Amanda Milburn April 1, 2024

Plan Revision Team Leader

Forest Service Northern Region Ecosystem Planning

2880 Skyway Dr.

Helena, MT 59602

*Submitted via CARA:* <https://cara.fs2c.usda.gov/Public/CommentInput?project=62960>

Re: Revision of the Land Management Plan for the Lolo National Forest - Proposed Action (PA) Comments

Dear Revision Team,

Forest Plan Revision for the 1987 plan is long overdue. I am glad to see the forest undertaking it.

The impending revision has been discussed over the past 10 years at least. So, I am confused at the lack of specific monitoring information; specifically, population trends of sensitive and at-risk species, an inventory for old growth, and a detailed carbon assessment for the Lolo National Forest (LNF) that includes land management processes.

I am concerned that the PA is changing the rules in the Rattlesnake. The local public pushed to have that area protected and specified restrictions. Now the area is included in the “general forest” management area that allows logging and road building which were excluded from the Rattlesnake. This is an area dear to the hearts of folks in the Bitterroot and their wishes should be upheld in the PA. They are not.

I am concerned about the minimalist approach to Species of Conservation Concern (SCC). According to Species of Conservation Concern- plants (SCC Plants), The species evaluations in this document build upon the evaluations of potential SCC provided in the Lolo National Forest’s draft assessment that was issued in June of 2023. There, 180 plant species were considered for potential SCC status, of which 81 warranted in-depth evaluations based on the species of conservation concern identification process. Here, following public review of the draft assessment, a total of 211 plant species are considered in this document, of which 86 warranted an in-depth evaluation (p iii). The document explains the criteria used for the in-depth evaluation, but it does not explain how they reduced 180 plant species to 81 for evaluation. They do not explain what criteria caused them to then consider 211 plant species in the Revised Assessment (RA) or what criteria whittled those species down to 86. This elimination process must be disclosed to the public. The same is true for the final plant list. There is no explanation as to how they reduced the numbers for in-depth evaluation.

The SCC documents use lack of information to disqualify many species. How can there be a lack of information on population trends when the LNF has known this process was coming for over a decade. The documents only reference the most recent biennial monitoring report (2021). They do not use 37 years of programmatic monitoring required by the 1987 Forest Plan. Why is this information not included in the evaluation?

The SCC list should reflect species across a host of habitat types that would in turn promote ecosystem integrity and diversity. The final list of 10 plants and 6 animals is not adequate to address sufficient habitat types to sustain populations and promote diversity.

Old growth and mature forests are popular with the public, are home to myriad species, and store and sequester carbon on the forest. But only the fisher was selected to represent this habitat type. Old forests must supply a full range of the diversity of late seral and climax forest community types that make up the habitat for old growth dependent and associated species. Why wasn’t the marten, or the goshawk considered? What about species that are dependent on mature forests? Have you considered animals and plants that Coarse Woody Debris and snags associated with old growth like pileated woodpeckers and insects?

Mature snag forests are important to black-backed woodpeckers and three-toed woodpeckers as well as mountain bluebirds. Yet none of these birds are included. In fact, no migratory or resident birds are on the list except the harlequin duck that uses a very different habitat type.

Pollinators are essential to the integrity and sustainability of ecosystems. Yet, there are no pollinators like at risk bumblebees. Is habitat used by monarch butterflies represented by other SCC?

I am surprised that westslope cutthroat trout was eliminated from the SCC list. Its numbers are declining and only about 5% pure strain still exist in its range. Pearlshell mussels and harlequin ducks do not represent westslope cutthroat trout habitat across the forest.

Mycorrhizal fungi should also be considered for SCC status. Soil is the backbone of ecosystems and these fungi are essential to soil function and many species of trees and plants.

And what species are specific to bogs and fens? Bogs and fens and wetlands are integral to aquatic ecosystems. Why are no species being considered for this habitat type?

The EIS must consider the Lolo-Bitterroot Partnership: A Citizen Plan For Fish, Wildlife & Forests <https://montanaforestplan.org/images/citizen-forest-plan/Lolo-Bitterroot-Partnership-Plan.pdf> (Citizen Plan) in its entirety as an alternative. Over 14000 people have signed a petition in support of the Citizen Plan. 14,000 people want to see more wild and scenic rivers, more Wilderness designation, and more protections for wildlife and wildlife habitat and watersheds across the forest.

The Wild and Scenic rivers list in inadequate. It should include all the rivers in the Citizens Plan on the Lolo. The PA should provide timelines for assessments and steps to encourage their designation.

I am concerned that INFSH has been abandoned even though the RA claims that watershed conditions are improving due to conservation measures. Those conservation measures are INFSH. It should not be abandoned. It should be extended and expanded with more stringent restrictions because bull trout populations are still declining on the LNF. The RA also claims that watershed conditions have improved because land management has been reduced. But the PA calls for a “sustained yield limit of 144 MMBF (million board feet) per year.” Land management will increase almost threefold. How will this promote watershed health?

The Connectivity assessment is inadequate and fails to recognize the need to connect habitats especially for listed, candidate, and proposed species. For example, Lynx have not moved beyond the Seeley area even though the Northern Rockies Lynx Management Direction (NRLMD) has been used on the LNF since 2006. Like Canada lynx, grizzly bears and wolverine need unroaded mature forest habitat in all its stages. The EIS must assess how well connected these habitats are on the forest and how stressors like logging and roadbuilding could affect them.

Open motorized route density should be limited to 1mi/mi2 in connectivity areas that connect core habitat for grizzlies and those areas must expand beyond the nine-mile to the Bitterroot Ecosystem (BE). Grizzlies are moving into the area. They have been doing so for more than a decade. Yet, the Revision seems to discount their existence and the need to create linkage zones for the BE. Natural recovery for the BE is close, but measures must be taken to allow connectivity and movement from the NCDE and the CYE to the BE. Connecting these areas would also benefit lynx and wolverine. Preserving roadless areas would also benefit bull trout. Preserving the IRAs is essential to diversity and ecosystem integrity.

All Inventoried Roadless Areas (IRA) must be recommended for Wilderness designation. IRAs and the intact habitat they provide are essential to connectivity across the forest for multiple species. This designation is long overdue. The IRAs were inventoried for future designation as Wilderness. This seems to have been forgotten because they have been included in areas open to logging.

It is concerning that only 5 management areas (MA) have been proposed. It seems the only real multiple use is timber. Logging can happen on general forest, recreation areas and it seems eventually in Wilderness and Recommended Wilderness (RW). There needs to be more MAs with specific regulations and restrictions to preserve them for wildlife and ecosystem integrity.

Roadless areas must be part of RW. No question. If not, they should be their own management area with logging and road building restrictions.

White Bark Pine habitat should have its own MA. As should all listed, candidate, and proposed species habitat.

The latest USFWS SSA and addendum on lynx express uncertainty as to the efficacy of the NRLMD. But the PA suggests they will continue with NRLMD with no changes. The doubts to its efficacy and the lack of movement between habitats on the Lolo make it clear that more concessions must be made for lynx.

I am very concerned about old growth, especially a definition that seems to promote the minimum characteristics necessary rather than true, functioning old growth. According to the Lolo Biennial Monitoring and Evaluation Report 2021 shows a decrease in old growth by 18,000 acres. And the new plan only calls for 8 % old growth regardless of how many species are dependent on old growth forests. At this time there is no set definition of old growth. The glossary in the PA states:

**old growth forests** are ecosystems distinguished by old trees and related structural attributes. Old growth encompasses the later stages of stand development that typically differ from earlier stages in a variety of characteristics which may include tree size, accumulations of large dead woody material, number of canopy layers, species composition, and ecosystem function. **For the purposes of this document, old growth is defined as the minimum criteria established in Old Growth Forest Types of the Northern Region by Pat Green et al. 1992 (errata 2011) (citation provided in the final environmental impact statement bibliography) unless more current scientific information becomes available (emphasis added).**

It seems they are creating a moveable goal post for the definition of old growth which means little information as to how much is present on the forest and how it might be protected. It is important that the PA not log old growth period. The definition implies that it can be logged to minimum criteria and still be considered old growth according to Green et al 1993. Though Green et al seems to disagree:

1. Because of the great variation in old growth stand structures, no set of numbers can be relied upon to correctly classify every stand.
2. Do not accept or reject a stand as old growth based on the numbers alone; use the numbers as a guide.
3. 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. The associated structural characteristics may be useful in decision making in marginal cases, or in comparing relative resource values when making old growth evaluations (pp 11-12).

Sadly, what Green et al cautions against is exactly how the LNF is considering old growth, minimum criteria. It is also disconcerting to rewrite a forest plan without a firm definition of old growth that can be monitored with specific criteria used to identify old growth.

The LNF revision documents have a misguided of land management and fire and how they compare on the landscape and with wildlife. The LNF seems to equate land management activities with wildfire. Essentially the LNF thinks it can replicate the important disturbance of fire through land management activities. But Vanbianchi et al., 2017, who found, “Lynx used burned areas as early as 1 year postfire, which is much earlier than the 2–4 decades postfire previously thought for this predator (p 1).” And Holbrook 2018 found:

*Our analyses indicated that Canada lynx used treatments, but there was a consistent cost in that lynx use was low up to ∼10 years after all silvicultural actions. However, cumulative use (in both winter and summer) by lynx reached 50% at ∼20 years after a thinning treatment, whereas it took ∼34–40 years after a selection or regeneration cut. This indicated that Canada lynx used thinnings at a faster rate post-treatment than selection or regeneration cuts, and that lynx used selection and regeneration cuts in a similar fashion over time (p 114).*

These studies show that lynx avoid logged areas for as long as 34 years. And Holbrook considers thinning as the cutting of nothing greater than 10 inches dbh. The Pa must analyze the effects of logging on lynx and other species. It cannot assume that it can replicate wildfire. Wildfire needs to be a part of the landscape.

Carbon is seriously misrepresented when the PA and RA claim that carbon can be contained and stored in wood products. How many people know of a house older than 50 years that has not undergone serious renovation. Ingerson 2007 shows that only 1/5th of the carbon in logged trees even ends up in wood products (see the figure below from Ingerson 2007).



According to Smith et al 2019, only about 28% of a tree’s carbon is in the branches burned right after harvest. 53% is discarded as waste during the milling process. So 2/3rds of the tree is emitted in Greenhouse Gases when a tree is logged for timber.

Many studies have shown that logging emits a huge amount of carbon. The LNF must admit this and study carbon effects accordingly.

The recreation section does not consider electric bikes or assess effects from the growing industry of electric bikes. They must be considered motorized. There are plenty of opportunities for them to use motorized trails. They will add much more impact to non-motorized areas because they allow ease of access and more access.

The Great Burn should not allowed any motorized travel summer or winter. It must be Recommended Wilderness in its entirety. It should not be cut down the middle for motors. The LNF must discuss this discrepancy with the Nez Perce/Clearwater Forest that allows oversnow motorized travel up to the LNF border.

In general, the LNF must update its science and rethink its assumptions about carbon and logging and old growth.

The EIS must use the best available science and so far, the LNF is not recognizing the weight of available science in its revision documents.

Thanks for your time. I am truly concerned for old growth and old growth dependent species as well as those species that will be impacted by motorized travel and logging.

References Cited:

Holbrook, J.D., Squires, J.R., Bollenbacher, B., Graham, R., Olson, L.E., Hanvey, G., Jackson, S., Lawrence, R.L., 2018. Spatio-temporal responses of Canada lynx (*Lynx canadensis*) to silvicultural treatments in the Northern Rockies. U.S For. Ecol. Manage. 422, 114–124. <https://doi.org/10.1016/j.foreco.2018.04.018>.

Ingerson, Ann L. 2007. U.S. Forest Carbon and Climate Change. Washington, D.C.: The Wilderness Society.

Smith, Pete and Adams, Justin and Beerling, David J. and Beringer, Tim and Calvin, Katherine V. and Fuss, Sabine and Griscom, Bronson and Hagemann, Nikolas and Kammann, Claudia and Kraxner, Florian and Minx, Jan C. and Popp, Alexander and Renforth, Phil and Vicente Vicente, Jose Luis and Keesstra, Saskia, 2019, Land-Management Options for Greenhouse Gas Removal and Their Impacts on Ecosystem Services and the Sustainable Development Goals, Annual Review of Environment and Resources 2019, vol 44,pp 255-266 <https://doi.org/10.1146/annurev-environ-101718-033129>, https://www.annualreviews.org/content/journals/10.1146/annurev-environ-101718-033129

Vanbianchi, Carmen & Murphy, Melanie & Hodges, Karen. (2017). Canada lynx use of burned areas: Conservation implications of changing fire regimes. Ecology and Evolution. 7. 10.1002/ece3.2824.