

December 21, 2018

Swan Lake Ranger District
Attn: Rachael Feigley
Mid-Swan Project
24 Missoula Road
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**RE: COMMENTS ON THE MID-SWAN LANDSCAPE
RESTORATION AND WILDLAND URBAN INTERFACE
PROJECT PROPOSED ACTION**

Hello,

Native Ecosystems Council (NEC) and the Alliance for the Wild Rockies (AWR) would like to provide the following scoping comments on the proposed Mid-Swan Landscape Restoration and Wildland Urban Interface Project Proposed Action.

1. Violation of the National Environmental Policy Act

The scoping document does not provide any background or NEPA analysis/public involvement in regards to this change in the public involvement process regarding management of public forests. The Mid-Swan proposal is clearly a new process being implemented by the Forest Service. Yet there has been no NEPA completed for this significant change in the scope of the analysis and how this affects effective public involvement. This significant change is the scope of projects assessed as per the NEPA is a violation of the NEPA due to a lack of analysis of how this new procedure affects not only the level of analysis that can be completed, but as well, the level of public involvement that can be achieved. It seems like this process is an end-run around the public involvement process and an attempt by the Forest Service to shift from information-intense analysis required for site-specific projects to analyses, due to their large size, that produce very little site specific information for the public. This new process requires a NEPA analysis to determine if it violates the NEPA.

It is clear that the massive size of the Mid-Swan project area is roughly a 10-fold increase in the general project area size used by the Flathead National

Forest in the past. One can assume that this would require roughly a 10-fold increase in the size of the draft environmental impact statement (DEIS) released for public review, if past accepted levels of information and data are still included. This means that the DEIS will be thousands of pages long. There is no way the public should be expected to review and provide reasonable comments on such a massive document. In addition, the public cannot be reasonably expected to make field reviews on 174,000 acres where treatments will be proposed. As well, it is not clear how the agency will have the required increase in human-power in order to get the required analyses of both existing and planned conditions for the various resources that occur in the project area. Will there be a 10-fold increase in agency personnel to ensure that reasonable data is gathered? For example, how will the required wildlife surveys be done for this project, without huge increases in wildlife personnel? Will there be adequate surveys for old growth and snag habitat on 174,000 acres with existing personnel?

Another example of how this new process for implementing logging projects is an end-run around the NEPA relates to the 5-year period for NEPA decision. NEPA documents become stale after 5 years, so a NEPA document expected to cover a 30-year time period would be a NEPA violation. It appears that the agency is attempting to shield logging project from such things as new court opinions by illegally extending the time period over which decision can apply. Or there may be new wildlife species listed as per the Endangered Species Act (ESA), or new science on listed species that need to be considered in project activities. Also, ongoing Forest Plan monitoring may identify previously unknown adverse impacts to forest wildlife species, impacts that will need to be addressed in a timely manner. Or landscape conditions may be altered by natural processes such as fire to the extent that Forest Plan standards cannot be met if the project continues. This could include the loss of dense mature forest habitat for the lynx, or the loss of secure habitat for elk.

Unless the Forest Service can implement a project in a timely manner as per the NEPA, it is violating the law. A good example of this is the Mid-Swan project.

2. Adherence to the ESA by using the current best science.

a. The proposed action must address the current population trend of lynx.

Please provide the current best science defining the current population status of lynx in this landscape. Without this information, there is no basis for measuring how the proposed loss of lynx habitat will impact their viability in what is currently believed to be the best lynx population in Montana. If the lynx population declines in this project area of 246,000 acres total, and 174,000 acres of Forest Service, what will be the basis for claiming this project will not promote extinction of lynx in Montana? Forest Service lands may provide home ranges for 13 lynx, given the median home range size of a female lynx is 13,440 acres. How will the degradation of these 13 potential home ranges affect the lynx population in Montana? Please provide an analysis of how this will be measured.

In this analysis, please include intermingled land ownerships including private and various state lands. The cumulative impact of timber management across various ownerships is relevant to lynx conservation on Forest Service lands.

b. The proposed project must define current lynx habitat quality by watershed by the current best science.

There are 16 watersheds in the project area. Please provide a map and tabular analysis of lynx habitat based on the current best science per watershed as follows:

b1. Acres, percent of watershed, and map of open areas; includes stand initiation, areas with recent disturbance or 5 years or less, which have no trees, low horizontal cover, and a low density of snowshoe hares (Kosterman et al. 2018 Table 1); stand initiation treatments 0-8 years after treatment with few large trees remaining (Holbrook et al. 2018).

b2. Percent and map of sparse forests: these are defined as forests with less than a 40% canopy cover (Holbrook et al. 2017a); they average 28% canopy cover, and a basal area average of 40 square feet per acre (Holbrook et al. 2017b Table 2); naturally sparsely stocked or mechanically thinned stand with a discontinuous canopy and a visible forest floor, low horizontal, and a low density of snowshoe hares (Kosterman et al. 2018); generally 9-25 years after modification.

b3. Percent of advanced regeneration of age 25-40 years; canopy cover average 45%, median basal area of 59 square feet per acre (Holbrook

et al. 2017a Table 2). These have been further split into 2 categories, small dbh regeneration (4-6 inches dbh) with an intermediate canopy cover and high horizontal cover, capable of producing high density of snowshoe hares over a limited time frame, but hares are potentially difficult to access and kill for lynx because of high stem densities; and median dbh regenerating forest (6-8 inch dbh) with a continuous canopy and high horizontal cover, capable of producing high density of snowshoe hares over a limited time frame, but hares are somewhat accessible because of intermediate stem densities (Kosterman et al. 2018 Table 1); advanced regenerating forests generally 25-40 years old with dense horizontal and vertical cover (Holbrook et al. 2018).

b4. Mature forest defined as mid-seral stands over 40 years old in a multistoried structure with a mixed species composition, median tree size 10 inches dbh, median canopy of 56%, median basal area of 140 square feet per acre (Holbrook et al. 2017a Table 2); Also defined as median dbh of 10 inches, substantial understory, high horizontal cover, continuous canopy and no evidence of recent disturbance, and capable of producing medium density of snowshoe hares over a long time frame, and kill rates are higher for lynx because stem densities are lower than regenerating classes (Kosterman et al. 2018 Table 1); multi-storied stands generally over 40-50 years old with dense horizontal and vertical cover (Holbrook et al. 2018).

c. The proposed project needs to define lynx habitat quality in each watershed based on comparison to conditions in lynx home ranges that produce kittens based in Holbrook et al. 2017b and Kosterman et al. 2018:

- c1. 49% mature
- c2. 13% small dbh regenerating forest
- c3. 24% medium dbh regenerating forest
- c4. 4% open
- c5. 10% sparse

Please define acres and location of these 5 lynx habitat features (mapped) for each watershed.

d. The proposed project needs to define the cumulative time period per watershed (treatment type and recovery period per treatment type) required to reestablish significant lynx use again, or

50%), mapped and quantified per watershed, based on the following documented recovery periods in Holbrook et al 2018:

d1. Little use by lynx up to 10 years since treatment for all treatment types. Please summarize and map for each watershed for all such areas where lynx use will be essentially nonexistent for all treatments.

d2. Forest thinning, including improvement cuts and precommercial thinnings, rated as least severe treatments, reached 50% lynx use 20 years since treatment both winter and summer. Please provide a summary for each watershed of all treatment units (acres) where lynx use will be significant reduced (less than 50% cumulative use) for 20 years after treatment.

d3. Selection cuts, including group selection and liberation cuts, as medium severity impacts, reached 50% lynx use 39 years after treatment in winter, 41 years after treatment in summer. Please provide a summary for each watershed of all treatment units in acres where lynx use will be significantly reduced (less than 50% cumulative use) for 40 years after treatment.

d4. Regeneration cuts, clearcutting, the most severe treatments, reached 50% lynx use 34 years since treatment in winter and summer. Please summarize in acres, and map, those treatment units per watershed that will not have significant lynx use (50% cumulative use) until 34 years post-treatment.

f. The proposed project needs to estimate the reduction of snowshoe hares per treatment type per watershed.

f1. Reducing lodgepole pine, subalpine fir and Engelman spruce in both the canopy and understory causes a direct loss of snowshoe hares. Holbrook et al. (2017a) through a huge landscape monitoring project on hare abundance, a study that includes the Mid-Swan landscape, documented past research demonstrating that snowshoe hare densities are directly related to understory and overstory cover in forest stands of mixed conifer stands including lodgepole pine, subalpine fir, and Engelman spruce. Please provide a summary of acres within each watershed where snowshoe hare populations will be reduced as a result of all treatments, including prescribed fire, and provide a summary of the cumulative acreage reduction of snowshoe hare habitat per watershed per proposed alternative.

f2. Please identify the acres, as well as with mapping, of the current optimum snowshoe hare habitat provided by mature mixed conifer stands of lodgepole pine, subalpine fir and spruce [due to the location of high nutritional values provided by lodgepole pine and the high cover qualities provided by subalpine fir and spruce, as per Holbrook et al. (2017a)], as well as the acreage of such planned for each watershed for each alternative.

f3. Please quantify how management of critical lynx habitat to reduce insect infestations (e.g., mountain pine beetle) is a long-term adverse impact on lynx. Holbrook et al. (2017a) noted that disturbances in mixed conifer forests, including by pine beetles, will benefit snowshoe hares by increasing the mixture of forage (lodgepole pine) and cover (subalpine fir and spruce).

3. Please address the key factor of 'adjacency' for young regenerating forests and mature forests for lynx foraging.

The impact of large harvest units on lynx habitat quality needs to be fully disclosed and evaluated per watershed in the upcoming analysis. It has become increasingly evident that large treatment units are highly detrimental to lynx. The best foraging habitat for lynx is the edge between younger regenerating forests and mature forests. This demonstrates that large openings/treatment units are a negative impact on lynx. Please address how the proposed size of treatment units affects the adjacency benefits of lynx habitat.

4. Violation of the Forest Plan Lynx Amendment direction ALL S1.

It is not clear how the proposed project can maintain lynx habitat connectivity within each watershed as is required Forest Plan direction. Even though the Forest Service claims that Standard ALL S1 does not prevent a reduction in connectivity, it must be maintained at a reasonable level to promote lynx use. Current science demonstrates that the best lynx habitat measured by production of kittens contains 86% habitat connectivity, including 49% mature forest, 24% mid-sized regenerating forest, and 13% small-sized regenerating forest. The habitat types avoided by lynx were only 4% (open) and 10% (sparse forest) in these home ranges. The agency needs to define what the current level of habitat connectivity is for lynx in each watershed, as well as how this compares to optimal levels. The agency also

needs to define when connectivity is reduced to a level that significantly impairs lynx habitat use. If this level is not maintained in each watershed, then the Forest Plan direction will be violated.

5. Violation of the ESA by using outdated science and unverified conservation measures to promote lynx viability in Montana.

a. The agency needs to provide documentation that the Lynx Amendment is not needed for conservation of the lynx.

The scoping notice notes that a Forest Plan amendment will be required for 2 of the Lynx Amendment standards, for precommercial thinning and maintaining multi-story forests, for 13 home ranges of lynx that occur on Forest Service lands in the project area. Amending the Lynx Amendment without any actual monitoring data that this direction is conserving lynx is arbitrary. If the current direction is not achieving expected results, how can exemption of this same direction be considered a valid conservation approach for a threatened species?

b. If the agency is going to start exempting projects from the Lynx Amendment as an agency practice, new consultation with the USFWS is required.

The new agency practice of exempting projects from the Lynx Amendment indicates that a new biological opinion and incidental take statement is required at the Forest level, since this is a significant change from the biological opinion provided for the Lynx Amendment in 2007. Once a new biological opinion is completed for the Forest, then an additional site-specific consultation would also be required.

c. Amending the Northern Rockies Lynx Management Direction for 13 lynx home ranges requires a separate stand-alone EIS.

Please complete the required individual NEPA analysis for the proposed exemptions of this project from the Lynx Amendment. This NEPA analysis needs to include a range of alternatives, as well as an thorough analysis of what the impacts of the proposed exemptions will be based on the current best science.

6. Violation of the ESA by using outdated science to conserve the threatened Canada lynx.

There is an abundance of new science that demonstrates that the Lynx Amendment is severely outdated in regards to known conservation measures needed for lynx. There is also no documentation that the Lynx Amendment is functioning to conserve lynx, after being implemented for 11 years. Management of lynx habitat that results in degradation, such as the Mid-Swan project, should not move forward until a new conservation strategy for lynx has been developed based on the current best science. Continued use of the Lynx Amendment may be putting the lynx population in Montana in jeopardy by progressive degradation of forest habitat across occupied lynx habitat, including critical habitat. The new science provides huge questions about the 2007 Biological Opinion for the Lynx Amendment, and clearly needs to be revisited.

7. Please provide a valid analysis of project impacts on the wolverine as is required by the NEPA, the NFMA, and the ESA.

We fully expect the agency to claim that wolverine will not be impacted by this project because they only use high elevation areas in wilderness, although the project does propose extensive burning in wilderness. The Forest Service needs to provide a valid analysis of project impacts on the wolverine based on the current best science. This analysis needs to disclose that this project is just another program of extinction of the wolverine, and that the agency has no intention of conserving the wolverine. In the analysis, please reference some of the newest science on wolverine, including Scrafford and Boyce 2018, Kuglin 2018, Scrafford et al. 2018, Gehman et al. 2014, Stewart et al. 2016, and Fisher et al. 2013. These current published articles and/or monitoring reports on wolverine demonstrate that mid- to low elevation forests are essential for wolverine preservation, including big game winter ranges. These articles also note that the wolverine is highly sensitive to the "human footprint," and that industrial development of landscapes, along with the required roads, are a severe detrimental impact on wolverine. The Mid-Swan project will have severe long-term impacts on the wolverine, and this needs to be fully disclosed to the public instead of white-washed.

Also, the Flathead National Forest does not currently have a Forest biological assessment for the wolverine. As a proposed species for listing, a Forest biological assessment needs to be done. As well, given the huge adverse impacts the Mid-Swan project will have on wolverine, this will require a site-specific BA.

In the upcoming analysis, please identify the conservation strategy for wolverine by watershed, including open and total road density, snowshoe hare habitat, and management of big game winter range. Please map all the big game winter range per watershed, define what the habitat objectives are for these winter ranges for hiding and thermal cover, and define how accessible these winter ranges are to wolverine in the winter/spring. Also please include the science and/or monitoring that demonstrates burning wolverine habitat in wilderness/roadless lands has been shown to benefit this species.

8. Providing the available data to the public in regards to wolverine and lynx locations in the project area.

We are requesting that the Forest Service provide good high quality maps for each watershed that display the known locations of wolverine and lynx. These known locations are likely extensive, given the monitoring for the Crown of the Continent and radio-telemetry studies of lynx by the Forest Service research branch in Missoula. This information will promote the public understanding of how these forests are currently being used by these declining species.

9. Providing high quality information on old growth habitat in the project area.

We are requesting that the agency provide high quality data on old growth for each watershed, including what type of cover type the old growth is, the acres, and as well, a map showing the location of these stands per watershed. If the agency has monitoring data that shows that old growth values for all wildlife will be maintained with logging, please provide the references so the public can review these. Please clearly define the agency's old growth strategy per watershed, including Forest Plan direction. Please define what monitoring has been done for old growth management indicator species, and how this monitoring will be used for this current project. Also, please

address how various tree species provide a continuum of old growth over time due to different forest characteristics. For example, lodgepole pine provides essential old growth habitat due to pine beetles much earlier than other tree species, and thus is key to management of old growth on a landscape.

There are particular concerns in recent years about the dwindling moose populations. Moose is heavily dependent upon old growth forests, especially those with a subalpine fir understory that provides key winter browse. Please map the moose winter ranges by watershed in the analysis area. If there is data available that indicates that logging old growth will promote moose winter range, please provide the references. What are the objectives for moose winter range as per old growth/thermal cover, and if there are none, how can this species be managed?

10. Provide a thorough summary of existing snag habitat per watershed, as well as how this current level and planned level of snag habitat addresses viability of wildlife as per the current best science.

There are no valid snag management strategies on any forest in Region 1, including the Flathead National Forest. The outdated snag management strategy/standards for the Flathead need to be identified for what they are: a convenient way to avoid actually managing for viable populations of over a third of the forest wildlife that depend on snags. For example, the current best science requires that snags be maintain WITHIN forest stands, not just in logged areas. The current best science demonstrates that only 4% of snag habitat is suitable for cavity construction. This in turn demonstrates that pine beetles provide an essential function for wildlife needing snags, as well as coarse woody debris as the pine marten. And to date, no National Forest in Region 1, including the Flathead, has demonstrated that snag recruitment will ever approach natural levels again in treated areas, including clearcuts. We are tired of seeing unrealistic claims that a few thinned trees will maintain historic snag levels. The long-term adverse impacts of timber management on snag habitat and associated populations needs to be fully disclosed to the public in this NEPA document.

11. Please evaluate how this project will impact the displacement of elk from public to private lands and thus reduce recreational hunting opportunity on public lands.

The displacement of elk from public to private lands due to logging and associated roads, or the loss of elk security, is a well-accepted problem in Montana. Please provide a thorough analysis of how past activities in this project area, as well as planned actions, will impact the elk displacement level. And please provide a tabular acreage of elk security areas per watershed on the complete definition of the Hillis Paradigm, whereby security requires contiguous forest cover. This security habitat needs to be clearly mapped per watershed at existing and planned levels, so that the public can have a clear understanding of how elk security is being managed in this landscape. These maps need to clearly display all roads, both existing and planned.

12. Please evaluate how open motorized route densities will impact habitat effectiveness for wildlife during project activities, and how hiding cover will be impacted by the project.

Please use the current best science for measuring habitat effectiveness of motorized routes on wildlife, as per Lyon's research. If the agency has data that shows that logging traffic does not displace wildlife, including elk, this needs to be included in the analysis, and referenced. For each watershed, please provide a good-quality map that show all the roads that will have motorized activity during project implementation. Please include a tabular summary of the mileage of various types of roads, along with identifying the acreage of each watershed, so that the public can verify what the habitat effectiveness is now and with project implementation.

Also, please identify per watershed what the existing levels of hiding and thermal cover are, and what these will be after treatments are implemented. In the past, we have seen various claims that logged habitat remains as hiding cover if the canopy cover is 40% or greater. If this claim is going to be used in this project analysis, please provide an appendix that documents the research processes that were used to arrive at this finding. It seems highly unlikely that removing the understory of subalpine fir, spruce and other tree species in treated stands will maintain hiding cover, which

requires concealment of 90% of an elk within 200 feet. Maybe the agency could provide photos to indicate how a 40% canopy achieves this level of concealment (90%) of an elk within 200 feet.


13. Prescribed burning in the wilderness.

It is not clear from the scoping notice why extensive stands of homogenous forests at higher elevations causes a lack of habitat diversity. Please provide the specific rationale in regards to wildlife, including the wolverine, lynx and grizzly bear, as to why burning up forests in the wilderness will promote and benefit these species by increasing habitat diversity. The definition of habitat diversity also needs to be defined, as it is not clear what is exactly meant by diversity, or how it is being measured. If the agency is going to claim that a specific action increases habitat diversity, the criteria for diversity need to be provided and referenced with current science. Also please provide any current science that demonstrates that any wildlife population increases with prescribed burning of forests at high elevations.

Regards,



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