

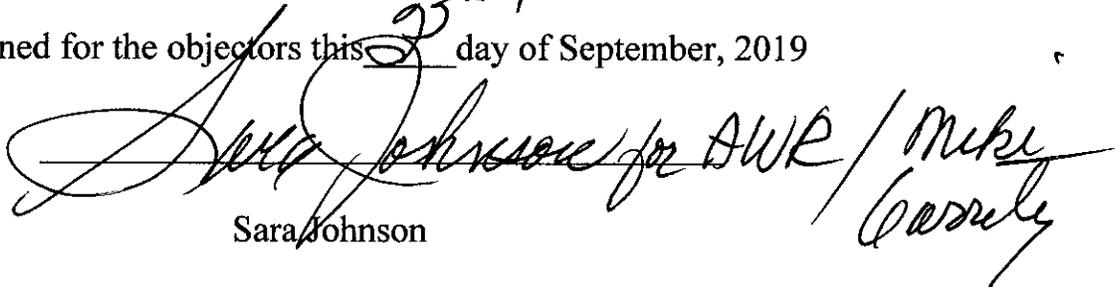
Objection
filed against the Taylor Hellroaring Project
September 23, 2019

Objectors:

Lead objector: Alliance for the Wild Rockies; Director Mike Garrity;
PO Box 505, Helena, MT. Phone 406-459-5936

Native Ecosystems Council, member of AWR; Director Sara Johnson;
PO Box 125, Willow Creek, MT 59760. Phone 406-579-3286

Signed for the objectors this ^{23rd} day of September, 2019


Sara Johnson

Name of Project and Location:

Taylor Hellroaring Project on the Tally Lake Ranger District of the
Flathead National Forest.

Responsible Official:

Chip Weber, Forest Supervisor

**Connection between Proposed Project and Prior Participation, and
Supporting Reasons for the Reviewing Officer to Consider:**

AWR provided scoping comments on this project on April 28, 2017. AWR submitted an objection on this project on July 5, 2018. We are incorporating these comments and previous objection in with this current objection in order to avoid repetition. We thus are carrying forward, via incorporation, of our previous issue concerning the requirements of the National Environmental Act (NEPA) for agencies to ensure the scientific integrity of the information and analyses that are provided in NEPA documents.

The current draft Decision Notice (DN) and Environmental Assessment (EA) continue to lack the scientific integrity essential for agency documents, including especially the analysis of project impacts on lynx and lynx critical habitat, as well as the grizzly bear. Management of the threatened lynx is a key concern for AWR and NEC, and the proposed project will have significant adverse impacts on this species, including within critical habitat, due to the proposed vegetation treatments. The impacts of the new road construction, and especially the vast expansion of mountain bike trails, presents a huge potential impact on lynx as well as grizzly bears which was essentially dismissed in the draft DN and EA, as well as by the U.S. Fish and Wildlife Service (FWS) in their biological opinion (BiOp). Management of these key species will promote the conservation of many other species, including the pine marten, northern goshawk, pileated woodpecker, and black-backed woodpecker, for example.

As we noted previously in our comments and objection, the proposed project will remove huge expanses of grizzly bear/lynx habitat, without providing any mitigation. Of particular concern is the planned burning of forest habitat that is important to wildlife. The agency never provides a valid rationale as to why this destruction of forests will benefit the grizzly bear and lynx.

In addition, this project involves massive, relatively permanent disturbances to the landscape. These disturbances include not only the impact of treatments on almost 2000 acres, but the agency notes that many of these treatments will require repeated treatments in order to either maintain or achieve desired results. In addition, the massive mileage of new trails (28 miles) along with the conversion of 14 miles of existing roads to bike trails, will be a permanent disturbance/displacement impacts on both grizzly bears and lynx across the 7800 acre project area. Although the agency claims that "mitigation" will be completed to provide screening cover along roads open to the public, this measure is never actually quantified. Instead, it is nothing more than a general statement of mitigation. It seems highly likely that almost no such mitigation will actually occur.

And no mitigation along mountain bike trails is planned. A large percentage of these new trails will go through vegetation treatment units, where no hiding cover will remain in either the overstory or understory. Recovery of vegetation in these units will require at a minimum 20 years. So how can a severe displacement impact for 20 years be considered nonsignificant? Also, many post-project activities (e.g, BMPs, road maintenance, tree planting,

pile burning, slash burning, weed spraying), will occur during key periods for the grizzly bear (spring) as well as for many years after the vegetation treatments are done. Also, the prescribed burning of forests may take many years as well, due to the narrow window of time during which burning with helicopters will actually be feasible. Finally, the many miles of new trail construction will not even start until after vegetation treatments are completed. And there is no time period for which all the trail construction ever identified. Will this trail construction continue for decades?

Overall, this proposal involves massive, continued disturbance/displacement activities for both grizzly bears and lynx, which is a violation of the Endangered Species Act (ESA) as well as the National Forest Management Act (NFMA). And the claims that this proposal will not create significant impacts to wildlife is also a violation both the National Environmental Policy Act (NEPA) due to a lack of actual measurement of impacts, as well as a violation of the Administrative Procedures Act (APA), as it is implausible that such massive, relatively permanent disturbances to wildlife are somehow not a significant impact. As one example, the draft DN and EA do not even quantify what the vehicle traffic levels will be on all roads, including those closed to the public, during and after vegetation treatments, or actually, how long these roads will have administrative use following timber harvest, such as for repeated prescribed burning activities, or trail construction. Unless the information is provided on actual traffic levels on these roads, the impacts to grizzly bears and lynx cannot be described. And there is no information on how the proposed mountain bike trails will impact grizzly bears, either by the Forest Service or the FWS.

This objection focuses largely on an expanded analysis of project impacts on lynx, to avoid repetition of our previous objection, but we would still like to carry these previous issues and concerns forward as a part of this current objection.

Attachments:

We are including 3 appendices along with this objection. Appendix A includes a summary of the current best science in regards to the lynx. Appendix B contains copies of the relevant literature cited in the objection that was not already provided in the bibliography of the project EA. Appendix C includes a copy of the scoping comments (7/2/18), previous objection (9/23/10), and current objection (9/19/19) against the Taylor

Hellroaring Project provided by the Swan View Coalition. We are providing these documents for incorporation into our objection.

Remedies:

Although there are many legal violations of the proposed action, the most severe include violations of the ESA in regards to grizzly bears and lynx. The proposed conversion of this lynx critical habitat and grizzly bear recovery habitat into a recreation area for mountain bikers should not go forward, as these will permanently degrade and displace these threatened species from this conservation habitat. In addition, the Lynx Amendment is a conservation failure that promotes extinction, not recovery of the lynx. This conservation strategy needs to be scrapped and a valid conservation strategy developed via NEPA that actually ensures conservation of the lynx.

Summary of Aspects Addressed by the Objection:

A. The Forest Service and the U.S. Fish and Wildlife Service (FWS) will violate the NEPA, the NFMA, the APA and the ESA if the Taylor Hellroaring Project is implemented as defined in the draft Decision Record.

A. Agencies falsely claim that the Taylor Hellroaring Project will not significantly impact the Canada lynx (hereafter “lynx”); lynx habitat and lynx critical habitat will be significantly adversely impacted by the proposed project, in violation of the ESA; the agencies also failed to identify how the project will reduce snowshoe hare home ranges, even though hares are a critical prey species for lynx, in violation of the NEPA and the ESA; both agencies failed to use the current best science to identify how the project will impact snowshoe hare home ranges in lynx habitat and lynx critical habitat, in violation of the NEPA and the ESA; these violations also result in a violation of the APA, since there is no connection made between a lynx critical prey species, the snowshoe hare, and lynx persistence; the agencies also violated the NEPA, the

NFMA and the ESA by using an invalid, unverified proxies as measures of project impacts on lynx, including the 6% exemption, and the creation of up to 30% of a lynx analysis unit as unsuitable lynx habitat.

1. The agencies use the Northern Rockies Lynx Management Direction (hereafter “Lynx Amendment”) as an invalid proxy for maintaining lynx population viability in the Northern Rocky Mountains.

The proxies for lynx persistence in the Lynx Amendment are not based on any existing science for lynx. Instead, these proxies are based on habitat criteria in the Lynx Amendment that have never been demonstrated as effective for lynx conservation. The Lynx Amendment does not require any population monitoring of lynx in the Northern Rockies in order to ensure that the Amendment is effective in conserving lynx. Instead, the agencies use a “proxy” for lynx populations by 2 measures. The first is keeping a running tabulation of the 6% exemption allowed for lynx habitat loss in the Amendment. The second is a limit of 30% unsuitable lynx habitat within a lynx analysis unit (LAU).

To date, the agencies have not demonstrated that limiting lynx habitat loss to the 6% exemption will maintain lynx populations in lynx habitat and lynx critical habitat. The actual basis for the 6% exemption is unknown as per lynx science. Due to a lack of required monitoring of lynx populations, there is no means of demonstrating that this 6% exemption is not significantly impacting lynx populations, even after implementation of this exemption for 12 years to date. As is demonstrated in the Taylor Hellroaring NEPA analysis, as well as the FWS Biological Opinion (BiOp), there is information provided on lynx population trends in the Northern Rockies. Without this information, the agencies are violating the ESA and the ESA by using invalid proxies of lynx habitat as a substitute for population data and trends.

The agencies also claim that adherence to the Lynx Amendment standard of no more than 30% unsuitable lynx habitat within an LAU ensures persistence of lynx. This standard was based on the 1989 Brittell et al. recommendations, which is 30 years outdated. New science indicates that this standard could result in severe degradation of lynx habitat, including within critical habitat. For the Taylor Hellroaring project, there are 2 LAUs

that occur in the project area. The Upper Big LAU has 18,322 acres of lynx habitat, while the Lakalaho LAU has 21,135 acres of lynx habitat (EA 3-135, Table 3-46). A 30 removal of lynx habitat allows 5496 acres of regeneration harvest in the Upper Big LAU, and 6340 acres of regeneration harvest in the Lakalaho LAU. The current best science indicates that core home ranges for female lynx average about one half of their total home range (Kosterman et al. 2018). The median home range for female lynx in the Northern Rockies is approximately 55 square km, or 13,600 acres (Holbrook et al. 2017a). One half of this home range which would be core would average roughly 6800 acres. The Lynx Amendment thus allows the almost complete removal of lynx habitat within a core home range just from regeneration harvest treatments, as the distribution of treatment units is not restricted. In addition, the Lynx Amendment does not restrict any vegetation treatments other than regeneration harvests. Thus sanitation/salvage, commercial thins, and fuels treatments are not restricted. Yet all of these treatments will degrade or removal snowshoe hare habitat, lynx hiding cover, and lynx travel habitat (Holbrook et al. 2017a, Holbrook et al. 2017b, Holbrook et al. 2018, and Kosterman et al. 2018). The Lynx Amendment does not require that lynx habitat use be known in any LAU, thus female core areas do not have to be identified. Thus any allowed treatments as per the Lynx Amendment will occur randomly across the LAU, with unknown but potentially devastating impacts to female lynx core areas.

The only information that appears to be available on lynx population trends is Squires (2004) where he noted that lynx may be declining in the Seeley Lake area, and USDA 2011, where Dr. Squires discussed lynx management with the Forest Service.

2. The agencies make invalid claims that adverse impacts to lynx habitat and critical lynx habitat are not significant for the project because impacts are “temporary.”

The agencies claim that planned vegetation treatments in lynx/hare habitat are not significant because these impacts are “temporary,” and are thus not significant. The claim that temporary impacts cannot be measured as significant is a violation of the NEPA and ESA. In addition, expected impacts on lynx and hares will be relatively long term from the project. The current best science indicates that there is up to a 34 year time period for “recovery” of lynx habitat after vegetation treatments, where lynx use returns to 50% of potential use; for all vegetation treatments, there is a

complete lack of lynx use for at least 10 years (Holbrook et al. 2017b). This loss of lynx habitat for 10-34 years triggers a habitat loss for lynx for this period, and is thus an adverse impact. In addition, claims that snowshoe hares begin using clearcuts within 20 years after treatment is inconsistent with information provided by lynx expert, Dr. John Squires, that lynx use advanced regeneration units 50-70 years after treatment (USDA 2011).

3. The agencies failed to evaluate how the project would impact snowshoe hare habitat as per the current best science, in violation of the NEPA and the ESA.

There is no analysis in the Taylor Hellroaring NEPA analysis, BA, or BiOp as to how many snowshoe hare home ranges will be eliminated by this and adjacent projects, which means that the loss of snowshoe hare home ranges has not been considered as per adverse impacts on lynx or lynx critical habitat. The science on vegetation treatment impacts on snowshoe hare habitat is provided in the attached Appendix A for this Objection. The loss of snowshoe hare home ranges is measurable. Along the eastern border of the 7800 acre project area, there are 3 large blocks of forest where snowshoe hare habitat, and lynx hiding cover/travel habitat will be completely eliminated. The maximum size of a snowshoe hare home range is roughly 25 acres (Griffin 2004; Lewis et al. 2011). These treatment blocks are as follows:

a. Northern treatment block on eastern boundary of project area, of approximately 322 acres, or 13 snowshoe hare home ranges, including:

- Unit 1 – 18 acres
- Unit 2 – 12 acres
- Unit 3 – 14 acres
- Unit 4 – 47 acres
- Unit 5 – 38 acres
- Unit 6 – 39 acres
- Unit 7 – 16 acres
- Unit 8 – 14 acres
- Unit 9 – 50 acres
- Unit 10 – 12 acres
- Unit 11 – 8 acres
- Unit 12 – 13 acres
- Unit 13 – 37 acres

Unit 14 – 20 acres

Unit 15 – 14 acres

Total: 316 acres, or roughly 13 snowshoe hare home ranges

This does not count the adjacent planned logging on State lands for the King Hemlock Project, which appears to include roughly 70 acres, bringing the size of this contiguous treatment block almost to 400 acres.

b. Central block on eastern border of project area, includes approximately 418 acres, or 17 snowshoe hare home ranges:

Unit 17 – 16 acres

Unit 19 – 11 acres

Unit 20 – 6 acres

Unit 21 – 3 acres

Unit 22 – 47 acres

Unit 23 – 30 acres

Unit 24 – 8 acres

Unit 25 – 37 acres

Unit 27 – 17 acres

Unit 28 – 38 acres

Unit 29 – 15 acres

Unit 30 – 27 acres

Unit 31 – 10 acres

Unit 32 – 8 acres

Unit 33 – 20 acres

Unit 34 – 44 acres

Unit 50 – 32 acres

Unit 51 – 3 acres

Unit 100 – 9 acres

Unit 101 – 37 acres

Total: 418 acres, roughly 17 snowshoe hare home ranges.

These acres do not count the immediately-adjacent State logging project of at least one-half a section, or 360 acres, which adds an additional loss of roughly 14 snowshoe hare home ranges; these adjacent treatment units could bring the total contiguous loss of snowshoe hare habitat to 778 acres, or 31 snowshoe hare home ranges.

c. Southern treatment block in project area, approximately 317 acres, or 13 snowshoe hare home ranges, including:

- Unit 41 – 45 acres
- Unit 42 – 24 acres
- Unit 43 – 31 acres
- Unit 52 – 12 acres
- Unit 53 – 9 acres
- Unit 103 – 32 acres
- Unit 143 – 45 acres
- Unit 144 – 59 acres
- Unit 145 – 15 acres
- Unit 146 – 45 acres

Total: 317 acres, roughly 13 snowshoe hare home ranges

d. Forest burning Unit B1 of 102 acres, or roughly 4 snowshoe hare home ranges; this unit is approximately a mile in length and about a half mile away from the northern treatment block.

e. Forest burning Unit B2, which is 318 acres, or roughly 13 snowshoe hare home ranges; this unit runs for about 1.5 miles in length, and parallels the central treatment blocks less than about a fourth of a mile to the west.

The combined loss of snowshoe hare home ranges from these 5 treatment blocks comes to 60 snowshoe hare home ranges that will be eliminated on Forest Service lands with the proposed project. The cumulative loss of snowshoe hare home ranges when combined with the planned state logging project, provided these lands contain snowshoe hares, would be another 430 acres, or 17 snowshoe hare home ranges, for a combined estimate of 77 home ranges that will be eliminated from vegetation treatments.

The loss of 77 snowshoe hare home ranges is a measurable estimate for this project. However, this analysis was never done by either the FS or the FWS, in violation of the ESA, the NEPA, the NFMA and the ESA. This is clearly a measurable adverse impact on lynx and lynx critical habitat.

The creation of vast areas of hare habitat also ignores the importance of high horizontal cover for hares in order for them to avoid predation. Squires in USDA (2011) noted that if hares do not have good hiding cover, they are killed by predators. Lewis et al. (2011) also noted that hare survival due to predation is low in open areas.

4. The Lynx Amendment, and as applied to the analysis of the Taylor Hellroaring Project, did not include the current best science for lynx by either agency, including in the BiOp and BA, and EA.

The current best science has identified that productive female lynx home ranges consist of at least 50% mature, highly-contiguous dense forest habitat and moderate amounts of small diameter and larger diameter advanced regenerating forests (Kosterman 2014; Kosterman et al. 2018). None of this science was used to evaluate the impacts of the proposed Taylor Hellroaring project on lynx, in violation of the NFMA, the NEPA, and the ESA. The conclusions that impacts to the lynx will not be significant, and that no adverse impacts will result to lynx critical habitat, are thus invalid.

5. The Lynx Amendment did not include the requirement of well-distributed lynx habitat in this conservation strategy based on Brittell et al. 1989, which results in the potential for large blocks of non-lynx and non-hare habitat to be created in lynx habitat and lynx critical habitat, with adverse impacts on lynx persistence, in violation of the ESA.

The Lynx Amendment ROD at 9 and 16 notes that the Amendment was based on Brittell et al. 1989 management recommendations for lynx in Washington State. These habitat recommendations include one that addresses the distribution of lynx habitat, in that habitat recommendations were to be applied to each 640 acres of lynx habitat, rather than within the LAUs identified by the Lynx Amendment. As noted previously, the LAUs affected by the Taylor Hellroaring project include up to 30 sections of lynx habitat. Thus this basic premise that lynx habitat needs to be well distributed was arbitrarily eliminated from the Lynx Amendment as per Brittell et al. 1989. The failure to include this requirement means that female lynx home ranges can be severely degraded with the Lynx Amendment, which is supposed to promote conservation of this threatened species.

The wisdom of the Brittell et al. (1989) recommendations for maintaining all lynx habitat conditions within each section of the landscape has been proven to be highly relevant to lynx management. Kosterman (2014) identified the importance of “adjacency” of advanced regeneration habitat next to dense mature forest habitat. These areas appear to provide optimum conditions for lynx to capture hares within the mature forest habitats, even though hares will be more abundant in adjacent regenerating stands (spill-over of hares into forest). This importance of adjacency was further identified by Holbrook et al. (2017b). The failure of the Lynx Amendment to manage for “adjacency” of these different types of lynx foraging habitat means that it fails to address an important factor in lynx conservation. Brittell et al. (1989) also recommended that openings should be no wider than 300 feet, although widths up to 1200 may be crossed by lynx. The Lynx Amendment does not restrict the size of forests opened up with vegetation treatments, and thus does not address fragmentation of lynx/hare habitat.

6. The Lynx Amendment allows an invalid limitation of what is identified as lynx foraging habitat, which means it lacks an effective conservation strategy for lynx.

The Lynx Amendment identifies only 2 types of lynx foraging habitat: advanced regeneration forests, or stand initiation forest, and multi-story forests. The Amendment also classifies new clearcuts as “unsuitable lynx habitat,” although the Forest Service has since claimed that these are summer lynx habitat (Squires and Ruggiero 2007 noted that hare densities in summer open young clearcuts were very low). Regardless, open areas are identified as low value hare and lynx habitat (Holbrook et al. 2017a, b; Holbrook et al. 2018; Kosterman et al. 2018; Kosterman 2014). Because only a few habitats are considered as hare habitat in the Lynx Amendment, and no verification is required on the ground, a large percentage of hare habitat is not protected in these conservation measures. Hares do not simply exist only in advanced regeneration units and multi-storied forests. For example, Squires and Ruggiero (2007) reported summer hare densities in the Northern Rockies as 0.34 hares per ha in mature dense forest, 0.18 hares/ha in mature open forests, 0.64 hares/ha in young dense forest, and 0.18 hares/ha in young open forests. In the winter, this paper reported that hare densities were 0.53 hares/has in mature dense forest, 0.2 hares/ha in mature open forests, 0.47 hares/ha in young dense forests, and 0.12 hares/ha in young open forests. Lewis et al. (2011) reported hare densities across the landscape as highly variable, ranging from 0.03 to 2.38 hares/ha.

Holbrook et al. (2017b) sampled hare densities across a vast portion of the Northern Rockies, and found that in forest habitats (over 40% canopy cover) hares were present on 67% of the forest plots. Hare pellet densities occurred in a range, including from 0.28, 0.81, 1.48 to 4.21 pellets per ha.

Because the Lynx Amendment defines hare occupancy on such a limited, unverified scale, a large percentage of hare habitat is not protected. This means that the key prey species for lynx has no effective protection in the Lynx Amendment, because even if high-density patches of hares are protected, populations will decline on the landscape due to poor-quality matrix habitat (Walker 2005; Lewis et al. 2011). Management of hare can't be limited to only the very best habitat, as is the case for the Lynx Amendment.

7. The analysis of roads on lynx in the Taylor Hellroaring NEPA analysis, including in the BiOp, does not address any actual increases in traffic volumes on roads, which means the disturbance impacts have not been assessed, in violation of the NEPA and the ESA.

The Taylor Hellroaring NEPA analysis cites Squires et al. (2010) as the justification that the increased traffic volumes will not affect lynx. This research was actually misquoted, as Squires et al. (2010) noted that lynx were not displaced/disturbed by "low volume traffic" on roads, including because the roads in their study area generally had dense forest cover adjacent to them. They stated that lynx did not avoid roads when there were only a few vehicles per season. Low volume roads were defined as 8 vehicle trips per day; high volume roads were defined as 55 vehicle trips per day; spur roads were generally gated and had less than 20n vehicle trips per year.

Squires (2009) also noted that lynx do not avoid roads when there are only a few vehicles per season; he didn't know how lynx would respond to higher traffic volumes.

Traffic volume is key to measuring impacts on wildlife from roads. For example, in collaborative work by the Forest Service and the Montana Fish, Wildlife and Parks (USDA 2013, page 1), biologists cited research including: a review of the scientific literature regarding elk, roads and traffic, provides strong evidence that elk use declines as traffic volume increases (6 citations); Johnson et al. found that elk avoided roads that had

2-4 vehicles per 12 hours or higher. This report also noted at page 18 that consistent, frequently-used non-public routes or temporary roads would detract from habitat effectiveness if such roads are used during the summer.

Traffic volume has also been identified as the measure of displacement/disturbance for grizzly bears. Mace et al. (1996) reported that grizzly bears in the Swan Mountains of Montana exhibited neutral or positive selection for road buffers surrounding closed roads receiving less than 10 vehicle trips per day but avoided buffers surrounding roads having over 10 vehicle trips per day.

8. The analysis of mountain bike trails that currently exist, and those that will be added via new trail construction or conversion of roads to mountain bike trails, was not evaluated in the Forest Service or FWS analysis of project impacts on lynx.

The project will result in a significant increase in mountain bike trails in the project area, with 28 miles of new trails, and conversion of additional existing roads to mountain bike trails. There is thus no basis for claims that these impacts will not be significant for lynx habitat, or create significant adverse impacts to lynx critical habitat.

9. The Forest Service's intentions to reduce lodgepole pine distribution in the project area, while at the same time increasing ponderosa pine and western larch, represents a permanent adverse impact across this landscape on lynx, which is a violation of the ESA; the FWS also violated the ESA by claiming that this management program would not adversely impact lynx or lynx critical habitat.

In the response to comments in the draft Decision Notice, the Forest Service notes repeatedly that one purpose of the project is to reduce subalpine fir, lodgepole pine, and spruce, while increasing western larch and ponderosa pine, which are the preferred species they want to manage for (e.g., see Response to Comments 11, 13; EA pages 2-13, 2-20; 3-7, 3-8, 3-26; Draft Decision Notice Appendix A at 9). The rationale for this permanent change in forest structure in lynx and critical lynx habitat is never addressed as per long-term impacts on lynx and their habitat. Brittel et al. (1989) in USDA 1992, in providing management recommendations for lynx, noted that lodgepole pine forests are very important to lynx, and that these forests should not be converted to more economically-valuable tree species. The

Lynx Amendment ROD at 9 and 16 refers to these recommendations as the basis for the 2007 management strategy. This is a violation of the NEPA and the ESA. A change in forest characteristics from present conditions to those that would promote timber harvest (larger trees provided by larch) would have severe permanent adverse impacts on lynx and their prey species, hares. Back in 2004, Griffin noted that lodgepole pine as well as Douglas-fir provide relatively highly nutritious forage for hares, and that larch, because it was a deciduous conifer species, does not provide winter forage for hares. Recent research (Holbrook et al. 2017b) reported that there is a strong positive association between lynx and lodgepole pine forests in the Northern Rockies. This is in part due to the high nutritional value of lodgepole pine over other conifers. *Id.* They reported that ideal habitat for hares, and thus lynx, is a combination of lodgepole pine forests that contain subalpine fir and spruce; these conditions provide optimum forage resources for hares in the winter along with protective cover from predators. They also noted that forests with a canopy cover of larch were used the least by hares, including in the winter due to the sparseness of cover since larch is a deciduous conifer that loses its leaves in the winter. This also means that larch does not provide winter forage for hares. Squires et al. (2010) also noted that lynx avoided larch forests in the winter due to the fact that larch is a deciduous tree that drops leaves in the winter, and thus would not provide hare forage. The lack of good cover provided by larch seedlings and saplings in the winter may cause avoidance of lynx due to the lack of good hiding cover. Predation has been identified as one of the primary mortality factors in lynx (Squires et al. 2006).

10. The rationale for burning forests at upper elevations in the project area as per lynx critical habitat was never identified or evaluated.

The EA at 1-6 notes that the whitebark pine forests at higher elevations contain a large percentage of subalpine fir and spruce. These areas would provide good quality hare habitat as a result. The proposed to burn about 500 acres of this lynx habitat was never evaluated as to why this promotes the conservation of lynx and critical lynx habitat. This is a violation of the NEPA and the ESA, as well as the APA, as there was no connection identified for the rationale to burn up lynx habitat. The benefits were never identified.

11. The measurement of vegetation treatments on lynx and hares was invalid.

There will be 1813 acres of vegetation treatments for the Taylor Hellroaring Project, including logging, fuels reduction, and prescribed burning of mature forests (Table 1, draft DN). Yet only 827 acres are counted as an impact on hare/lynx habitat (EA 3-137). This means that only 46% of the total impacts on lynx/hare habitat are actually counted for this project. It is not clear what acres of treatment were excluded as an impact on lynx/hares. It was noted in the EA at 3-137 that commercial thinning would not affect the forest structural stage, so this may be one type of treatment that was not counted as an impact on hares/lynx. This would be a direct contradiction of the current best science. Holbrook et al. (2017b) reported that lynx avoided all types of vegetation treatments, including regeneration cuts, selection cuts, and thinnings, and that all these types of treatments had recovery times from 10-43 years after treatment. For a commercial thinning treatment, recovery time was measured at 20 years.

All of the fuels treatments would remove cover for lynx, who are known to avoid open forests and openings (Holbrook et al. 2017a). Also, the removal of the understory in fuels treatments would largely eliminate hare habitat, including both forage and cover. The agency has thus underreported the actual impact of this project on lynx and hares, in violation of the ESA and the NEPA.

12. There was no valid analysis of the disturbance levels that will occur to lynx as a result of this project, including both the extent of time that disturbances will be required to maintain conditions targeted for this project, in violation of the ESA and the NEPA.

This project will cause massive and permanent disturbances to lynx and lynx critical habitat. For example, the prescribed burning will be done in both the spring and the fall (DN Appendix A-11; spring treatments will also include slash burning, pile burning, road maintenance of seasonal and open roads, sale preparation, and planting; helicopter burning will require 1-3 days per year over 5 years. The DN Appendix A-12 notes that road objectives for restoration will be done 1 year after project completion, except for burning, reforestation, and BMP completions. Contractors may camp in the project area during project implementation (Draft DN A-12). All fuels and burn treatments will require future maintenance (Draft DN A-23). There will be an ultra marathon next year (Response to comments at 25). Class 2/3 trails will likely receive high levels of trail use, including on stacked loops

(Response to Comments 28). Trails will have to be constructed after the logging treatments are done (Response to Comments 32). There are no seasonal trail restriction (Response to Comments C-39). Dogs are not restricted on trails (Response to Comments 39). Maintaining roadside screening cover will be difficult in skyline units (Response to Comments C-40). The agency will need the ability for more helicopter flights due to the short burning window (Response to Comments 41). One-third of the bike proposed trails will be within 500 meters of an open road (Response to Comments 43). There will be trails along the spine of the Whitefish Range (Response to Comments 55). Over time, burning units could be treated multiple times to achieve desired results (EA 3-32, 3-35).

13. The Lynx Amendment has no valid conservation value for the lynx because lynx habitat is not measured according to elevation and slope; as a result, the areas most suitable for both lynx and logging are generally targeted for vegetation treatments, with severe adverse impacts to lynx.

The current science has noted that lynx prefer to use gentle, rolling terrain (Squires et al. 2010), as well as mid-elevations instead of higher and lower elevations (Holbrook et al. 2017). As Squires (2009) noted, there is a direct conflict between areas selected for vegetation management and prime lynx habitat; he noted that preferred lynx habitat is limited in western Montana, and these are the same boreal landscapes that are most impacted by forest management, since thinning reduces the value of these areas to lynx. Holbrook et al. (2017) also addressed this problem, noting that mid-elevation areas provided on multiple use lands provide more productive populations of snowshoe hares as compared to higher elevation and/or rough landscapes, such as occur in Glacier National Park and various wilderness areas. Hare occupancy on multiple use lands averaged 59%, but only averaged 37% occupancy in Glacier National Park and 41% in wilderness areas. The huge importance of gentle, productive forest lands to lynx are never considered in the Lynx Amendment, resulting in a high potential for poor quality lynx habitat to be the habitat that is retained for lynx, while higher quality habitat is logged and/or treated for fuels.

B. The adverse impact to lynx and their key prey species, the snowshoe hare, is never mitigated with replacement habitat;

the agencies never demonstrate why a lack of mitigation avoids the trigger of significant impacts; an assessment of significant impacts cannot be based on the Lynx Amendment, since the allowed habitat losses (36%) are not based on any actual analysis of vegetation treatment impacts on lynx and hares, and do not include the impacts of habitat fragmentation and loss of lower-quality hare/lynx habitat provided in forests without dense understories.

The Taylor Hellroaring Project will eliminate almost 2,000 acres of lynx habitat for a minimum of 10 years, with recovery time for some vegetation treatments requiring up to 34 years before 50% lynx use is restored due to vegetation development (seed tree, and clearcuts) (Holbrook et al 2017). This project will also eliminate an estimated 60 snowshoe hare home ranges on Forest Service lands, with an additional impact of 17 more home ranges removed on adjacent state lands. There is no replacement habitat that is being provided, which of course could not actually be accomplished due to the time it takes for habitat in vegetation treatments to recover to hare/lynx habitat. The impact of lost habitat is never actually evaluated as per the current best science, but is only based on general “estimates” provided in the Lynx Amendment, which is outdated by over 10 years. Squires et al. (2010) noted that lynx in the Northern Rockies survive on very low hare densities, and as a result, any reductions could have significant impacts on lynx persistence. This impact in lynx critical habitat is even more serious, as it is an unmitigated adverse impact. The agencies have not demonstrated what current science demonstrates that this habitat loss in lynx and lynx critical habitat will not significantly impact lynx persistence in this immediate landscape.

C. The agencies falsely claim that the application of the Lynx Amendment will not jeopardize the continued existence of the lynx, in violation of the NEPA, NFMA and the ESA.

As is demonstrated in this objection, the Lynx Amendment will allow lynx to become extinct on landscapes where this direction is applied. Since the Lynx Amendment applies to all occupied lynx habitat in the Northern Rockies, as well as all critical lynx habitat in the Northern Rockies, the continued existence of the lynx is clearly threatened by this failure of

effective habitat management, in violation of the ESA. The Lynx Amendment is clearly a violation of the ESA, and as well, the NEPA by claiming that it will ensure persistence of the lynx.

D. The Taylor Hellroaring Project Biological Opinion fails to include a detailed discussion of effects of the project.

In particular, the BiOp fails to adequately address the Project's effects that will be caused to grizzly bears by the addition of 28 miles of new trails, along with the conversion of another 14 miles of roads to mountain bike trails. The BiOp also fails to address the effectiveness of purported screening cover that will be provided along open roads. The impact of a lack of hiding cover along many miles of mountain bike trails is also never addressed.

E. The BiOp for the project is invalid because it tiers to the Lynx Amendment instead of using more current science to measure impacts to the lynx; the conclusions that the project will not adversely impact lynx and lynx critical habitat are invalid as a result, as they conflict with the current best science that post-dates the Lynx Amendment.

The FWS falsely determined that the proposed project will not adversely impact lynx or lynx critical habitat by using the Lynx Amendment as a measure of adverse impacts. To date, the Lynx Amendment has never been verified as an effective conservation strategy for lynx. The FWS did not provide any population trends for lynx in the Northern Rockies for this project to demonstrate that current measures implemented by the Lynx Amendment are actually promoting lynx. The FWP is violating the ESA by using a conservation strategy for lynx, the Lynx Amendment, to measure adverse impacts to lynx and lynx critical habitat since this strategy is progressively causing the likely extinction of lynx in the Northern Rockies.