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Attn: Bitterroot National Forest Programmatic Plan Amendments

Submitted to the online portal:
https://cara.fs2c.usda.gov/Public/CommentInput?Project=57302

Team Leader Smolt,

Please consider these comments on the February 2023 Draft Environmental Assessment (EA) for the Bitterroot National Forest (BNF) Programmatic Amendment for Elk Habitat, Old Growth, Snags and Coarse Woody Debris (CWD).

I am disappointed by this proposed programmatic amendment for elk habitat, old growth, snags and coarse woody debris (Amendment). The Forest Plan is long overdue for revision. The BNF had planned to complete the revision process with the Lolo National Forest (LNF) years ago. The LNF has just begun the forest revision process, but the BNF elected to separate from the joint process and instead chose this expedited method to essentially revise its own plan without the full analysis that is required in a revision.

After delaying revision for years, the BNF has continuously used site-specific amendments to essentially revise the forest plan with little analysis. Most were done with EAs instead of full Environmental Impact Statement (EIS) process. Essentially the forest has been programmatically amending the forest plan for decades. Even with the Amendment in process, they continue to revise the forest plan with site specific amendments, death by a thousand cuts. Mud Creek (https://www.fs.usda.gov/project/?project=55744), Gold Butterfly (https://www.fs.usda.gov/project/?project=51486) and the proposed Bitterroot Front (https://www.fs.usda.gov/project/?project=57341) projects all use the proposed amendments in site-specific form.

This Amendment removes or greatly weakens almost all protections for wildlife and old growth. This will affect the human environment greatly and cannot possibly qualify for a FONSI. Few protections remain other than an objective to retain vegetative biodiversity in lands suitable for timber management. It demonstrates the focus of the current BNF administration to get the cut out and increase acres treated above and beyond preserving habitat and biodiversity throughout the forest. It also represents a complete disregard for the importance of old growth and mature forests to carbon storage and carbon sequestration to mitigate this warming globe. Sadly, it does not even put importance on elk or hunter opportunity.

This Amendment will allow new roads under a variety of circumstances and loopholes that do not exist in the current plan. Roads are clearcuts removing trees, disturbing soils, fragmenting habitat, and changing hydrologic function. This increase in clearcuts must be analyzed especially since roads could be built in areas where debris flows due to lack of maintenance can and have happened. A large debris flow in the Willow Creek area dumped huge amounts of sediment into bull trout critical habitat in the spring of 2018. The Amendment does not make it clear how this

increase in roads and clearcuts will prevent debris flows. Nor does it ensure future funds for continued road maintenance. The Amendment does not consider the current backlog of road maintenance on the BNF or the current budgets to handle these and new roads in the future.

The 2016 BNF travel plan proposed roads to be decommissioned during project specific analysis. The Amendment does not consider how the creation of new roads will affect the expected reduction in roads promised in the Travel Plan. Yet the biological opinion for grizzly bears uses the travel plan proposal to determine a finding of no jeopardy. The travel plan is based on the 1987 Forest Plan without the Amendment.

The Amendment essentially codifies conditions-based analysis promising to not make decisions without "future site-specific analysis." Conditions based analysis continues to be shot down in the courts most recently with the Sagehen decision. This wording must be removed from the EA and replaced with the promise of pre-decisional, detailed, site-specific analysis concerning actions allowed in the Amendment including the building, reconstructing, or opening of roads temporary and permanent.

The EA claims that any new roads that might be allowed would be administrative use only so would have little effect. Please demonstrate that these road closures are effective across the forest. It also claims that illegal road use was not considered or analyzed because it is not within the scope of the Amendment. If the EA claims that roads reserved for administrative use will not have an effect, then the rampant illegal use of both closed and open roads on the forest must be considered. The ease of the creation of user created roads provided by new roads in new places must also be analyzed. Ironically the EA also states that no roads will be built because of the Amendment while describing the roads that will be built due to its implementation. The EA is deficient without a thorough analysis of illegal road use on the forest and how any new roads, administrative or otherwise, allowed would affect the forest and its wildlife.

The Amendment will change the forest plan dramatically removing strong protections for wildlife and old growth that exist in the current plan. The BNF is taking a short cut for a much overdue forest plan revision. Choosing this route will revise the forest plan without the extensive analysis required for a forest plan revision. To add insult to injury the BNF is using the minimal analysis of an EA instead of the more thorough analysis of an EIS.

The Amendment would allow the forest to commercially log old growth as long as the Green et al minimum criteria is retained. Minimum criteria according to Green et al is 8 large, old trees and a minimum basal area including both small and large trees. But Green et al also states "The minimum criteria are used to determine if a stand is **potentially** old growth. Where these values are clearly exceeded, a stand will usually be old growth. (Emphasis added,)" Retaining minimum criteria as stated in the amendment will allow logging that will leave the minimum required for potential old growth not the "exceeded values" necessary for actual, functioning old growth. The EA does not acknowledge that the Forest Plan was amended in compliance with the 2012 planning rule to use Green et al as a screening process. But it never allowed green et al to become the definition of old growth. There is no need for this old growth amendment except to cut down trees.

A recent study by DellaSala et al 2022 cautions against active management in mature and old growth forests. "Active management through logging cannot restore the extensive deficiency of large, old trees from past agency management." The study encourages a more hands off

approach. “Passive management may be able to do this restoration at low cost over very large areas.”

The EA claims, “There is no plan to reduce all old growth stands to a minimum number of trees.” But there is no restriction within the new guidelines that prohibits logging old growth to these minimum characteristics. The Amendment also allows for new scientific information to automatically replace Green without NEPA. FW-GDL-VEG-01 states, “vegetation management activities in old growth should retain all minimum old growth characteristics as defined in Green et al. (2011) **or new best available science**. (Emphasis added.) This guideline also uses the term, “should” rather than a more stringent “will.” So, the reality is they “should” but they might not even retain the minimum characteristics.

The idea of minimum characteristics as a definition or even an assurance that functional old growth will be protected is suspect. Green et al makes no promise that these minimums will equate to old growth. It states just the opposite on page 11.

> The minimum criteria in the "tables of old growth type characteristics" are meant to be used as a screening device to select stands that may be suitable for management as old growth, and the associated characteristics are meant to be used as a guideline to evaluate initially selected stands. They are also meant to serve as a common set of terms for old growth inventories. Most stands that meet minimum criteria will be suitable old growth, but there will also be some stands that meet minimum criteria that will not be suitable old growth, and some old growth may be overlooked. **Do not accept or reject a stand as old growth based on the numbers alone; use the numbers as a guide**.

The emphasis is in the Green et al text. Clearly and in bold letters, the minimum characteristics are not meant to define old growth. To use these minimums as a definition as specified in the Amendment is egregious and grossly incorrect.

Green et al goes on to say, “A stand dominated by trees of the age and size listed under minimum criteria is generally good potential old growth. The number of trees is meant as a guideline for how many trees it takes to produce older stand characteristics, and **should not be used as an absolute**.(Emphasis added.)” Yet the Amendment does just that by using minimum characteristics to define old growth. And finally Green et al concludes, “The minimum criteria are used to determine if a stand is potentially old growth. Where these values are clearly exceeded, a stand will usually be old growth.” There is nothing in the Forest Plan that precludes using Green et al as a screening process in site specific analysis as the BNF has done. But it does preclude logging beyond the Forest Plan glossary definition of old growth, 15 trees 20 inches DBH or greater. It seems there is only one reason to suspend old growth standards and to redefine old growth as a stand with the minimum characteristics provided in Green et al. That reason is to allow the logging of old growth stands to the minimum characteristics listed in Green et al. There is also nothing in the forest plan that forces logging of old growth if it does not meet qualifications. Ecologically, retaining old growth is a must, so why not just do it? The only amendment needed is to retain old growth across the forest if the BNF refuses to value old growth and mature forests without it. The percentages of old growth mandated in areas suitable for timber production must also stand to allow for connected habitat across the forest.

The Forest Plan pushes for 40 acre stands of old growth, but it does not specify that the entire stand must be old growth. “Provide 40-acre stands of old growth by coordinating management activities in this area with activities in adjacent management areas and with intermingled riparian and unsuitable management areas (III-3)” It proposes connecting old growth stands with riparian areas and unlogged areas to create 40 acres of connectivity. The area connecting

old growth to riparian areas would also be left in tact to ensure corridors for wildlife. Combining old growth with potential old growth would also create these connected intact forests vital to wildlife. It seems the folks putting together the 1987 Forest Plan recognized the need for connected areas of intact forests and old growth. The idea that small 5 acre plots of old growth surrounded by roads and cut to the bare minimum would supply con-ected habitat for wildlife, is not sound.

There is also nothing in the Forest Plan that precludes protecting and retaining old growth. It encourages more old growth by specifying percentages in areas suitable for timber production. It must not have occurred to them that industrial logging would happen in areas not suitable for timber or they would have included percentages for those areas as well. The Amendment calls for retaining old growth everywhere on the forest, but only the minimum criteria will be retained. "The proposed amendment would remove the numerical percentages of old growth to be maintained in MA 1, 2, 3a and 3c, because the desired condition is to increase the amount of old growth forest on the landscape, regardless of the existing percentages (EA 29)."It would be better to ask for the retention of old growth across the forest and leave the current glossary definition. Only then would old growth and the species that depend on it be protected.

The Forest Plan definition leaves out age. This helps streamline analysis of old growth by bypassing the need for coring trees. While this might mean that some stands might be assessed as old growth when they do not meet the minimum age requirements, it would retain mature forests as mandated in EO 14072. As Green et al makes clear, age is important but should not be the only deciding factor in assessing old growth. If the forest plan protected a mature forest vs an old growth forest, wouldn't it be following Executive order 14072? And wouldn't that also protect and retain soon to be old growth stands? Instead, during the Buckhorn GNA project, a stand identified as old growth was cored and found to be not as old as specified in Green et al. So it was logged. As the EA mentions, old growth changes over time. How will we assure its existence on the forest if we do not also protect mature forests that will become old growth?

The implementation of the definition of old growth and the old growth guidelines is not properly analyzed without a ground truthed inventory of old growth using the Forest Plan criteria and one using the Green et al criteria. This should be easy to do since the Forest Plan mandates an inventory every three years which would have been done with Forest Plan criteria. Where is this information and how does it compare with green et al ground truthed analysis of old growth across the forest? Without ground truthing, it is impossible to state whether an area is old growth. This is a bait and switch for the public. The EA advertises much more old growth but in project specific analysis, much of that old growth will be determined otherwise. Without ground truthing, the comparison in the EA is not valid.

The EA page 16 states, "The Forest Plan defines thermal cover based on crown closure, whereas research since 1987 has shown that canopy cover, which, though analogous, is more accurately and consistently measured than crown closure (Paletto and Tosi 2009, Mirik and Ansley 2012, Hulet et al. 2013, Richardson and Moskal 2014)." However, Jennings 1999 made it clear that canopy cover and canopy closure are not analogous. "Unfortunately, canopy cover and canopy closure have been considered to be synonymous by the authors of several standard textbooks (e.g. Philip, 1994: 132, Avery and Burkhart, 1994: 269). This has led some authors to attempt comparisons between measurements of canopy cover and canopy closure without recognizing that they are distinct variables (p 63)."

Canopy is essential to wildlife. “The forest canopy is one of the chief determinants of the microhabitat within the forest. It affects plant growth and survival, hence determining the nature of the vegetation, and wildlife habitat (ibid p 59).” Canopy closure measure thermal cover and depends on a range of tree sizes while canopy cover does not. “Tree height does not affect canopy cover as the vertical projection of the crown alone is assessed. Canopy closure will increase beneath progressively taller trees as more and more of the sky hemisphere is obscured. Canopy closure is likely a better to be a measure of greater utility to foresters, as it will be directly related to the light regime and microclimate and will, therefore, be linked to plant survival and growth at the point of measurement (ibid p 62-63).” The Amendment incorrectly equates canopy cover and canopy closure which will affect wildlife and vegetation across the forest.

Coarse Woody Debris (CWD) is used frequently by many species including sensitive species, Management Indicator Species (MIS), migratory birds, and proposed and listed species. Keisker 2000 demonstrates this in a series of charts making it clear that the elimination of standards for diameter limits in CWD will affect wildlife including grizzly bears, lynx, pine marten, pileated woodpecker, wolverine, and a host of sensitive species. This has not been analyzed sufficiently in the EA. In fact it admits, “Even so, the bottom of the range still allows for soil function and provides small mammal habitat (EA 23).” What about larger mammals, insects, fungi, and mycorrhiza? These are not mentioned.

The EA implies that the new CWD guidelines would, “A range of amounts of coarse woody debris in treated stands allows for adequate structure, function and process of soils and non-game habitat without imposing an impractical precision requirement on contractors. There is no incentive for a minimum amount to be left, especially when the contractor must sometimes revisit a treated unit to remove excess woody debris (EA 23)” Please demonstrate any time a contractor has been asked to return to a site to replace CWD in the past 20 years. The forest plan should be focused on the ecology of the forest not the convenience of contractors.

The wildlife report shows that the CWD and snag retention standards have been successful. “When the Forest Plan began to mandate snag and coarse wood retention post-1987, harvesting that has been done has had less of a negative impact on pileated woodpeckers, and prescribed burning is helping to recruit new, fire-scarred snags (WILD 36).” Why are we changing either of these standards? Keisker 2000 provides charts showing the need for dead top trees for wildlife of all sorts including grizzly bears, lynx, wolverine, pileated woodpeckers, eagles, and a large variety of cavity nesting birds. The forest plan specifically calls for retention of these trees in the old growth criteria that is being jettisoned in the Amendment. In the past, the BNF marked dead topped and decaying trees for retention as wildlife trees in project areas where logging was planned. This would be consistent with forest plan goals to retain connected habitat throughout the forest. Has this process been abandoned? Please show recent projects where wildlife trees have been marked for retention including the Gold Butterfly and Mud Creek projects. If it has stopped, when did it stop and why.

Please demonstrate that the Amendment complies with the Migratory Bird Act. Please also analyze effects to MIS species. The forest plan requires the BNF to monitor and report populations of MIS species each year (IV-9). Where is this analysis and why is it not included in the EA?

The grizzly bear biological assessment (GBBA) and subsequent biological opinion (BO) are outdated and do not consider the added amendments of old growth, CWD, snags and thermal cover. It should be updated and all factors affecting grizzly bears must be analyzed and disclosed. This must include all illegal motorized use and user roads and trails in core areas. It

must also consider proposed road reconstruction and temporary road building in core areas. According to Scarpato 2013, even though most off road vehicle "users know and understand that staying on-trail is an important limit on their activity, a majority of users prefer breaking new trail, most do so from time to time, and as many as one-fifth do so on a regular basis (p 143)." How many enforcement officers are available, how many off-road citations have been written, and how many off-road violations have been reported in the last 10 years in the project area? Illegal use has not been disclosed or analyzed.

The idea that logging and road building temporary or permanent does not affect wolverine is based on two USFWS petitions that state that there is "no evidence" that wolverine are affected by forest management activities (USFWS 2013, 2018). Not only were both petitions either vacated or withdrawn, the lack of evidence does not prove no affect. As Chow-Fraser 2022 found, "Wolverines failed to successfully occupy areas with linear features as these entrain unsustainable competition via the coyotes that exploit them. Thus, landscape management aimed at minimizing linear feature density, decommissioning roads and trails, and restoring linear features (Tattersall et al 2020b) are likely needed to conserve wolverine." The biological assessment (WBA) does not consider linear features in maternal and primary habitat. It does not provide the inventory of user created roads and trails created during the travel planning process. Nor does it disclose proposed road building and logging in maternal and primary habitat. The idea the wolverine can move to another place begins to erode with 20 year projects across the forest which is the current state of affairs on the BNF. As the figure 1 below shows, an increase in linear features effects wolverine greatly.

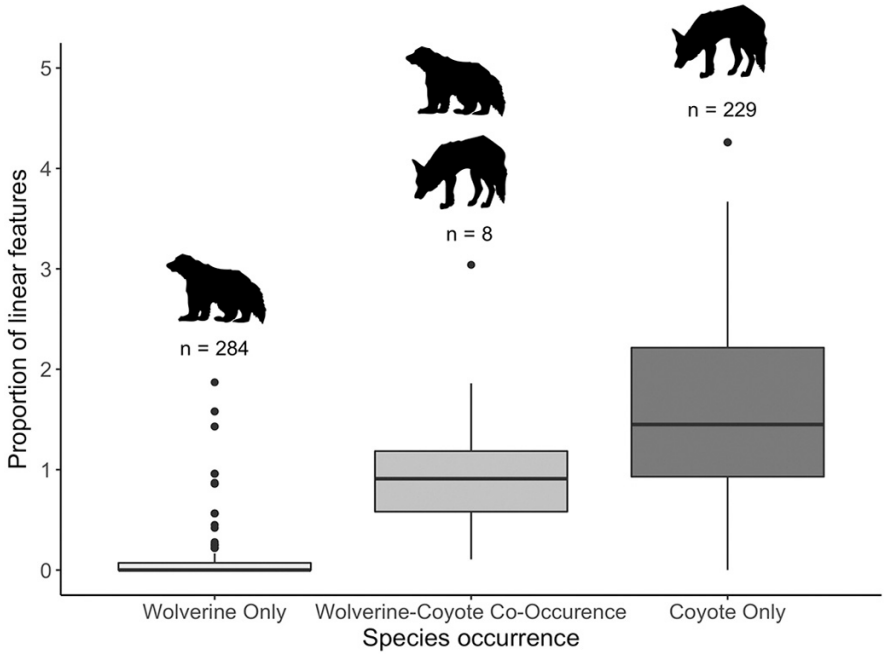

figure 1 from Chow Fraser 2020

The EA merely acknowledged the possibility of competition, but does not analyze effects. "In winter, plowed roads and snowmobile access provide access for trappers and possibly competitors."

Motorized recreation continues to evolve into highly powerful and maneuverable vehicles that access high elevation areas with deep snow, maternal habitat. Snow motorcycles can weave through tight trees creating easy motorized access to remote areas. Even closed roads offer easy travel into higher areas of untreated forests occupied by female wolverine. This video gives an idea of the capabilities https://www.youtube.com/watch?v=R_byTMZYoxw&t=89s . Motorized snow bikes are a new threat to wolverine persistence and should be analyzed. Heinemeyer 2019 found, "winter recreation should be considered when assessing wolverine habitat suitability, cumulative effects, and conservation (p 19)."

New trapping laws and extended trapping seasons combined with baiting and increased access will affect wolverine. Though trapping of wolverine is not legal in the state, non-target captures are common. Incidental capture in Montana included 5 wolverines from 2012 -2017 (Incidental Captures of Wildlife and Domestic Dogs in Montana 2012-2017, June 2018, page 5). That count was before the trapping season was extended in 2021 and trapping regulations were made more liberal on private lands, one can assume that more wolverines will be inadvertently caught in the project area. A wolverine was recently killed in a trap in the Lost Horse drainage.

Montana does not have a 24-hour mandatory trap check, so it is highly probable that incidental captures will result in mortality. Mowat et al 2019 found that "sub-adults were more vulnerable to trapping (p 19)." Younger wolverines are more likely to be the dispersers that ensure connectivity between isolated populations. And "Conservation risk from harvest [trapping] is high because wolverines occur in a discontinuous fashion at low densities and have few young, and reproduction is affected by environmental stochasticity (Persson 2005) (ibid p 10)." As the Horsefly ruling made clear, "If there is any doubt on this claim, institutionalized caution must be applied, and "the benefit of the doubt [must be given] to the species." *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988); *see also Swan View Coal. v. Barbouletos*, 2008 WL 5682094, at *15 (D. Mont. 2008)." It seems the WBA does not do err on the side of caution for wolverine. At this time, the Biological Opinion for wolverine (WBO) is not available. The WBO and all related documentation should be disclosed to the public before the Draft Decision Memo.

Project documentation found that the Amendment would have no effect on lynx. And the newest Species Status Assessment for Lynx (SSA) has found that there is no lynx habitat in the Bitterroot. This is not a sound conclusion. Please disclose all analysis of habitat that shows a lack of lynx habitat in the project area. Is this based on modelling? Occupied lynx habitat surround the BNF, and Saura et al 2014 found "the loss of intermediate and sufficiently large stepping-stone habitat patches can cause a sharp decline in the distance that can be traversed by species (critical spatial thresholds) that cannot be effectively compensated by other factors previously regarded as crucial for long-distance dispersal (p 143)." The BNF is essential to lynx as a stepping stone to other occupied habitat as well as a refuge from recreational use and forest management in occupied areas.

The idea that bull trout will not be affected by an increase in road building across the forest is incorrect. An increase in roads will increase sediment in critical bull trout habitat in the project area. It is concerning that proposed logging is in steep terrain and the possibility of a debris flow like the one in Willow Creek in 2018 as mentioned before. Please make it clear how the Amendment will ensure that debris flows and increased sediment in streams will not happen with an increase in roads, skid trails, and new feller buncher winching techniques on steep terrain.

Roads and thinning around white bark pine can increase beetle infestation. Please fully analyze and disclose affects to white bark pine.

The Amendment replaces clear standards with guidelines that are filled with loopholes. Guidelines do not protect wildlife or forest ecosystems in the same way as standards. Nor do they hold the BNF accountable for protecting resources and following forest plan guidelines. Please, if you are going to change these standards, replace them with equally strong standards.

I hope that you choose to abandon this Amendment and the site specific amendments and opt to revise the forest plan with the Lolo National Forest. Until thorough research is done, you should stop logging and thoroughly analyze the forest including baseline conditions which would consider CWD, snags, and old growth as well as the road system. This is what is long overdue in the Bitterroot. It is time. Stop rushing to destroy what we have left and take a hard look at what we have. Thanks very much for your time and consideration.

Sincerely,

Michele Dieterich

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