to be removed as per the RFP, but this would not allow logging of the required 10% old growth.

There is ample evidence available to demonstrate that logging old growth stands will not maintain their value to wildlife, only a few examples that will be provided here. For example, published science has demonstrated that thinning of old growth forests will severely degrade its value for the pine marten (Moriarty et al. 2016), a species identified by Region 1 of the Forest Service as an old growth species (USDA 1990). It has also been demonstrated via science that logging old growth would not maintain its value for snowshoe hares (Holbrook et al. 2017a) as well as lynx (Holbrook et al. 2018-2019; Kosterman et al. 2018). The lynx has been identified as an old growth-associated species by the Forest Service (USDA 2018). Thinning old growth stands clearly will also not maintain habitat for the pileated woodpecker, a species identified by Region 1 of the Forest Service as associated with old growth (USDA 1990). Region 1 of the Forest Service defined nesting habitat for the pileated woodpecker as areas with a basal area of 100-125 square feet per acre and a relatively closed canopy; feeding areas were defined as having high densities of snags and logs, dense canopies, and tall ground cover (USDA 1990). Region 1 of the Forest Service (USDA 1990) also defined old growth forests as the following: has a relatively closed canopy, often with 2 or more layers, that create a more moderate microclimate; vertical diversity provides a variety of substrates for feeding or nesting, and supports development of forest component such as arboreal lichens. Logging old growth stands will clearly not maintain these habitat conditions identified for old growth, or for many old growth species that depend upon them.

2. The agency failed to demonstrate that the RFP for old growth will be met by retaining the minimum number of trees as per Green et al. 1991 in lodgepole pine clearcuts.

The RFP at 44 includes a standard noting that mechanical vegetation treatments and prescribed fire in old growth stands do not reduce the age and number of large trees and basal area below the 'minimum criteria' required for the Eastern Montana old growth in Green et al., Table 3. The minimum number of large trees to be retained in lodgepole pine old growth (those stands above the 10% old growth standard) are 12 trees of at least 10 inches dbh. The agency claims this standard would not apply because none of the 3,459 acres of clearcuts

proposed in lodgepole pine stands are old growth.

First, no actual data was ever provided to the public to demonstrate that all of these stands do not qualify as lodgepole pine old growth. Since there is 17% lodgepole pine old growth on the BDNF, it would seem unusual that none of this old growth exists in the 73,264 acre Pintlar Face project area. There is no summary of stand exam data for each of the 3,459 acres of lodgepole pine planned for clearcutting in the project area. Thus the agency claim that none of these stands qualify as lodgepole pine old growth is questionable. The NEPA requires that the agency provide high quality information to the public. This would include management information on old growth, given its importance to wildlife and importance as a public issue.

Second, the lack of 10% old growth within the Pintlar Face project area, if this is actually true, does not eliminate the RFP standard that 10% old growth well distributed across the Forest as a requirement. If existing old growth is in short supply, then the next best thing needs to be identified. After all, clearcutting old growth means it will be lost for at least 100 years, when complex older stands begin to develop, including those with pine beetle infestations. The science on old growth forests, and values to wildlife, do not have a specific threshold when it suddenly becomes valuable to wildlife. This was noted by a study funded by the Forest Service on the Lewis and Clark National Forest, in Douglas-fir forests. Whitford (1991) noted that early, mid- and late stages of old growth all have value to wildlife. Early phase old growth is also recognized by the Intermountain Region of the Forest Service (USDA 1993). These would include stands of lodgepole pine that do not meet the required 150 years in age for old growth, but do meet many other characteristics of old growth due to infestations of mountain pine beetles. These infestations create high levels of snags, that are essential to 26 species of western forest birds (USDA 2018). Downed logs are important habitat for the snowshoe hare (Bull and Blumton 1999, Bull et al. 2005, Hodges and Sinclair 2005), and thus benefit the lynx; these logs provide an alternate form of cover for hares that compensate for a lack of seeding and sapling subalpine fir in younger lodgepole pine forests. This complexity of forest habitat that can occur in lodgepole pine stands that are younger than 150 years in age has also been noted as a key factor for another old growth species, the pine marten. Chapin et al. (1997) noted that structural complexity often may be associated with age and species composition of forests; however, conservation practices should consider structural attributes that functionally influence the quality of forested habitats for marten, rather than merely age, species composition and canopy closure of the forest overstory.

The best potential lodgepole pine old growth, from early to mid to late phase old growth, needs to be identified and managed in the Pintlar Face project area to meet the BDNF RFP standard of 10% old growth well distributed across the forest.

3. The Forest Service is using the RFP to escape the requirements of the NEPA.

The current best science shows that the 10% lodgepole pine old growth standard in the RFP is invalid. For forest songbirds, the recommended level of old growth is 20-25% (Montana Partners in Flight 2000). The recommended level of old growth for the pileated woodpecker is 25% (Bull and Holthausen 1993). The recommended level of old growth for the goshawk is 20% (Reynolds et al. 1992). The historical levels of old growth in the northern Rockies is 20-50% (Lesica 1996). Thus the recommended levels of old growth for these species is at the low end of historical levels, which means it may be marginal for population persistence. Given the current plight of western forest birds (Rosenberg et al. 2020), including the impacts of climate change (D'Amassa 2020), including 35 species dependent upon snag forests and old growth, the Forest Service needs to define how the Pintlar Face project will impact all these species. This was not done, in violation of the NEPA. This analysis needs to be done at the project level, since there is no such analysis in the RFP.

F. The agency completed no analysis of road impacts on wildlife, yet concluded that the project will not have significant impacts on wildlife; use of the RFP standards as a measure of impacts to wildlife is a violation of the NEPA because logging roads are not counted as an impact, including in the Pintlar Face project; the current best science on road impacts on wildlife was never used in the project's determination of wildlife impacts, in violation

of the NEPA.

The Wildlife Report in Appendix D of the draft EA claims that roads will have no disturbance impact on the threatened lynx. Yet Squires et al. (2010) noted that road impacts were not observed on lynx when traffic volumes were 8 or fewer vehicle trips per day. The Pintlar Face NEPA analysis did not define any road use by levels of traffic, to support the claim that roads will have less than 8 vehicle trips per day. The Pintlar Face NEPA analysis did not identify the 1992 Region 1 recommendations that open roads in lynx habitat be limited to a mile per section (USDA 1992).

There was no analysis of how habitat effectiveness for elk, a Forest MIS used as an indicator of effects to other wildlife, in the Pintlar Face NEPA analysis, will affect elk summer use. Again, the traffic level of vehicles on roads that would be used for the project were never assessed. A collaborative project between the MFWP and the Forest Service (Custer-Gallatin, Helena[shy] Lewis and Clark National Forests) (MFWP/USDA 2013) noted that there is strong evidence that elk use declines as traffic volume increases; research has demonstrated that elk avoided roads that had 2-4 vehicles per 12 hours or higher; low intensity, occasional administrative travel and management activity on routes closed to the public could be reasonably excluded in habitat effectiveness analyses; however, consistent frequently-used non[shy] public routes or temporary roads would detract from habitat effectiveness if such roads are used during the summer.

Christensen et al. (1993) a publication developed by the research branch of the Forest Service in Region 1, noted that for areas intended to benefit elk, motorized route densities in the summer should be a mile or less, which would provide a 70% level of habitat effectiveness, which is close to a mile or less of open roads. This is the same level that is recommended by MFWP in their statewide Elk Management Plan (MFWP 2013). Half of elk habitat effectiveness is lost when road densities are 2 miles per section, which provides a 50% habitat effectiveness level (Christensen et al. 1993). At active motorized routes (any road with vehicle use) over 2 miles per section, the impacts to elk are a significant displacement impact. Yet there is no information provided in the Pintlar Face NEPA analysis that identifies which areas of the 73,264 acres project area will exceed this active motorized route density, and create significant summer displacement impacts to elk. As such, the claim that the project will not have significant adverse impacts on elk is never substantiated with any actual analysis. Habitat effectiveness is not measured with any current RFP standards for elk.

The impact of motorized route activity on elk during the fall hunting season has been indicated by research on an adjacent national forest (Helena-Lewis and Clark National Forest) that elk are more sensitive to roads than has been indicated by Hillis et al. (1991). Lowrey et al. (2020) found that elk in the Elkhorns preferred to be from 1.3 to 2 miles from active motorized routes in the fall, not the 0.5 mile distance noted by Hillis et al. (1991). This new research was not used in the Pindar Face NEPA analysis to compare the effects of the no action and proposed action alternative road impacts on elk security. This lack of analysis likely contributed to the agency's claim that elk security will not be significantly impacted by the Pindar Face Project.

The impact of the Pindar Face project road use and development was not accurately assessed for the threatened grizzly bear. The active motorized route density in grizzly bear habitat across the project that would result from the multiple widespread activities planned by the Forest Service was never identified. This is essential in order to measure the impacts of this project on this threatened species. Significant impacts would be triggered when active motorized route densities exceed 1 mile per section. This is the active motorized route density that has been recently recommended by 6 grizzly bear experts (Proctor et al. 2020). This is also the active motorized route density that was identified as needed for grizzly bear conservation in the 1993 Grizzly Bear Recovery Plan. This report includes a summary of the many adverse impacts of roads on grizzly bears, and concluded that open road densities should not exceed one mile per section in order to maintain management options.

In 2013, the MFWP published a management plan for grizzly bears (MFWP 2013). In this plan, where they summarized many adverse impacts of roads on grizzly bear, they recommended that land-management agencies

manage for an open-road density of one mile or less per square mile of habitat consistent with FWP's statewide Elk Management Plan.

It is likely that the active motorized route density that will result across the Pindar Face project area will exceed the recommended level of no more than one mile per section for grizzly bears. However, this is unknown due to a lack of analysis. There was also no analysis of the long-term impacts of roads on bears, even if they are closed. The impacts of closed roads on bears has been clearly noted in both MFWP's recovery plan for bears (MFWP 2013) and the 19973 FWS Recovery Plan (USDI 1973). Schwartz et al. (2010) noted that closed roads provide access for hunters, which in turn increases hazards for grizzly bears. Even when roads are decommissioned and closed to traffic, their effects continue on the landscape.

There was no analysis of roads needed for the Pintlar Face Project on the wolverine. Region 1 of the Forest Service recommended that roads in wolverine habitat be limited to one mile or less per section (USDA 1992). This recommendation was not noted in the Pintlar Face NEPA analysis.

Active motorized route densities that would be required for this project were never identified for any wildlife species, including the wolverine. Wolverine have been reported to be highly sensitive to roads, including even these roads have almost no traffic (Scraftford et al. 2018).

G. The Pintlar Face Project will violate the Migratory Bird Treaty Act (MBTA) and associated MOU, as well as the NEPA, NFMA and the Administrative Procedures Act, and the Roadless Area Conservation Rule (RACR).

1. Violation of the MBTA and the NEPA due to a failure to evaluate impacts on migratory birds from the proposed ecotone treatments on almost 6,000 acres of their habitats.

The MBTA and associated MOU with the FWS requires the Forest Service to evaluate the impact of agency projects on neotropical migratory birds.

There is no such analysis in the Pintlar Face Project although it proposes to remove trees in ecotones on 5,939 acres, or roughly 6,000 acres in the project area. And within these treatment acres, there will be approximately 585 acres of sagebrush burned in units; in the cut and burn units on 4,604 acres, 40% may be burned, so up to 2,427 total acres of sagebrush may be burned. In spite of these extensive habitat removal projects, there is no analysis in the Pintlar Face NEPA documents about how this will impact migratory birds, or the carrying capacity of this landscape for these birds. In addition, there was no estimate of how many birds will be killed by these vegetation treatments.

The status of North American land birds has been identified as a management concern (Rosenberg et al. 2019). These birds have lost over 3 billion individuals since the mid-1970s. In addition, the increasing weather disruptions from climate change have caused massive short-term losses of potentially millions of migratory birds in just one fall (D'Amassa 2020). The proposal to reduce neotropical migratory bird habitat on almost 6,000 acres of public lands in the Pintlar Face landscape, without any supporting analysis of impacts, clearly does not meet the requirements of the MBTA and associated MOU.

It is clear without any detailed analysis that the Pintlar Face project will have severe adverse impacts on local populations of migratory birds. The Montana Natural Heritage Project (2020) identifies at least 13 Species of Concern that will have habitat removed by the Pintlar Face Project. These include the following:

Flammulated Owl Northern Goshawk Brewer's Sparrow Sage Thrasher Clark's Nutcracker Green-tailed Towhee Pinyon Jay Cassin's Finch Loggerhead Shrike Greater Sage Grouse Golden Eagle Ferruginous Hawk Sagebrush Sparrow

Most of these 13 species are neotropical migrants (IDFG 1992).

The Flammulated Owl is known as a edge species. It nests in tree cavities in ecotones comprised of scattered forests within sagebrush habitats, and depends on dense patches of conifers for roosting and thermal cover (Wright 1996). This species is not only a Montana Species of Concern, but is also a sensitive species on the BDNF. Removal of trees in ecotones and sagebrush stands will remove habitat for this species. Juvenile Northern Goshawks depend on lower elevation ecotone habitats with scattered trees and sagebrush in the fall when they disperse out from forested parental territories (Wiens et al. 2006). A common prey species for these juvenile goshawks are cottontails and jackrabbits (Reynolds et al.

1992). Prescribed burning of sagebrush will eliminate habitat for both cottontails (Reynolds et al. 1992) and jack rabbits (Knick and Dyer 1997).

Tree removal will eliminate hiding and thermal cover for these juvenile goshawks as well.

Brewer's Sparrow are strongly tied to large patches of sagebrush for viability. The burning of sagebrush in the Pintlar Face project will directly remove habitat for this species, as well as fragment large patches of sagebrush, which reduces the suitability for this species (Montana Birds in Flight: Brewer's Sparrow 2000; Knick and Rotenberry 1994).

Sage Thrasher's are also highly dependent upon larger patches of sagebrush habitats, and will use some such habitats that include trees (Montana Birds in Flight: Sage Thrasher 2000; Knick and Rotenberry 1994).

The Clark's Nutcracker will feed on Douglas-fir seeds, as well as the large seeds of limber pine (Fisher and Myers 1979; Tomback and Kramer 1980; Vander Wall 1988; Vander Wall et al. 1981). Limber pines are a common ecotone tree species in southwestern Montana that occur between upper elevation forests and lower elevation grasslands.

The Green-tailed Towhee prefers dense stands of tall sagebrush, including adjacent to riparian drainages (Sara Johnson, pers. Com.)

The Pinyon Jay is strongly tied to ecotone pygmy forests, including those that contain juniper and limber pine adjacent to lower elevation grasslands and sagebrush habitat; this species has been demonstrated to be highly sensitive to forest thinning; currently it is one of the fastest declining migratory birds (Gillihan 1999; Boone et al. 2018; Magee et al. 2019; Somers et al. 2020).

The Cassin's finch is a colonial nester that nests in drainages with conifer trees adjacent to sagebrush habitats; mixed conifer-sagebrush habitat provide high quality foraging habitat (McWaldt and King 1985).

The Loggerhead Shrike uses sagebrush and ecotone habitats (Cade and Woods 1996; Wood and Cade 1996). It is one of the fastest declining landbirds in the US. (Audubon 2007).

The Greater Sage-grouse is strongly tied to sagebrush (BDNF RFP Biological Evaluation 2009). Sagebrush habitat will be burned in order to remove conifers, so sage grouse habitat will be removed for several decades.

Golden Eagles are strongly tied to sagebrush habitats for foraging, including on jackrabbits (Kochert et al. 1999). Jackrabbits are in turn strongly tied to sagebrush (Knick and Dyer 1997).

Ferruginous Hawks are strongly tied to sagebrush habitat with trees used for nesting and thermal cover, and have

jackrabbits for prey (Knick and Byer 1997).

Sagebrush sparrows are strongly tied to sagebrush habitats, including larger unfragmented patches (Knick and Rotenberry 1994).

The Pintlar Face project includes the burning of sagebrush on up to 1842 acres. This will destroy and fragment habitat for 5 Montana Species of Concern that are highly dependent upon sagebrush stands (Brewer's Sparrow, Sagebrush Sparrow, Sage Thrasher, Greater Sage-grouse, and Green-tailed Towhee).

The Pintlar Face project will remove trees from grasslands and shrublands, trees that provide nesting site, thermal cover, and conifer seeds for 6 other Montana Species of Concern, including juvenile Northern Goshawks, Flammulated Owls, Clark's Nutcrackers, Pinyon Jays, Golden Eagles, and Ferruginous Hawks.

Finally, the Pintlar Face Project will remove habitat for two other Montana Species of Concern that use savannas intermixed with sagebrush habitats as foraging and nesting habitat, including the Cassin's Finch and Loggerhead Shrike.

As a result of the proposed slashing and burning of almost 6,000 acres of neotropical migratory bird habitat in the Pintlar Face Project, 13 Montana Species of Concern will suffer reduced populations on these public lands. There are also other bird species that will be reduced with this proposal, including a low density raptor, the merlin (Becker and Sieg 1987) and the mountain bluebird (Swenson 1985; Herlugson 1982). Both of these species are characteristic of shrubland/savannas as these provide trees, including trees with cavities, for nest sites, within sagebrush foraging habitat.

The slashing of trees in ecotones will also reduce forage, in addition to the noted removal of limber pine, for many birds that use juniper berries as a key fall food resource (Balda and Masters 1980). Even sagebrush plants are known to produce up to 50,000 million seeds per hectare (Owens and Norton 1992).

All of the above bird species will also experience increased predation by ravens due to opening of their habitat with tree slashing and sagebrush burning. Coates et al. (2014) reported that the fragmentation and increases of landscape openings improves the hunting abilities of ravens, which are opportunistic predators on many species of wildlife, including nestlings of most bird species, including the sage grouse. Since ravens are aerial predators, they do not need trees for hunting perches. Claims in the Pindar Face NEPA analysis that removing trees will reduce predation on wildlife were not documented with any science. On the other hand, fence posts, including steel fence posts, provide hunting perches for many aerial predators, from owls to golden eagles. Steel fence posts have also been noted to provide perches for the Turkey Vulture (Sara Johnson, pers. Com.).

2. The Forest Service will violate the MBTA and associated MOU because there were no mitigation measures proposed to prevent killing migratory birds in logging and ecotone treatment unit; there was also no estimate of the number of migratory birds that will be killed, which is needed in order for the agency to obtain a "take" permit from the FWS for the birds that will be killed with the entire Pindar Face project, which includes 11,224 acres of impacts on birds.

The Pindar Face project will kill an undetermined number of neotropical migratory birds. There was no analysis in the NEPA analysis for this project how many birds are expected to be killed with the planned treatments on 11,224 acres of neotropical migratory bird habitat during their breeding season. Without this analysis, the agency has no basis for determining that the project will not have significant impacts on neotropical migratory birds.

2. Violation of the NEPA, the RACR, and the APA.

The agency intends to do many vegetation treatments within inventoried roadless lands. The rationale for these

treatments, as required by the RACR, was never quantified to the public. The draft DN at 31 states: Cutting of small-diameter conifer is proposed in the North Big Hole IRA. As described in the EA and in intensity factor 3 above, these vegetation restoration actions are expected to result in the enhancement of roadless character in the long term through restoration of the structure and composition of these native vegetation communities. As such, the cutting of trees within IRAs is consistent with 36 CFR 294.13(b)(1)(ii).

The claimed benefits of manipulating habitat in the IRA are never quantified to the public. This is a NEPA violation, as interventions in IRAs, which were established to maintain natural ecosystem conditions, requires the agency to provide specific, quantifiable information as to why intervention in the IRA is consistent with the nonintervention assumptions of the RACR. The agency claims that intervention is needed is inconsistent with the rationale as to why roadless areas were established - to let natural processes continue without management intervention. The reason for intervention, apparently to prevent unnatural ecosystem processes from occurring, were never identified. Specifically, why do trees in IRAs create unnatural ecosystems, and what science states that removal of trees within an IRA will restore ecosystems? This information was never provided to the public, in violation of the RACR and the NEPA.

The agency also claims that removing vegetation in treatment units in the North Big Hole IRA will improve habitat for the threatened grizzly bear by increasing security, and by restoration of important and unique vegetative communities (draft DN at 20). It is never identified as to why vegetative communities that lack trees are unique and important with this IRA, especially as it requires removal of habitat for 13 Montana Species of Concern. This is a NEPA violation, as important information is not being provided to the public as to why habitat for birds needs to be removed for a unique habitat which the wildlife values were never defined (openings without trees and possibly without sagebrush).

As noted above, there will be severe habitat losses for neotropical migratory birds with the proposed IRA intervention. The public is expected to believe that neotropical migratory birds, including species of concern, constitutes "restoration" of this IRA. This is a violation of the APA, as the claims that removing habitat for Montana Species of Concern is needed to restore the IRA. How can removal of many Montana Species of Concern qualify as ecosystem restoration?

H. The agency will violate the ESA, the NEPA and the NFMA by falsely claiming that destruction of whitebark pine recruitment will not impact future recruitment in clearcuts, and thus logging will not be detrimental to persistence of whitebark pine in clearcuts.

The draft DN at 23-24 summarizes why the Pindar Face Project will not create any noticeable impacts on whitebark pine. These include clearcuts will be in areas where whitebark pine does not "thrive." Whitebark pine trees that will be destroyed are not cone producing trees. Many areas of whitebark pine are outside the proposed logging units. Whitebark pine will be avoided to the extent possible, especially trees larger than 3 inches dbh. And logging will reduce the threat of pine beetles to whitebark pine in the future, as well as reduce future threats of catastrophic fire.

In summary, the agency is assuming that whitebark pine is not doing well in proposed clearcuts. The basis for this is unknown. There is no reasonable inventory data of whitebark in the 3,459 acres of proposed clearcuts. As was noted by Reinhart and Mattson (1990) and Mattson and Jonkel (1990), whitebark pine occurs in a wide variety of forest habitats, not just in the high elevation whitebark pine habitat types. If it is only preserved in these high elevation areas, many whitebark pine trees scattered across lower elevations will be removed. The effect of just protecting whitebark pine in the highest elevations where few other trees can tolerate the severe conditions is never addressed by the agency as how this promotes conservation of this proposed species.

Also, Mattson and Jonkel (1990) as well as Reinhart and Mattson (1990) noted that recruitment levels in mixed conifer stands with whitebark pine are typically low. So using recruitment as a basis for claiming that whitebark

pine are not thriving in the stand is an invalid measure of its long-term persistence in such stands.

Second, the agency states that there will be no significant impacts on whitebark pine because no cone producing trees will be removed. The age that whitebark pine begins to produce reasonable levels of cones is quite old, a 100 years (Mattson and Jonkel 1990), which means that a large number of relatively mature whitebark pine trees could be removed in this project.

Also, it is noted that trees under 3 inches dbh will not be protected, even though these are whitebark pine that will recruit into the upper canopy eventually. So the conservation strategy for whitebark pine in the Pindar Face project is to just save the older trees, with the rest being eliminated. Yet this strategy is not supposed to reduce viability of whitebark pine in this landscape.

The agency did not cite any science that demonstrates logging is required to prevent "catastrophic" fire in these areas occupied by whitebark pine. It is not clear what actually qualifies as "catastrophic" fire. It is never defined in the NEPA analysis for the Pindar Face Project. Without some actual quantified measures of the protective value of logging to whitebark pine in regards to fire, versus the cost of removal of what may be most younger whitebark pine in mixed conifer stands, the public cannot understand how these tradeoffs between protection and logging are being made by the agency.

There is no information provided in the analysis of clearcutting mixed conifer stands containing various levels of whitebark pine in regards to past agency treatments in whitebark pine stands to increase recruitment. Keane and Parson (2010) in a Forest Service research report noted that logging in whitebark pine done to increase recruitment has proven to be failures. So why is logging mixed conifer stands with whitebark pine, where the recruitment is being eliminated, being done to obtain recruitment?

I. The Forest Service failed to identify the adverse impact that logging forest stands containing whitebark pine will have on the threatened grizzly bear, in violation of the ESA, the NEPA, and the NMFA.

The value of whitebark pine to grizzly bears is based on the presence of the red squirrel, who caches the pine nuts which are then obtained by grizzly bears (Mattson and Jonkel 1990, Reinhart and Mattson 1990). The Pindar Face project area is occupied by grizzly bears. Whitebark pine are an important food resource for grizzly bears. The clearcutting of forest stands that contain some levels or pockets of older, cone producing whitebark pine will eliminate red squirrels which means that any whitebark pine cone producing trees saved in these stands will have no value to grizzly bears.

This impact may be significant, given that clearcutting includes 3,459 acres of this occupied habitat.

J. The Forest Service is implementing an outdated RFP that fails to ensure the viability of forest wildlife dependent upon old growth, snag forests, for 67 species of western forest birds, for 13 species of sensitive bird species associated with ecotones, for conservation of the threatened lynx, threatened grizzly bear, and the wolverine, for conservation of whitebark pine trees, and for addressing climate change; the RFP also fails to ensure that undisturbed forest habitat is available for all wildlife species, including big game animals, during both the summer and the fall.

As noted in the previous sections of this objection, the BDNF RFP violates the NFMA by failing to maintain a diversity of wildlife on the Forest, including those dependent upon old growth, snag forests, and ecotones. The RFP needs to be amended to correct these deficiencies.

As previously noted, the BDNF RFP has no meaningful road density standards, including those based on the current best science. The RFP needs to be amended to correct this deficiency, so that valid road density standards are implemented for the grizzly bear, wolverine, Canada lynx, and elk during both the summer and fall

hunting season.

As previously noted, the BDNF RFP has no meaningful standard to protect habitat security for wildlife, including the wolverine, grizzly bear, and elk. This lack of a meaningful security standard means that connection of the Yellowstone and Northern Continental Divide grizzly bear populations is not being promoted. Maintaining wolverine occupancy across the BDNF is not ensured. The displacement effect of a lack of elk security on the BDNF is contributing to a State-wide problem of elk displacement to private lands in the fall. The RFP needs to be amended to address these serious deficiencies.

The BDNF RFP as per the Northern Rockies Lynx Management Direction (2007) does not promote conservation of the threatened lynx because the current best science has not been incorporated into this conservation direction. This conservation direction needs to be amended so that the current best science is used for lynx conservation. Even though the FWS has provided an incidental take statement for use of this NRLMD on the BDNF, this BiOp also failed to use the current best science to review the proposed management impacts on lynx of the RFP, which makes it invalid.

The RFP has no meaningful analysis of the impacts of climate change. The RFP outlined a massive logging and slashing/burning program on the forest, a program that will in turn create massive losses of the forest's ability to store carbon. This program also requires massive use of fossil fuels for these activities, including in inventoried roadless areas, which in turn promote global warming. The RFP clearly needs to be amended so that this climate crisis is addressed, rather than exacerbated by BDNF policies.

The RFP also needs to be amended because the agency is planning to increase hazardous fuels programs by 120,000 to 150,000 acres during the remaining implementation period of the RFP to 2016 (BA for the RFP on lynx, page 39). The agency cannot implement such a program until there has been complete public involvement during a RFP amendment.

Until these amendments, and associated public involvement have been completed, NEC, AWR and Y2U believe that any additional management activities on the BDNF, including the Pindar Face Project, are a violation of the NEPA, the NMFA, the BSA, the RACR, and the MBTA.