

Paul Sieracki, MS



Dec 3, 2021

District Ranger Newport/Sullivan Lake, RD, Colville National Forests,

RE: Comments for the Sweet Ione dEA.

Introduction.

Please incorporate the applicable science from the Boulder-Park EA comment letter (following these comments) from myself and AWR. with special attention to the introduction. An objective of Scoping is to actually consider and apply science that not only supports the project but science that may point the project in a different direction. Apparently the Colville National Forest just uses Scoping and dEA comments to build a legal defense and not change units or roads. A significant change has never been done in response to comments in recent CNF history. I have decided to approach commenting in a new way because of the lack of response to the public's comments from the US Forest Service. Why spend hours looking at gis, doing analysis and researching if the USFS only uses this information as a hint as to how to protect the sale from litigation.

Please note that I also support the dEA comments submitted by AWR.

Some important key comments to add to the Boulder-Park science follow:

- Map all old growth stands in the area.
- Do not log in moist site old growth stands.
- Use fire or very light thinning of younger trees for dry site old growth stands.
- Develop additional dry site stands to allow for a large proportion of the dry site habitats to become suitable for dry site bird species.. white-headed woodpecker, flammulated owl (nests in dry sites over 4000' in elevation), pygmy and white-breasted nuthatches, etc.
- Do not do spring underburns in suitable flammulated owl habitat.
- Select enough capable and suitable habitat for fisher to live and breed in the area, when they are reintroduced. (Capable habitat means stands that would grow into suitable fisher habitat).
- For regenerated plantations in potential (capable) fisher habitat, manage the young stand to provide for snowshoe hare prey, similar to the lynx management plan.
- Implement an area closure on trapping all animals (this has been done by the USFS) to allow for repopulation of the area by fisher and other furbearers and to reduce the risk of harm to wolves.
- Do not log in lynx habitat as it is under pressure from global warming.
- Identify fire refugia through modeling.
- Allocate recruitment stands for moist site old growth in these areas.
- Construct no roads or skid trails through recruitment or existing old growth.
- Eliminate any allotments in the area. Cattle and other livestock have the most biomass of terrestrial mammals on the planet. This is alarming and incredibly destructive to the environment and our climate.
- Do not do "feel good" logging in RHCA's, or disguise logging as means for achieving a conservation objective.

- Analyze in detail the existing and alternative conditions to surrogate and sensitive species.
- Attempt (and I mean succeed) in obtaining that small parcel of land in the proposed Abercrombie wilderness area and restore the access road.
- Introduce bull trout in the critical habitat. The Kalispel Tribe is currently penning cutthroat trout in Indian Creek with hopes that they may spawn and return to that creek. Would that method work also for Bull Trout?
- Map existing beaver colonies including bank denning beavers.
- Incorporate an area closure for trapping beaver. Yes the USFS can and is doing this in other areas for other species, despite the CNF's denial of this.
- Reduce total road density to as close or below 0.6 kilometers per square kilometer to maintain functional large carnivore habitat.
- Do not log in existing roadless areas or previously virgin (unlogged) areas of the project to protect biodiversity.
- Consider controlled burning in the roadless areas, avoiding areas with old growth.
- Please do not schedule activities within 1 mile of grizzly denning habitat.
- Please assess connectivity between the project area and the Selkirk Grizzly Recovery Zone.
- Please designate the area as important for grizzly bear and delineate GBMU's.
- Assess the cedar grove recently found for inclusion into an ancient forest successional stage category.
- Amend the Forest Plan to incorporate both old growth and ancient forest stages.
- Provide for recent burn forest habitat in areas allocated for timber production. Either burn an area or log 1/3 or the crown and torch the rest. (proportions are guesses).
- Clearcuts, seed trees and shelterwood cuts are not co equivalents of burn habitats.
- Eliminate the use of logging collaboratives. These groups have a resource extraction bias. Logging is NOT a tool for moist site restoration. Thanks to the action of logging collaboratives, the CNF Forest Plan is awful and directed totally towards logging and roadbuilding.
- Please involve all interested public's in the IDT discussions, not just the logging collaborative.
- Please use all science and complete analysis in a spatially explicit and quantitative manner. The use of terms like "plenty" of habitat as a substitute for quantitative analysis is unprofessional.
- Under no circumstances poison ground squirrels or other species to assist with tree regeneration. These poisons biologically magnify and cause mortality to carnivores further up the food chain.
- I need not mention the drastic effects that global heating and subsequent climate chaos that is about to overtake even the somewhat protected inland temperate rainforest that the project area is in. This will occur just after the first blue ocean event and sooner than later. Be scared.
- Please designate 25-30% of the project area for recruitment old growth that is not harmed by the false claim that logging can speed up the development of old growth. Pay special attention to locations called cove forests, in the cedar-hemlock zone for designation of recruitment of that habitat series.
- The author has attended a field trip with the USFS and has visited the cedar hemlock old growth stands up Cedar Creek. These are documented on iNaturalist and can be accessed there. Two large diameter trees are shown below.

Sincerely,
Paul Sieracki,
Geospatial Analyst/Wildlife Biologist.

<https://www.inaturalist.org/observations/61775783>



<https://www.inaturalist.org/observations/61775747>



Comments for the Boulder Park EA from Paul Sieracki and Alliance for the Wild Rockies.

Introduction.

There is little difference, if any, between the alternative proposed in the Scoping Notice to the draft proposed action in the Boulder-Park EA. These comments incorporate the author's (Paul Sieracki) Scoping Notice comments (Attached) and comments for the embedded Packer Meadow Riparian Pasture and Meadow "Enhancement" project. Additional comments are below, the issues brought up in the Scoping Notice are not addressed in the EA. There are numerous violations of NEPA especially the lack of cumulative effects analysis and erroneous application of research paper recommendations.

NEPA's objectives are (1) to ensure that agencies take a "hard look" at every significant aspect of the environmental impact of a proposed action, and (2) to guarantee that relevant information is available to the public to promote well-informed public participation. "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." 40 C.F.R. § 1500.1(b) . An agency cannot take any action or make any commitment of resources before making its final decision that would have an adverse environmental impact or prejudice or limit the choice of reasonable alternatives .

This comment letter demonstrates that, if implemented, the decision would have an adverse environmental impact and that Extraordinary Circumstances would exist. Significant impacts to the sensitive Northern Goshawk will occur from logging and implementation of the HRV concept within nesting territories. Because of global heating and the high risk of eliminating subalpine habitats from logging, using the Canada lynx management guidelines may negatively impact the ESA listed lynx , wolverine and other associated species of boreal habitats. Clearly because of the significant impact to the environment an EIS has to be prepared.

Some major issues include not developing the promised HRV for old growth, lack of cumulative effects to northern goshawk habitat, lack of surveys for other raptors and the *glaring lack of analysis of fisher habitat* because it was delisted from sensitive species consideration due to it's impact on timber outputs. The author is more than willing to do a field visit to confirm old growth or to field review any other issue the USFS has questions about.

Logging and road building are not ecosystem restoration.

It is extremely offensive that the Forest Service (FS) refers to this massive timber sale proposal as "ecological restoration." True restoration of already heavily logged and roaded watersheds would prioritize removing the impediments to natural recovery. The Montana Forest Restoration Committee adopted 13 Principles, written collaboratively by a diverse set of stakeholders which included two national forest supervisors along with representatives from timber and forest products industries, conservation groups, recreation interests, and others.

Principle #3 states:

*"Use the appropriate scale of integrated analysis to prioritize and design restoration activities: Use landscape, watershed and project level ecosystem analysis in both prioritization and design of projects unless a compelling reason to omit a level of analysis is present. While economic feasibility is essential to project implementation, **priorities should be based on ecological considerations and not be influenced by funding projections.**" (Emphases added.)*

Consistent with this principle, **the FS would first publish a landscape assessment** so a genuine public scoping process could help determine project priorities. Instead, the FS promoted Congress's ill-informed priorities for this project area (logging) to subsidize narrow financial interests. Concerns for such important issues as maintaining and restoring wildlife and fish populations, habitat security, water quality, and soil productivity have not been properly considered.

We support some of the actions proposed, specifically those reducing road density and restoring aquatic habitat and watersheds. We request the FS take a more comprehensive approach to restoring aquatic habitat and watersheds than is included in the PA. **Please include and fully analyze an alternative that results in a road system which is fully affordable to maintain on an annual basis, within all of the watersheds affected by the proposal.** Please use expected appropriations as the yardstick to measure "affordable", based on recent years' funding levels.

The actions needed to reduce the road system to this affordable level need not themselves be within expected budgets. Indeed, few restoration projects proposed or implemented by the FS are fully funded by appropriated dollars. Figuring out a way to fund road decommissioning would follow from a Decision to implement it. That would be a way to truly collaborate.

In analyzing such an alternative, it may turn out that some of the road work mentioned in the PA would be unnecessary or would be modified. For example, some roads proposed for maintenance or upgrading may not be affordable to maintain, or may be located where chronic sedimentation into streams persists. In such cases consideration of highest restoration priorities would require full road obliteration.

Such an alternative would reduce the road network in the project area watersheds consistent

with the forest plan and with best available science for maintaining robust populations of native fish.

By reducing the footprint of roads, such an alternative would reduce the spread of noxious weeds and their associated costs and environmental damage.

Such an alternative would be in compliance with the Travel Management Rule Subpart A, which requires the FS to involve the public while conducting a science-based analysis to identify the minimum road system needed to manage the Forest ecologically sustainably and within expected budgets. This alternative would be consistent with Montana Forest Restoration Committee Principle #13, which is to "Establish and maintain a safe road and trail system that is ecologically sustainable."

Such an alternative would fully decommission/obliterate the entire length of unauthorized ATV/OHV routes on national forest land in the project area to restore hydrologic functioning and soil productivity, reduce spread of noxious weeds, and promote ecosystem integrity.

Such an alternative would not construct any new roads, including temporary roads. The FS is aware that temporary roads potentially create much of the same impact as system roads.

Such an alternative would maximize the short-term sequestration of carbon in the forest, because already dangerously elevated greenhouse gases are an immediate issue that must be addressed.

MA1 – 30 years of false narrative.

The New Forest Plan eliminated MA1 which was designed to maintain late seral species and their habitat, negating the claims by the USFS that population viability will be retained over time. This was the the purpose of these areas. These areas will be opened up for logging in future timber sales under the new Forest Plan, likely within a 10 year time frame.

1.3 Management Direction The Colville National Forest Land and Resource Management Plan (forest plan) as amended is the guiding management direction for the Boulder Park Ecological Restoration Project. This EA incorporates the forest plan by reference and is tiered to the forest plan's final environmental impact statement (USDA Forest Service 1988). (Boulder Park EA, p 4)

The new Colville Forest Plan eliminates this designation. All past population viability analysis based on the old Forest Plan *including this EA* are invalidated because timber sales can now log in the old MA1 under the guise of "restoration" and impacting the MIS species they were designed to provide viable populations for.

The EA does not site specifically analyze the negative effects of logging on carbon storage.

We are in a global ecological crisis, and the Colville National Forest is NOT doing its part curtailing logging to provide for carbon sequestration. Even burned or insect killed snag forests retain a substantial amount of carbon when compared to logging operations. Fixing carbon has to be the purpose and need of this project because of the global heating emergency.

"But the promotion of logging to supposedly curb carbon emissions is just part of the Administration's ongoing alignment with industry and troubling pattern of climate science denial. Carbon emissions from logging in the US are ten times higher than the combined emissions from wildland fire and tree mortality from native bark beetles. Fire only consumes a minor percentage of forest carbon, while improving availability of key nutrients and stimulating rapid forest regeneration. Within a decade after fire, more carbon has been pulled out of the atmosphere than was emitted. When trees die from drought and native bark beetles, no carbon is consumed or emitted initially, and carbon emissions from decay are extremely small, and slow, while decaying wood helps keeps soils productive, which enhances carbon sequestration capacity over time.

On the other hand, industrial logging — even when conducted under the euphemism of "thinning" — results in a large net loss of forest carbon storage, and a substantial overall increase in carbon emissions that can take decades, if not a century, to recapture with regrowth. Logging also tends to make fires burn faster and more intensely while degrading a forest ecosystem's ability to provide natural protections against extreme weather events.

Consider this: About 28 percent of tree carbon is contained in branches, and this is emitted when they are burned after logging operations. An additional 53 percent of the carbon in trees removed from forests is emitted as waste in the manufacturing and milling process. Overall, about two-thirds of the carbon in trees that are logged for lumber quickly become greenhouse gas emissions." Smith, Dr. Hanson and Kohler. 2019.

<https://www.counterpunch.org/2019/04/10/logging-is-the-lead-driver-of-carbon-emissions-from-us-forests/>

and from an Oregon report:

"Based on credible evidence today, forest harvest does not appear to result in net carbon conservation when compared to carbon retention in unharvested forests.

The evidence is that significant amounts of carbon are lost at each stage in timber harvest and processing into wood products, and in decomposition at the end of useful product life. Meanwhile, trees remaining in forests are actively withdrawing carbon from the atmosphere. The forest stores and conserves carbon more effectively and for longer periods of time than do most products derived from harvested trees." OGWC – 2018 Forest Carbon Accounting Project Report Page 5 retrieved from <https://www.keeporegoncool.org/forest-carbon>

Hanson, 2010 addresses some of the false notions often misrepresented as "best science" by

agencies, extractive industries and the politicians they've bought:

"Our forests are functioning as carbon sinks (net sequestration) where logging has been reduced or halted, and wildland fire helps maintain high productivity and carbon storage. Even large, intense fires consume less than 3% of the biomass in live trees, and carbon emissions from forest fires is only tiny fraction of the amount resulting from fossil fuel consumption (even these emissions are balanced by carbon uptake from forest growth and regeneration).

"Thinning" operations for lumber or biofuels do not increase carbon storage but, rather, reduce it, and thinning designed to curb fires further threatens imperiled wildlife species that depend upon post-fire habitat."

Boulder Park EA is located in the inland temperate rainforest, is part of the Selkirk Ecosystem and is ecologically similar to the west wide forests in moist sites. Clearly, logging is not the best way to provide for carbon storage desperately needed in this planetary emergency.

Creating plantations by regeneration logging is not "forest or ecosystem restoration" as claimed by the attempt of the USFS to control the narrative.

"Lead author, Professor of Global Change Science, Simon Lewis (UCL Geography) said, "There is a scandal here. To most people forest restoration means bringing back natural forests, but policy makers are calling vast monocultures 'forest restoration'. And worse, the advertised climate benefits are absent." https://phys.org/news/2019-04-natural-forests-global-climate-goals.html?fbclid=IwAR04z2DKRheo-7WMRlrOb0dHinvkwkCjYid3_WEvTunWTtEGWpeNRSPtmlo

Please develop an alternative reflective of supporting carbon storage, wildlife and fisheries, not converting native stands to industrial plantations like the current alternative is doing.

PNW climate projections are high risk to Spruce - Fir Forests.

The commentators must repeatedly state to the USFS that subalpine habitats area under extreme risk of change from global heating. Actions must be taken to preserve these habitats, **meaning no logging in Spruce-Fir even if it violates directions for Canada lynx in non critical habitat with the exception of daylighting whitebark pine.**

"Subalpine forests and alpine ecosystems are especially at risk and may undergo almost complete conversion to other vegetation types by the 2080s (A2 and B1;104 A2;105 Ensemble A2, B1, B2;106)." Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., 2014

Northern Goshawk

The proposed action does not meet 1988 Forest Plan Standards

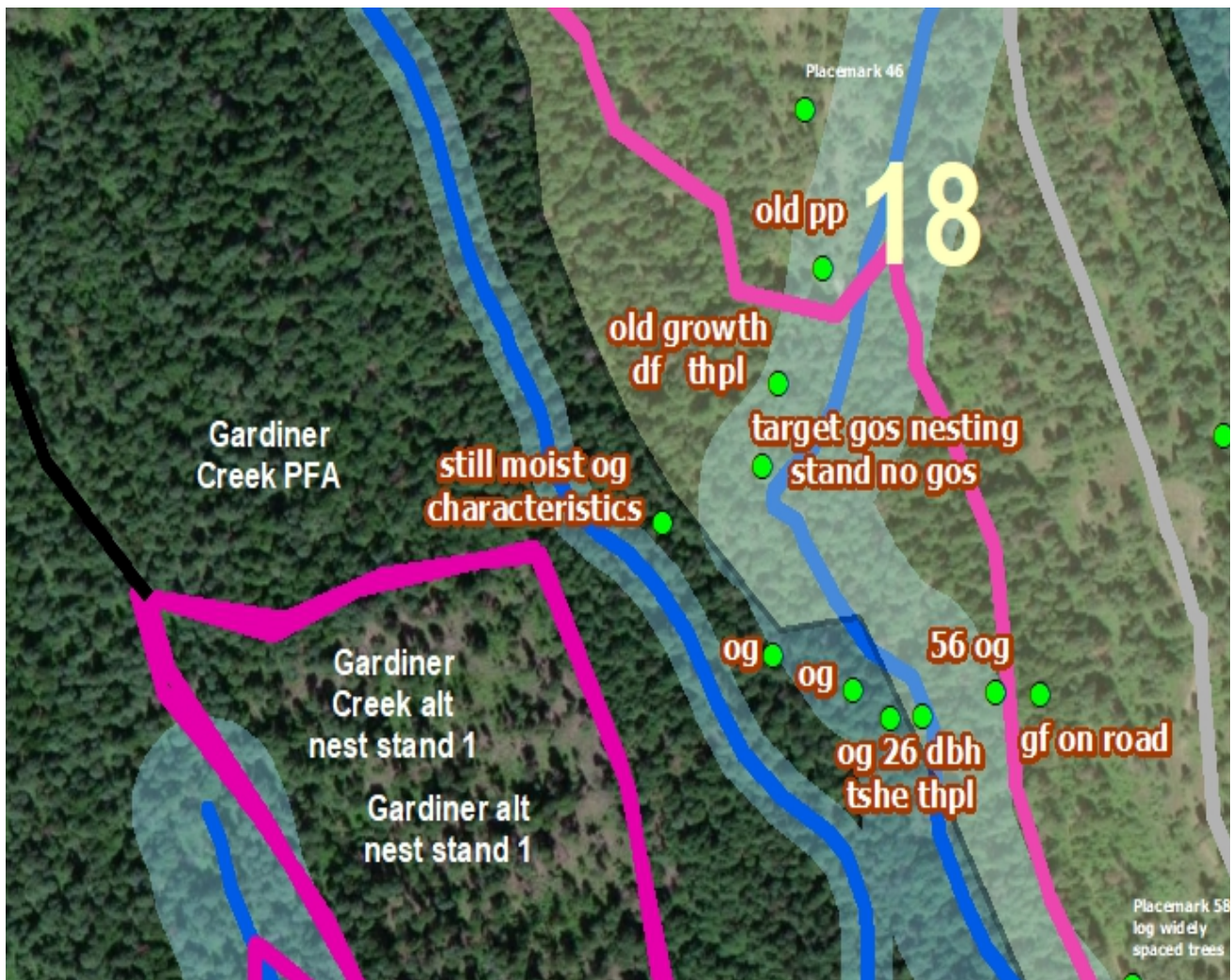
NFMA requires the Forest Service to ensure that site-specific management projects are consistent with the applicable forest plan. 16 U.S.C. § 1604(i). The Agencies must ensure that all aspects of the proposed action comply with the Colville National Forest Land Management Plan. This EA was produced under the directions of the Colville 1988 Forest Plan and Eastside Screens. The USFS attempts to skate around the standards and guidelines of the old forest plan by proposing regeneration logging in goshawk post fledgling areas which is a violation of NFMA and NEPA.

Regeneration Logging is not allowed under the East Side Screens and is proposed in Goshawk Post Sledging Areas:

"A 30 acre, no-cut buffer of the most suitable habitat around the nest tree should be deferred from harvest. A 400 acre post-fledgling area (PFA) should be established around the nest stand. Harvest activities that enhance younger stands towards late and old condition are compatible with PFA management. If the particular biophysical environment is below the historic range of variability (HRV) for late and old structural stage stands (LOS), these stands should be deferred from harvest. If the biophysical environment is at or above HRV for LOS stands, then timber harvest "can occur within these stages as long as LOS conditions do not fall below HRV. Enhance LOS conditions and attributes as possible, consistent with other multiple use objectives." B-Park_proposed_goshawk_mgmt_9.24.2018

The regeneration logging proposal for Unit 18 in the Gardiner Creek Goshawk Nest would remove cedar-hemlock and ponderosa pine old growth from and adjacent to the post fledgling area, violating directives of the East Side Screen since LOS is below HRV, violating the informal agreement to not log old growth, and removing target nesting stands from the PFA. The exhibit below shows the violation of the East Side screens, illustrating the overlap between unit 18, a proposed "opening" and the Gardiner Creek PFA boundaries in pink on the left side of the map below. Green dots show location of observation and photo points by the author. Please also note that the wildlife analysis document uses cutting unit maps with units that overlap RHCA's leading to questionable analysis due to maps that are not spatially correct.

Please discuss the selection of Gardnier Creek alt nest stand 1, which appears to consist of more areas without sufficient canopy cover than contiguous areas to the north and the old growth to the east.



For the Little Tacoma Creek and Boulder Mountain Goshawk PFA's the proposal is to log a portion of both PFAs using thinning from below (removing cover for prey species) and creating a skip and gap scenario which is regeneration logging [even in alternate nest stands] and violates the East Side screens for goshawks.

The Proposed Action will not meet new forest plan standards.

FW-GDL-WL-19. Northern Goshawk Nesting Sites Goshawk territories should have the following components (new Forest Plan 2018):

1. A 30-acre nest site (active within the last five years) where no adverse management activities should occur as long as the nest site is active. Dominant trees should be larger than 15 inches dbh.
2. Post-fledgling area (420 acres total), including six nest areas, each 30 acres in size (six

nest sites – three nests are suitable and three are replacements).

3. Foraging area surrounding the post-fledgling area, and Colville National Forest Land Management Plan Chapter 2 – Forestwide Direction 68
4. Total home range size = 6,000 acres. All active (within the last 5 years) or replacement nest sites for the northern goshawk should provide suitable nesting habitat with more than 50 percent canopy closure. Foraging area habitat can be a combination of late- and mid-seral stages.

None of the discovered territories provide 6 suitable and 6 replacement nest stands, nor is there any spatially explicit and quantitative analysis of the territory itself (see below). Guidelines of the new Forest Plan are also not followed.

Monitoring: the Wildlife Report, only quotes the portions of Moser and Garton (2009) that support the logging project.

The EA proposes scientifically indefensible monitoring for the three northern goshawk nest territories discovered due to the 3 year short term monitoring of the nests while Moser and Garton recommend long term monitoring:

"Because breeding goshawks may exhibit a delayed response to changes in prey densities (Tornberg et al. 2005), we recommend long-term monitoring of this species in areas of forest management. (in Moser and Garton 2009).

in the EA and Wildlife report:

"Goshawk Nests - The three known goshawk nests in the project area would be monitored in an attempt to determine whether timber harvest in the post-fledgling areas (PFAs) affects nest stand re-occupancy" EA P 14.

"Monitor Goshawk Nests

Monitor the 3 known goshawk nests in the project area in an attempt to determine whether timber harvest in the post-fledgling areas (PFAs) affects nest stand re-occupancy. Use broadcasted taped calls and site-specific searches to determine nest stand occupancy in the year that adjacent harvest units are active, and for 3 years following harvest. Record any alternate nest locations in the PFAs. Use a sight-tube to record pre and post-harvest canopy closure in those units located within the PFAs. Complete a report on the findings of this monitoring." Wildlife Report p14.

What is more concerning is that the continual logging of goshawk stands is taking place on the west side of the Colville National Forest as part of a "study" to see how much logging can happen in PFA's without harming nesting site re-occupancy. The biologist already has stated that :

"A preliminary finding of this research is that re-occupancy of nest stands appears to be negatively affected when timber harvest occurs near these sites (pers. comm. with C. Loggers, 2018)." B-Park-proposed-goshawk-mgmt-9.24.18

The proposed monitoring is only for 3 years after logging, and this pseudo study does not take into account long term monitoring recommended by Moser and Garton (2009) and amounts to an **observation and an irretrievable commitment if nesting goshawks are driven from their nest stands. Trees or goshawks cannot be replaced if logging causes nest or territory abandonment.** Proposing an unscientific observational study on a sensitive species is outrageous and amounts to fraud and is clearly written to favor logging over conservation of sensitive wildlife. This should only be undertaken after the species has been recovered and removed from the sensitive species list with the inclusion of a scientific committee and University.

Please discuss monitoring study design and what University will be involved with this proposed experiment on goshawk PFA areas.

Please disclose the nesting success/failure/abandonment rate of logging projects in goshawk territories that are being monitored on the west side of the Colville National Forest.

The USFS fails to assure viable populations of wildlife are being maintained following three decades of forest plan implementation by this proposed action. Again, there can be no proper cumulative effects analysis if the FS has failed to properly conduct the monitoring assumed in the Forest Plan EIS.

Analysis of PFA is different than Moser and Garton.

Moser and Garton (2009) use a circle around the nest site for habitat calculations. The USFS uses an arbitrary irregular shaped polygon. This invalidates the use of this study.

The EA/wildlife report failure to take a hard look at the Northern Goshawk home range.

There is no quantitative and spatial analysis of territory condition. The proposed alternative is devastating to closed canopy forest within northern goshawk home ranges.

The proposed action more closely resembles the landscape level logging that occurs in goshawk territories in the Crocker-Bedford study than in the PFA study of Moser and Garton.

"Our findings contradicted those of Crocker-Bedford (1990) and Patla (2005), who found that goshawks in breeding areas subjected to some type of timber harvest exhibited lower re-occupancy and nest-success rates. However, Crocker-Bedford (1990) studied the effects of

extensive timber harvest treatments (.1000 ha) on goshawk reproduction. Although our study involved more intensive timber harvest, it was in a much smaller area than reported by Crocker-Bedford (1990). The differences in timber harvest treatments between our study area and Crocker-Bedford's (1990) study area may also explain the differences in our results. For instance, the timber harvest treatments in Crocker-Bedford's (1990) study were conducted across large areas (1000 to 5000 ha), which may be more likely to negatively affect goshawk reproduction by affecting the quality of foraging habitat. ***Subsequent unpublished analyses suggested timber harvest within goshawk foraging areas had adverse effects on goshawk reproduction (C. Crocker-Bedford pers. comm.).*** [emphasis added] in Moser and Garton(2009).

And

"The amount of area harvested within each breeding area was a relatively small proportion of the entire home range, which may explain why we found no significant differences in reproduction between harvested and unharvested goshawk breeding areas. " Moser and Garton (2009). [emphasis added]

Please map foraging areas for the known goshawk territories and delineate late and mid seral foraging areas as required in the *new* Forest Plan.

"#4. Foraging area habitat can be a combination of late-and mid-seral stages."

Nest Stand Size

Please conduct a literature review of northern goshawk research to explain why the Idaho Panhandle National Forests leave a 40 acre nest stand while the Colville National Forest only uses a 30 acre nest stand.

Short-term effects to goshawk foraging habitat will be severe.

Regeneration and commercial thin logging will greatly reduce prey species availability, there will be ongoing disturbances from logging activities, existing complex habitats will be simplified, logging and underburning or piling will result in a population crash of prey species such as red squirrel and snowshoe hare. Additionally, the new plantations will not emulate natural snag forests and the biodiverse fauna they support which would provide prey. Precommercial thinning would remove snowshoe hare habitat. Dense young stands would propagate fire quickly through the area under extreme conditions.

The EA fails in habitat analysis for goshawks, is not quantitative and raise suspicions that foraging and PFA habitat analysis was not completed in a credible manner.

The EA states that current project proposal will commercial thin in goshawk PFA's and makes

questionable assumptions about prey availability in reference to thinning. Thinning stands reduced red squirrel density, a primary prey species of the northern goshawk throughout the red squirrel's range.

"The impact of forest thinning from logging is known to be detrimental to goshawks, due to reductions of one of their most important prey species, the red squirrel. This species was identified as one of the most important goshawk prey species based on Montana research (Clough 2000 at 27, 33). Research has demonstrated that red squirrels decline with forest thinning (e.g., Herbers and Klenner 2007, Abstract, 2658-2661; Holloway and Malcolm 2006, Abstract, 1740-1744). The latter noted that preservation of viable populations of red squirrels will require the provision of large unharvested areas (Id. at 1744). Logging has been identified as a factor in the decline of goshawks in the Greater Yellowstone Ecosystem (Patla 2005), on the Black Hills of South Dakota (Faunal West Wildlife Consultants 2003), and in the southwestern United States (Crocker-Bedford 1990)." Johnson and Garrity (2014).

The proposed action is logging old growth despite stating that they are not.

Unit 18, is partially old growth and located in the Gardiner PFA. This area was field reviewed in 2017 by Paul Sieracki, geospatial analyst and wildlife biologist and assessed as a combination of moist and dry site old growth located on the southeast side of the unit. The author has years of experience mapping old growth in the Selkirk Mountains and his MS capstone addressed the effects of climate change to Ancient Cedar and Hemlock forests in the Inland Temperate Rainforest. The USFS stated that they would not log old growth stands, and despite claims to the contrary, that they are not proposing to log in old growth, there is old growth in Unit 18.

The delineation of the PFA for Gardiner Creek is arbitrary and purposely allows regeneration logging of closed canopy moist site old growth in unit 18, and excluded an adjacent patch of dry ponderosa pine old growth (see photos). This old growth is target nesting habitat and serves as quality PFA habitat and a possible alternate nest stand.



The top photo is located in the PFA and illustrate the old growth characteristics of this area scheduled for logging. The lower, dry site photo of ponderosa pine old growth is located just to the east of the PFA. To get an idea of scale, there are 7" wide black binoculars at the bottom of the western redcedar in the left foreground of the upper photo (tiny black spot). Also see the photo on page 6 of the incorporated Scoping Notice comments.

Please completely map Old Growth in the analysis area and on the Forest.

The CNF had not completely mapped old growth in the Boulder Park analysis area.

The FS Chief directed each national forest to complete an inventory of its old-growth forests, in recognition of the ecological, economic, and social values they hold for the American people and components of the ecosystems (quoted in Green et al., 1992). Nearly three decades following the Chief's directive, the CNF has yet to complete a comprehensive inventory of our old-growth forests.

The CNF has also failed in its obligations, set out in the Forest Plan, to monitor population trends of management indicator species in response to management activities.

The wildlife report makes specious statements verging on the absurd about the effects of commercial thinning on goshawks in an attempt to justify logging.

Please cite references and not anecdotal observations and absolutely ridiculous statements like they can fly easier through opened stands in the EA and Wildlife Reports. Thinning from below removes breeding habitat for ground and low canopy nesting birds (prey species), including varied-thrush, swainson's thrush, hermit thrush, american robin, pacific wren, orange crowned warbler among others and thus reduced prey availability as discussed above. A reduction in leaf area index and the surface area of the stems provides less substrate for insects that provide food for neotropical and resident songbirds.

'In commercial thinning units, the overhead tree canopy would be reduced, but not removed. Crown complexity and bulk density would be reduced. Concealing cover would be reduced in proportion to the amount of tree basal area removed. These effects could last from 15-20 years, until tree crowns begin to abrade. [could or will, please provide data to support this] Ambush hunters such as goshawks could experience reduced hunting effectiveness in the harvested stands. [could or will?.. again] Conversely, thinning harvests would provide some immediate benefits to large raptors. In the treated stands, these birds would have less "clutter" to negotiate when flying through the tree canopy. [please cite credible research that this is really a benefit] Many of the stands are presently so densely stocked with trees they may be avoided by goshawks. [how many and where are they located?] Thinning these stands could essentially increase the area that the birds can effectively access. [could or will?.. again]

Equipment corridors in forest stands that have been thinned may serve as convenient "flyways" or hunting lanes for goshawks. [may or will?.. again] This is suggested by evidence of corridor use we have detected such as prey plucking sites, whitewash splashes, and direct observations of birds in flight."

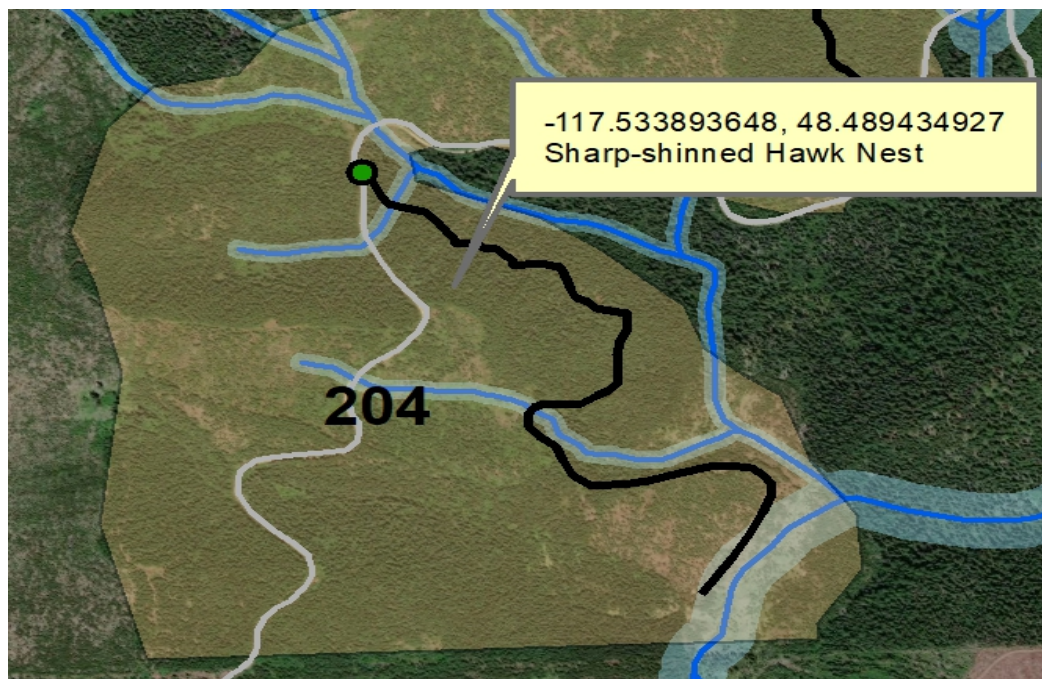
Please provide credible research that supports the statements in the paragraph above. The use of "could or may or suggested" shows much uncertainty in the statements and should be backed up by research.

In addition, please show a probability analysis that the claim that the PFA's will burn up without logging is an valid concern.

No surveys species specific for other forest hawks including coopers and sharp shinned have been conducted. A sharp-shinned hawk nest was found while surveying for northern goshawks. The USFS chooses to ignore this species because it is not protected under the 1988 Forest Plan, but is under the new Forest Plan.

"FW-GDL-WL-18. Nest Sites For forest species listed in table 16, all known active nest sites should be protected from human disturbance caused by management activities during the following periods to reduce the risk of nest abandonment or decline in productivity."

If coordinates were assigned correctly this nest is located in a proposed precommercial thin, unit 204. Please state how sharp-shinned hawk nests will be protected from human disturbance, including logging, road building and human activity under the old and new Forest Plans. Please develop a management plan for this nest site.



Flammulated owl (Otus flammeolus)

The wildlife report erroneously states that Flammulated Owl habitat is not present. According to the report the Flammulated Owl is:

"Associated with ponderosa pine forests and mixed conifer stands with a mean 67percent canopy closure, open understory with dense patches of saplings or shrubs. Grassy openings for foraging"
Wildlife Report P36

The wildlife report also states that flammulated owls are not documented in the area. This might be because no owl surveys have been undertaken. A field review of MA1 near Gardiner Creek indicates that stands of larger ponderosa pine and douglas fir exist on southwestern aspects. Please correct this error and conduct surveys for all species of owls.

Rodenticides and herbicides

Please state in the EA if rodenticides and herbicides would be used and if so, there effects to predator and scavenger species from biological magnification and from removal of prey species.

Grey Wolf – sensitive species.

The wildlife report states that

"Any discovered wolf den or rendezvous site would be protected from disturbance, if necessary. Disturbance to wintering big game confined to one drainage in a given winter. " p29.

Please conduct credible surveys to locate wolf dens and rendezvous sites so these areas can be protected before road building and logging occur.

Fisher - a strategic species

Fisher historically occur in this area and the Colville National Forest. The EA has not addressed effects to fisher and its habitat. Please see attached Scoping Notice comments for Fisher.

Canada Lynx – ESA threatened.

Logging to meet HRV and lynx habitat guidelines is not indicated because of the extreme pressure on spruce fir forest due to global heating. The best option is to not log, let existing stands naturally succeed toward old growth (which provided both denning and foraging

habitat) and remove roads from the LAU. Logging in Lynx habitat is a violation of NEPA and the ESA.

Please discuss in detail, citing peer reviewed literature and using quantitative spatial analysis how climate change will impact the subalpine habitats that lynx occupy and please discuss the importance of old growth spruce fir forests in providing prey in the form of snowshoe hares, denning sites and its value to other rare subalpine species. Please discuss how old growth provides more valuable habitat than tree plantations.

Please discuss the impacts of snowmobile use in Lynx habitat.

Please consult with the USFWS on the effects of logging and climate change to the Canada lynx.

Wolverine – ESA Candidate Species.

Wolverines exist in the project area and are currently proposed for listing as threatened under the ESA. The species was originally proposed for listing in 2013 due to risk of eventual habitat and range loss due to climate warming, with secondary threats from trapping and wolverine harvest, human development, transportation corridors, and loss of genetic stochasticity due to isolation between snowy habitats caused by climate change. Activities in wolverine habitat may be detrimental to this animal. Please consult with the USFWS on this species.

Grizzly Bear – ESA Threatened Species

The Biological Evaluation (BE) laudably delineated core habitat. Please discuss if these areas will be free from disturbance for at least 10 years as required for core habitat in the GBMU's.

The BE again makes specious statements without quantitative analysis using scare tactics about fire impacting grizzly bear habitat, using unscientific words like "likely" without a spatial probability assessment. The BE also alluded that wildfire would be detrimental to grizzly bears, this is untrue as they tend to utilize burns as they revegetate. Please map huckleberry fields, either forested or non forested and analyze the effects of management activities in a credible quantitative way. Recent research indicates female bears in the Selkirks and Cabinets tend to spend much time in areas with huckleberry concentrations. Mere statements about berries and forage are quite meaningless without being spatially explicit.

It would be wise to delineate this area as a BORZ. Please consult with the USFWS on this action.

Bull Trout – Endangered Species

Tacoma Creek is critical bull trout habitat. Please develop an alternative that fully restores hydrologic function using road removal and eliminating logging in RHCA's which is proposed by this EA. Please introduce bull trout to this stream since it is apparently unoccupied critical habitat. Please consult with the USFWS on this action.

West slope Cutthroat Trout – Sensitive Species.

Please develop a plan to eliminate brook trout above the fish barrier on Tacoma Creek and keep or reintroduce cutthroat trout. Please replace existing culverts with oversized ones with flow capacity to account for increased precipitation for the "business as usual" climate projection.

Snags

The commentors recommend that snags deemed to be hazards to tree felling, be left and be buffered by leaving trees around the snag or be cut at at 10-12 feet preferentially to felling the entire dead tree.

Please retain all snags, if the choice is between felling a snag to safely log a green tree, skip logging that green tree. This will provide an existing snag and a replacement.

The Colville National Forest should use a Science Consistency Review Group instead of a biased timber output Collaborative process.

The Northeastern Washington Forest Coalition is Not a Science Consistency Review Group. We urge the FS utilize its own non -collaborative process, the Science Consistency Review, to evaluate this alternative along with your PA. Guldin et al. (2003) state that:

*...outlines a process called the science consistency review, which can be used to evaluate the use of scientific information in land management decisions. Developed with specific reference to land management decisions in the U.S. Department of Agriculture Forest Service, the process involves assembling a team of reviewers under a review administrator to constructively criticize draft analysis and decision documents. Reviews are then forwarded to the responsible official, whose team of technical experts may revise the draft documents in response to reviewer concerns. The process is designed to proceed iteratively until reviewers are satisfied that key elements are **consistent with available scientific information.***

The FS would enlist objective, independent peer review to evaluate its PA and the alternative we request. Such an undertaking would also assist the public, per NEPA direction, in

understanding best available science.

Because this alternative is skewed towards logging and illegal if implemented we encourage the USFS to develop and select an alternative the truly represents forest and ecosystem restoration through road removal, introduction of fire in appropriate areas, preservation of existing goshawk PFA's, endangered species and subalpine habitats.

Respectfully submitted,
Paul Sieracki, MS
Geospatial Analyst/Wildlife Biologist



and for,
Michael Garrity, ED
Alliance for the Wild Rockies
P.O. Box 505 Helena, Montana 59624
406-459-5936

References:

Guldin, James M., David Cawrse, Russell Graham, Miles Hemstrom, Linda Joyce, Steve Kessler, Ranotta McNair, George Peterson, Charles G. Shaw, Peter Stine, Mark Twery, Jeffrey Walte. 2003. The Science Consistency Review: A Tool to Evaluate the Use of Scientific Information in Land Management Decision-making. United States Department of Agriculture Forest Service FS-772, September 2003.

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Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., 2014: Climate Change Impacts in the United States: The Third National Climate Assessment. U.S. Global Change Research Program, 841 pp. doi:10.7930/J0Z31WJ2.

Sieracki, Paul. 2018. Scoping Notice Comments for the Boulder Park "Ecological Restoration Project", Newport-Sullivan Lake Ranger District, Colville National Forest.

Paul Sieracki



May 7, 2018

Scoping Notice Comments for the Boulder Park “Ecological Restoration Project”, Newport-Sullivan Lake Ranger District, Colville National Forest.

Dear District Ranger Gayne Sears and Katharine Napier, Project Leader,

This planet is in a climate change emergency and is entering a period called the 6th great extinction, because of this complete emphasis must be placed on restoring healthy and resilient populations of wildlife in the context of combating climate change and biodiversity loss. Logging should be eliminated from National Forests as it causes a carbon deficit. Dr. Rees, professor of human ecology and ecological economics states that “Humans are Blind to Imminent Environmental Collapse” and that governments are dismissing scientists warning to humanity.

“Bottom line? The world seems in denial of looming disaster; the “C” word remains unvoiced. Governments everywhere dismissed the 1992 scientists’ [Warning to Humanity](#) that “...a great change in our stewardship of the Earth and the life on it is required, if vast human misery is to be avoided” and will similarly ignore the scientists’ “[second notice](#).” (Published on Nov. 13, this warning states that most negative trends identified 25 years earlier “are getting far worse.”)”
<https://thetyee.ca/Opinion/2017/11/16/humans-blind-imminent-environmental-collapse/>

Edward O. Wilson is a professor emeritus at Harvard University and a two-time Pulitzer Prize winner supports the half earth concept, expanding the existing system of biological reserves.

“Only by committing half of the planet’s surface to nature can we hope to save the immensity of life-forms that compose it. Unless humanity learns a great deal more about global biodiversity and moves quickly to protect it, we will soon lose most of the species composing life on Earth. The Half-Earth proposal offers a first, emergency solution commensurate with the magnitude of the problem: By setting aside half the planet in reserve, we can save the living part of the environment and achieve the stabilization required for our own survival.

Why one-half? Why not one-quarter or one-third? Because large plots, whether they already stand or can be created from corridors connecting smaller plots, harbor many more ecosystems and the species composing them at a sustainable level. As reserves grow in size, the diversity of life surviving within them also grows. As reserves are reduced in area, the diversity within them declines to a mathematically predictable degree swiftly—often immediately and, for a large fraction, forever.” E. O. Wilson

Federal Lands are an important component providing large landscapes for biodiversity maintenance and carbon storage. This sale is not ecosystem restoration as touted, but an ecological disaster in the making. ***Conserving biodiversity and carbon must be the first and foremost mission of the USFS.***

Participation in public process

The commentor(s) incorporates the comment letter for the Parker Meadows CE which is attached. This allotment lies within the Boulder Park project area. The commentor has attended 3 public informational meetings and a field trip, a field day identifying old growth stands with USFS personnel and has tallied two trips so far assessing proposed logging units and looking for old growth.

Local Climate Change

Predictive modeling indicates that Boulder Park area will have: hotter summers, warmer wetter winters and more variability; novel climates may emerge. Predictions based on RPC 8.5 for the Tacoma Ck. drainage indicate that summer temperatures are going to spike, summer precipitation may decrease, winter precipitation will increase and stress caused by summer evapotranspiration will increase (Appendix B, Climate Projections, source [https://climatetoolbox.org/tool/Future-ClimateLocation:48.36o N, 117.50o W](https://climatetoolbox.org/tool/Future-ClimateLocation:48.36oN,117.50oW)). Selecting a more southerly aspect shows even more change in extremes values. RPC 8.5 is widely regarded as the minimum or more likely climate change trajectory than more moderate projections given the current lack of urgency to reduce CO₂ and Methane emissions. Local climate change projections will negatively effect migratory songbird species.

Boyle and Martin (2015) found that high elevation habitats are very important for migratory birds in British Columbia. Logging must be eliminated in high elevation habitats (subalpine) to provide natural habitats for songbirds and to reduce increased stress from un-natural design-a-stand approaches.

“Most species exhibited strong temporal variation in patterns of abundance that were related to migratory behavior. From an extensive literature-based survey, we found that ~35% of North America's breeding bird species use high elevations, and that all primary high elevation habitats are important for full life-cycle conservation of this avifauna. Our findings highlight the importance of high elevation habitats to migrating birds from wide-ranging breeding distributions for at least three months of the year, a period equivalent to the length of the breeding season for most species. These results emphasize the need for effective conservation of fragile alpine and other high elevation habitats that are increasingly threatened by local, regional, and global anthropogenic disturbance.” (Boyle, W. A. and Martin, K., 2015. The conservation value of high elevation habitats to North American migrant birds. Biological Conservation 192 (2015) 461–476. <http://dx.doi.org/10.1016/j.biocon.2015.10.008>)

They found that 25 species using high elevation habitats were of concern:

“Over 26% of the species (n = 25) detected on our surveys were birds listed by North American and local conservation planning and management agencies including five Red-listed and eight Blue-listed species or subspecies”

Cambell et al. (1997 in Boyle and Martin, 2015) found that chestnut-backed chickadees, which also occur in the project area, exhibited altitudinal migration, breeding at low elevations, moving upslope in late summer, then winter at lower elevations. These complex patterns of elevational and distance migratory behaviours that many bird species have need to be addressed to maintain these species over the long term especially with increasing climate change stressors.

This project, proposing 16.6 square miles of logging divided about 50:50 between regeneration and commercial thinning will negatively affect biodiversity. This is about 1/3 of their project area. The existing road density is extreme at 7.36 miles of road per square mile based on information in the Scoping Notice/Proposed Action. The Colville National Forest (CNF) proposes constructing 13.5 miles

of additional roads in a highly roaded landscape with 370 miles of existing roads in a 32164 acre (50.25 sq miles) analysis area. The new roads would access new areas and the USFS will try to compensate by closing additional roads. The additional sedimentation from all the new roadbuilding will impact water quality.

The information presented in the proposed action is insufficient to prepare substantive comments. Despite three public meetings and a field trip, the scoping notice does not portray the existing condition of the various topics required to be addressed in the NEPA document, especially wildlife and old growth. There was little data presented on the occurrence of sensitive threatened and endangered species based on fresh wildlife surveys. The fisheries biologist could not indicate based on fish surveys if there were pure strains of cutthroat trout above barriers to brook trout in streams that area currently blocked from the main stream from fish barriers. The silviculturalist could not provide stand exams for the area being proposed for logging and later provided stand exams for a few stands.

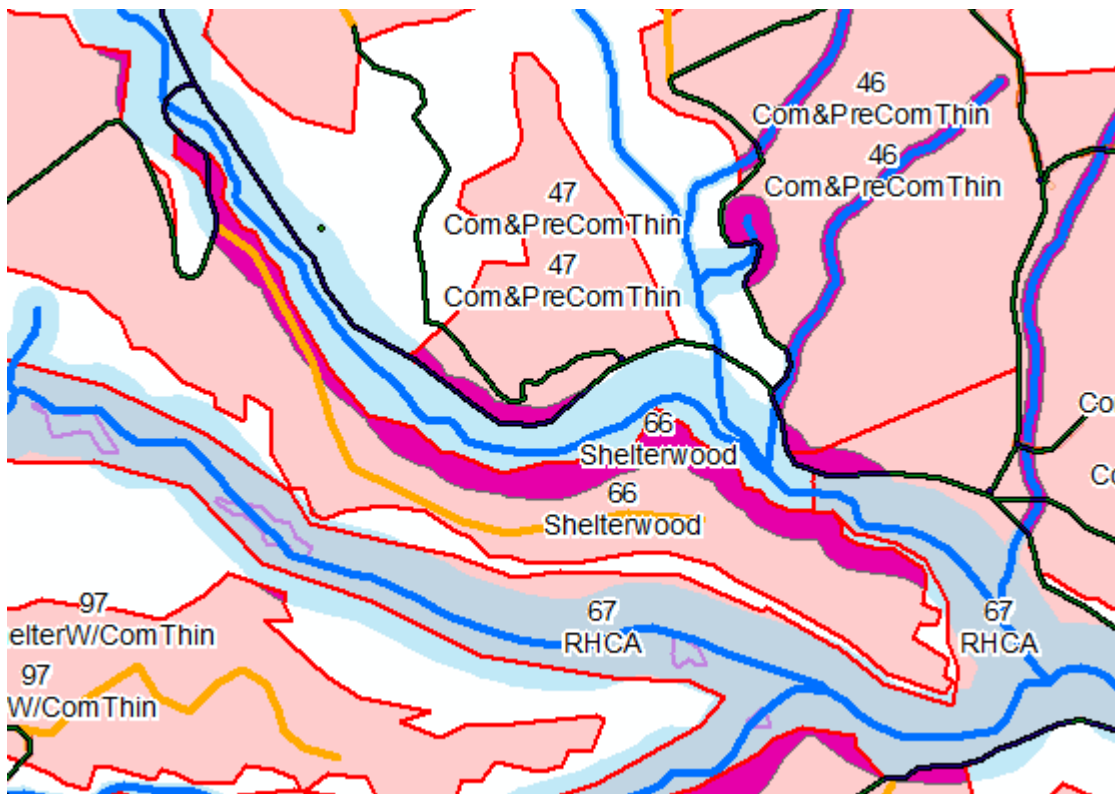
Old Growth has not been mapped. District Ranger Gayne Sears agreed in a public meeting for the Boulder Park EA to have the HRV of old growth developed or provided, this information has not been made available as of yet for use in substantive commenting. Currently old growth is combined with open and closed mature categories making separation of this important ecosystem component impossible, and the exclusion of an old growth category in HRV estimations is unconscionable and unprofessional. The commentor has agreed to a field trip with USFS personnel to assist with old growth identification this upcoming summer (2018).

Old growth and northern goshawk nests and territories are not delineated. Areas suitable for restoration of dry site old growth are not indicated. Fire refugias are not delineated, where moist site old growth and cedar groves could form, leaving the commentor without existing condition information to substantively comment. This is of critical importance to help moist site old growth develop in the project area. There is no map showing probabilistic models of tree species change due to the rapidly changing climate. The three public meetings provided minimal substantive information and amounted to a question and answer session.

In addition, despite many comments during these meetings, the USFS only removed one unit in the RHCA when the proposed action was published. After stating publicly they would not enter the RHCA in a large unit (67), the proposed alternative shows that unit 67 was removed but not all logging in the RHCA in adjacent units in that area would be terminated. A substantial portion of shelterwood unit 66 is still entering the RHCA (see map below). Also note the length of roads in the RHCA of Tacoma Ck which is bull trout critical habitat. Logging in RHCA's was also opposed by the Kalispel Tribe representative.

This commentor supports an ecosystem based approach, the term "Forest Health" has been abused and misused by the USFS to only address timber production issues. An ecosystem approach includes maintaining not only viable populations of non tree life but would trend wildlife, plant, fungi, bacteria.. all life form populations towards abundance and resiliency relative to maximum populations an area can provide. This contrasts with CNF Forest Plan direction for management indicator species that would reduce their population to minimum viable levels.

In conclusion, the Newport Ranger District was unresponsive to input from interested publics during the 3 public meetings and one field trip and only minimally modified their proposed action.



This map shows unit 67 which has been tentatively removed but indicates that the USFS is proposing to log a strip 1.8 kilometers long in Unit 66 using regeneration logging (magenta) which will amount to a clearcut after the shelterwood trees are removed.

The analysis area is incorrectly delineated

The analysis area is purposely truncated to cover only USFS lands in the Tacoma and Cusick Ck. Watersheds. The USFS first proposed to use HRV that was developed for the area only on USFS lands. They then added private timber lands in the analysis area when goaded by publics in one of their information meetings. The analysis area is not ecosystem based, neither is it watershed based, excluding the lower reaches of Tacoma and Cusick Creeks and smaller watersheds that drain into the Pend Oreille River. Not including the deforested portions of the watersheds allows the USFS to cut more timber on our public property based on proportions. The image (Illustration 1) below shows watersheds that should be used in the cumulative effects analysis, both for hydrology, fisheries, wildlife and other resources. The extensive amount of deforestation on private timber lands in the original analysis area is also evident.

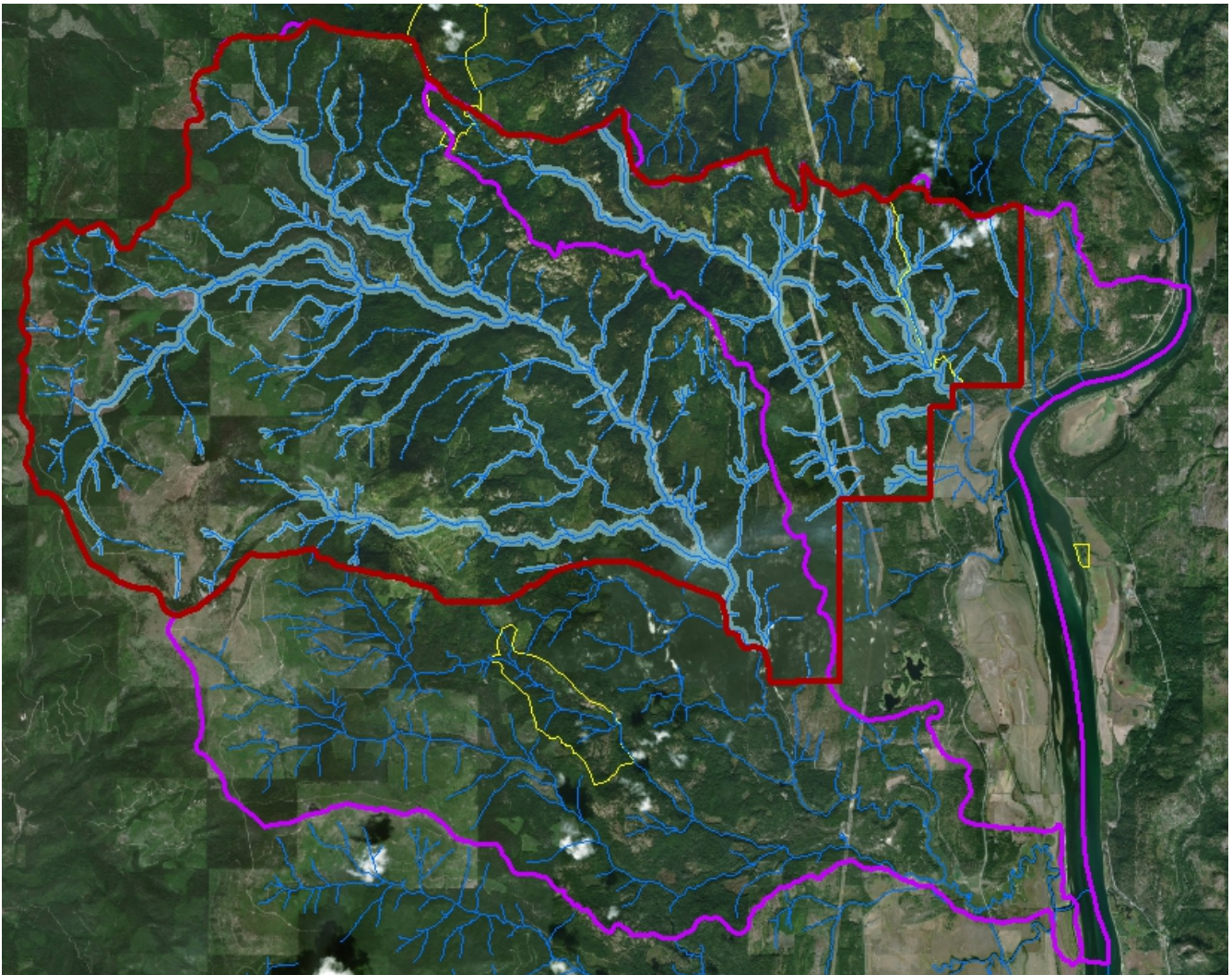


Illustration 1: Watershed based analysis, the red outline is the proposed analysis area, the purple outline includes most of the Tacoma and Cusick Ck. watersheds and illustrates the deforested private lands near the Pend Oreille River.

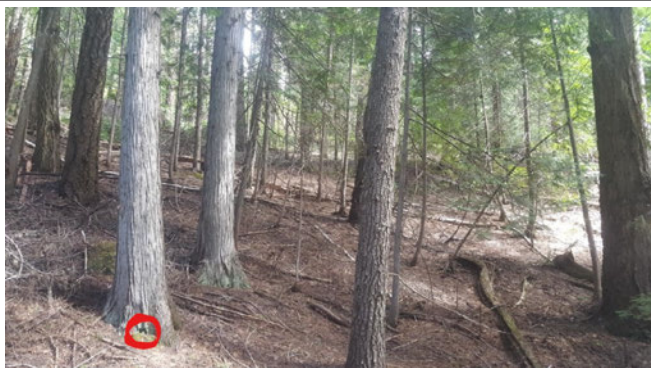
Boulder Park Proposed Logging is not Restoration

Regeneration and commercial thin logging will cause stand level forest simplification. Early seral stages created by fire are structurally complex and biologically diverse. Early seral plantations created through logging lose that structural and biological complexity, by leaving a minimal amount of snags and recruitment trees. “Parking” out mature or old growth moist site stands will reduce vertical and horizontal diversity, homogenizing the stand. For example the Pacific Wren reaches its highest density in moist old growth stands. The Varied Thrush's nest is “usually placed in conifer, at base of branches against trunk, 5-15' above the ground” (<http://www.audubon.org/field-guide/bird/varied-thrush>). It will reduce the stand's suitability for ground and understory nesting songbirds. This would occur at a large landscape level with implementation of the existing and proposed new Forest Plans. Natural succession which provides habitat for early successional species will be truncated by the almost immediate tree planting of commercial, genetically selected trees. The solution to biodiversity loss is a rewilding program where roads are eliminated, and fire is introduced and commercial logging

eliminated.

Old Growth

The USFS had/has no information on old growth distribution, and could not state if MA1 and other areas allocated for retention for old growth associated species were actually functioning old-growth. These areas [some] were allocated based on heights derived from LIDAR and no stand information. It is not certain how the CNF can meet this requirement without mapping old growth areas. The USFS needs to differentiate between areas which are actually old growth, areas allocated for old-growth species that meet old growth criteria, and areas allocated for old-growth species that do not meet old growth criteria. Forest watch field investigations have documented old growth in unit 29 and 18 so far. The commentors recognize that a proportion of the analysis area consists of younger stands as stated during the public meetings.



Unit 18, 7" wide binocular in red circle. The commentors realize that one cannot confirm old growth stands from photos, however, these photos serve as a general reference for the area.



Unit 29. Fire scarred western red cedar, one western larch stump was found to be 170 years old approximately. Binoculars are visible.

Best available science regarding screening stands for potential old growth inventorying (Green et al., 1992) requires proper stand stratification, actual field examinations and professional review to determine if stands meet criteria for old-growth habitat. Why is the USFS ignoring this science? Additionally, unique old stands can exist outside Green et al's criteria and can be included as old growth. Please identify patches of old trees that may be suppressed, appear as krumholtz or other forms that exist outside of the old growth definition, identifying unique areas such as these is a requirement of the CNF Forest Plan.

Please estimate, using the best available science, the amount and type of old-growth in the analysis area historically, document the amount present currently and allocate additional stands to meet historic

levels (likely up to 30% based on the adjacent Selkirk Mountains). This is required for developing HRV under amendment 2 of the Region 6 Forest Plans.

HRV of old growth is not separated from mature stands.

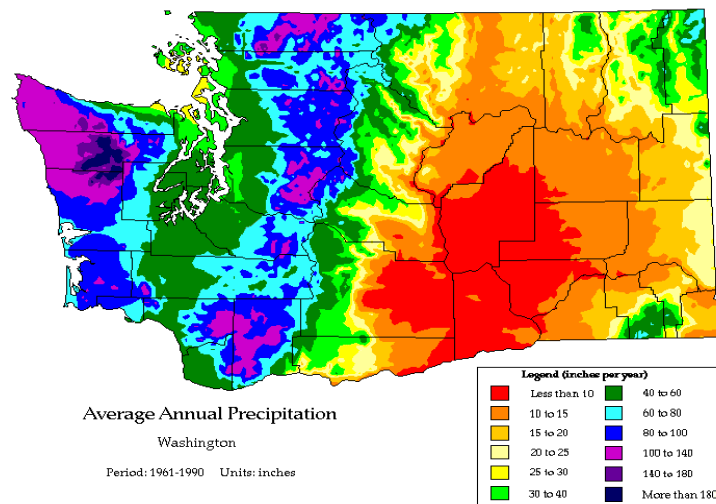
The following table shows the distribution of structure classes chosen by the CNF for the draft Forest Plan EIS from the Forest Vegetation Report for the FEIS Forest Plan Revision (J. Day, 2016):

"Table 2. Structure class definitions based on canopy cover and diameter

Structure	Definition
Early	Trees less than 10" dbh or canopy cover < 10%
Mid Open	Trees 10-20" dbh, canopy cover ≥ 10% and < 40%
Mid Closed	Trees 10-20" dbh, canopy cover ≥ 40%
Late Open	Trees ≥ 20" dbh, canopy cover ≥ 10% and < 40%
Late Closed	Trees ≥ 20" dbh, canopy cover ≥ 40%

Tree structure is classified into five general groups based on diameter and canopy cover as shown in table 2. Haugo et al. (2015) used a similar approach to defining structure classes, and the GNN data (2012) lends itself well to easily analyzing forest structure at multiple scales using these definitions. The diameter is based on the quadratic mean diameter in inches of trees whose heights are in the top 25% of all tree heights in the stand. This generally means that the diameters of the larger co-dominant trees in a stand are used to define the structure class."

Old growth is not separated from the existing mature HRV, obfuscating the amount and distribution of old growth by lumping it with mature size class trees. The entire HRV analysis is flawed by lumping HRV across the Forest, clearly HRV for the range of vegetation types that occur on the CNF would be different when separated by level 4 EPA ecoregions. The analysis area is in 15y, Selkirk Mountains with similarities to the Selkirks east of the Pend Oreille River and in adjacent Idaho, while the CNF also encompasses dryland habitats; Okanogan-Colville Xeric Valleys and Foothills, Okanagan Highland Dry Forests, Western Selkirk Maritime Forest and High Northern Rockies (illustration 2). These different ecoregions may have different HRV values for vegetation types including old growth. Lumping Level 4 ecoregion types all together for analysis at the Forest Level and then applying combined HRV values at the watershed level is questionable especially when noting that there is a west/east precipitation gradient, and the analysis area is located in the moister eastern area of the CNF. The image below shows the similarity of precipitation levels in the project area with the greater Selkirks to the east (http://4.bp.blogspot.com/-zVnhRx2nHBY/ToSk36KCE-I/AAAAAAAAAbY/9VeZKDp9vm8/s1600/precipitation_map.gif)



The HRV does not separate out burns from regeneration logging areas. Burns, provide a structurally diverse early seral stage with high biodiversity. Clearcut logged areas (including seed trees and shelterwoods because the overstory is eventually removed) have greatly reduced structural and biological diversity. For some bird species like the olive-sided flycatcher, these areas may act as an ecological trap because they appear attractive to the birds but birds have reduced nesting success (Robertson, B. A. and R. L. Hutto. 2006. Is selectively harvested forest an ecological trap for olive-sided flycatchers?" The Condor 109(1):109-121. 2007 [https://doi.org/10.1650/0010-5422\(2007\)109\[109:ISHFAE\]2.0.CO;2](https://doi.org/10.1650/0010-5422(2007)109[109:ISHFAE]2.0.CO;2)). The olive-sided flycatcher is on the Audubon/American Bird Conservancy Watch List (yellow list).

The USFS HRV analysis does not even mention stand size which is critical for sensitive species, old growth and species that need more stable interior moist old growth habitats such as some lichen species. Microclimates are important!

"Climate patterns for the Colville are influenced by a transition between an intense rain shadow effect in the west formed by the Cascades, and the inland expression of maritime climate in the east caused by the convergence and uplifting of moist air masses over the Rockies. The result is a considerable west-east variation in precipitation across the forest. This variation can be seen expressed in vegetation from open, dry Douglas-fir types along the Okanogan-Ferry County line on the western boundary of the Forest, to more moist redcedar-hemlock vegetation types near the Idaho border on the eastern boundary of the Forest (Williams et al. 1995)." CNF-Forest Plan Revision Project. Forest Vegetation Report.

Both the current and proposed Forest Plans are and will be reducing biodiversity. For example lichens need more than applying design-a-stand ideas that would gut moist site old growth forests. Old growth must be distributed over larger areas than currently allocated to provide the variety of microclimates needed to maintain biodiversity. Aresenault, 2000 states that:

"Other important habitats for bryophytes and lichens include include large rotten logs, and large leaning trees and snags . At the stand level, the number of species of bryophytes and lichens is consistently higher in old-growth forests compared to young forests in both the Interior Cedar-Hemlock Zone and in the Coastal western Hemlock Zone. However, this relationship between species diversity and stand age is complex and will vary for certain groups of species across ecological gradients. For example old cedar-hemlock stands in the inland rainforests located on toe slope positions contain unique assemblages of epiphytic lichens, many of which are rare or infrequent, that are not found on adjacent old-growth forests located on mid-slope positions in the same biogeoclimatic variant. These findings clearly show that

ecosystem representation at a finer scale than the biogeoclimatic variant is essential for the designation of old-growth management areas to minimize the loss of biological diversity in managed landscapes.”

Old Growth as a biological legacy

The draft Plan has a list of biological legacies that are supposed to be represented at the landscape level.

“Large trees, snags, and down material are represented across the landscape and large tree habitat is maintained to support wildlife, aquatic and soil resources and support recovery processes in the post disturbance ecosystem. “

“Table 7. Biological legacy categories, CNF Forest Plan.

Legacy Category Examples Organisms Sexually mature and intact live trees Tree reproduction (seeding and sapling banks) Vegetatively reproducing parts (e.g., roots) Seed banks Shrub, herb, bryophyte species Mature and immature animals and microbes Organic matter Fine litter Particulate material Organically derived structures Downed trees and other coarse woody debris Root wads and pits from uprooted trees Hollow live trees Trees with mistletoe brooms or other features important for wildlife habitat Organically derived patterns Soil chemical, physical, microbial properties Forest understory composition and distribution.”

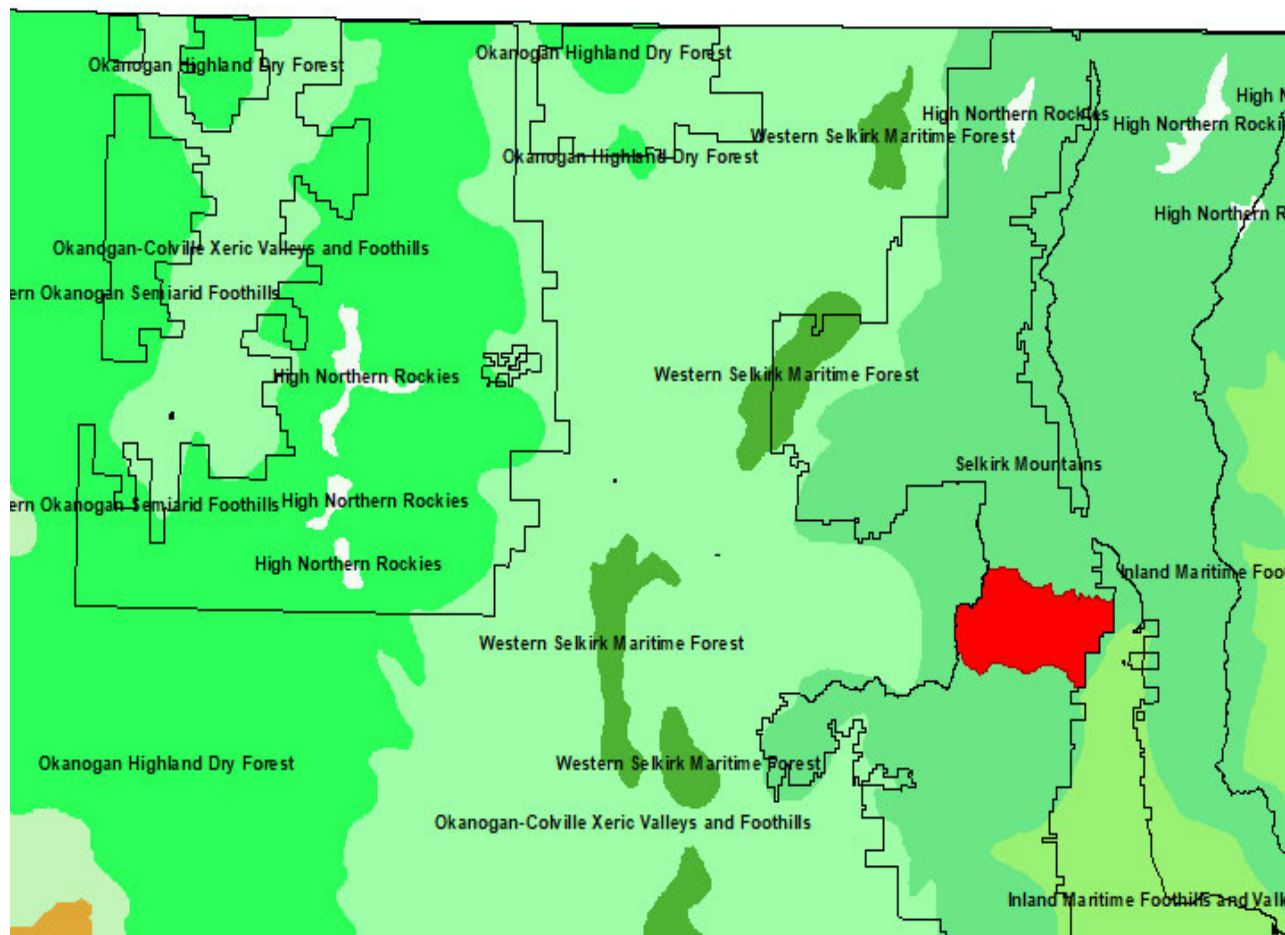


Illustration 2: The Project Area in red is located in the Selkirk Mountain Level 4 EPA Ecoregion. The CNF HRV analysis lumped variation in different ecoregions into one for the entire Forest, the HRV analysis does not separate out old growth.

Biological legacies at the landscape level should include unmanaged moist site old growth stands and dry site stands maintained by fire at historic levels for the Selkirk Mountains ecoregion. Also see the comments about lichen diversity and their distribution related to microclimates above.

NEPA requires the analysis of reasonably foreseeable actions. One of these actions would be approval of the CNF Forest Plan, modified alternative P, which would remove any old growth reserve and open up these areas for timber sales. The new Forest Plan that may be signed this year effectively negates old growth reserves.

“DECISIONS MADE IN THE PREVIOUS FOREST PLAN 438

Decisions made in the previous Forest Plan, such as resource management standards, will no longer be binding unless they are explicitly carried forward by inclusion in this plan. Note that laws, regulations, and directives are not repeated or summarized in this plan (unlike the previous forest plan), but are still in force.” DRAFT CNF Forest Plan, pg 17

The CNF fails to realize that logging an entire landscape with a “design a stand” mentality would devastate old growth associated species because of the change from retaining natural old growth stands to artificialized stands and entire ecosystems. This is part of the reason that **logging is not restoration**.

Roads

The existing road network is impairing ecosystem health and the CNF is proposing to do almost nothing to alleviate these effects. The following table shows road density metrics for their Project Area.

	Miles of road	Road Density in miles/sq. mile
Road miles in the proposed action	370	7.36
“open road” density from the CNF gis database.	168.6	3.6
Roads in RHCA	37 (36.99)	4.16

Road densities will be discussed below. When asked about removing roads from the RHCA the District Ranger stated that they were County roads and the last time they attempted that the County did not act on the road relocation. Removing roads is integral to rewilding ecosystems. Failure to effectively deal with difficult Commissioners should not be an excuse for not moving roads out of RHCA's.

ATV off road use

All off road use by atv's should be identified and terminated. The commentor(s) have noted that the CNF has taken some steps to reduce the problem. Here is one example where ATV use persists.



This is located on the western edge of MA1 that is near Cusick Ck. (NF-436) there may be a locally unique area of gravelly soil that is severely impacted by atv's and dirt bikes. This use must be terminated.

Species specific comments

Pileated Woodpeckers

The 1988 CNF Plan wildlife standards for the Pileated Woodpecker are as follows:

“Within Douglas-fir and cedar/hemlock working groups, within a 1,000 acre unit: maintain 300 acres of conifers in seral/stages VI and/or V, (Thomas, et. al, 1979) per pair for reproducing.

Maintain a minimum average of two hard snags/per acre more than 12 inches DBH within the 300 acre reproductive area. Forty-five of these 600 snags should be more than 20 inches DBH.

When possible maintain reproductive area in 300 contiguous acres. If not possible, habitat may be arranged in blocks no less than 50 acres and no more than 1/4 mile apart.

Maintain a minimum average of two hard snags/per acre more than ten inches DBH on an additional 300 acres for feeding.”

The USFS claims that wildlife standards for the pileated woodpecker have been met through assignment of various habitat areas with connecting “corridors”. The commentors request stand exam data showing which areas allocated for late successional species actually meet the criteria and are

therefore functioning.

Please provide site specific data showing which allocated areas are being utilized by pileated woodpeckers for nesting, disclosing the effectiveness of the late successional area allocations.

Please disclose the Forest Plan Monitoring results for the Pileated Woodpecker.

Regeneration logging in MIS habitat reserves violates Forest Plan standards. This is proposed in Boulder Park. Any logging in these areas will fragment existing and potential habitat and tend to make them less suitable or even completely unsuitable in the case of clearcut logging (overstory trees are removed in shelterwood logging) for pileated woodpeckers through stand sanitation, removing dead and diseased trees that provide food sources to pileated woodpeckers.

Northern Three-toed Woodpecker

The 1988 CNF Plan wildlife standards for the Northern Three-toed Woodpecker are as follows:

“Within subalpine fir working groups and lodgepole pine components of other timber working groups, maintain 75 acres of conifers in seral stages VI and/or V, distributed every two miles.

Maintain a minimum average of two hard snags per acre more than ten inches DBH, within the 75 acre reproductive area. Forty-five of these 150 snags should be more than 12 inches DBH.”

The commentors request that three-toed woodpecker habitat be mapped and that spatially explicit habitat modeling be utilized to display the existing condition and disclose the effects of the alternatives. The mere totaling up of suitable acres and acres proposed to be logged is not spatially explicit. Disclose the results of monitoring Three-toed Woodpecker populations at the Forest Level.

Primary Cavity Excavators

The commentors recommend that all standing dead and near dead, wolf or veteran trees be left standing, where there is a safety issue, precedence goes to leaving surrounding green trees to preserve the snag instead of cutting down the snag.

If a snag is inadvertently fallen, it is to be left intact on site.

If a unit is to be underburned, leave additional green trees to compensate for the trees lost from the underburn. These dying to dead trees will provide a substrate for bark beetles and provide an important missing component (food supply) for primary cavity excavators.

The commentors request that host – parasite relationships involving western larch and dwarf mistletoe be retained in all units and areas of dwarf mistletoe be mapped and retained. Dwarf mistletoe spread can be minimized in subsequent plantations by planting tree species that do not provide a substrate for dwarf mistletoe colonization in a buffer zone around the host tree. Maintaining these trees is very important to preserve biodiversity in a managed landscape because they provide nesting substrates for raptors such as the Northern Goshawk and Great Grey Owl, both sensitive species on the CNF. Trees with dwarf mistletoe are identified as biological legacies in the draft new Forest Plan.

Disclose the results of monitoring primary excavator habitat at the Forest Level and disclose the snag densities in the Project area, and the method used to determine those densities. Please include Bull et al., 1997 as best available science concerning snags and down wood.

Franklin's Grouse

The 1988 CNF Plan wildlife standards for Franklin's (spruce) grouse are as follows:

“Within Management Areas 5, 6, 7, and 8, in areas of extensive lodgepole pine, maintain a distribution of age classes so that within each area of 5,000 acres, at least 1,000 acres are less than 20 years of age. In addition, maintain at least 50 percent of the early age class lodgepole stands in an unthinned condition. Precommercial thinning may occur on these stands after the average tree age exceeds 20 years. Meet this standard within the intent of overall management area objectives.”

Optimum unit size is 20 acres or less, however, size may approach 40 acres. Density of open roads through these stands will not exceed one mile per square mile except during active projects (to protect lynx habitat).“

Most of the proposed units are within management areas allocated for spruce grouse (management areas 5, 6, 7 and 8). There are many units which will exceed the 20 and 40 acre size limit recommended for the spruce grouse (See the discussion on unit size in the winter range section below).

Please map areas of lodgepole pine (and other species) suitable for spruce grouse, and model habitat distribution using a spatially explicit method for the existing condition and alternatives to discover the effects to spruce grouse. It is of importance that spruce grouse also utilize older lodgepole pine and stands of other tree species.

Please use a moving window or suitable analysis to show areas where open road density exceeds the 1 mile per square mile standard. The commentors recommend total road densities of 0.5 miles per square mile or less.

Disclose the results of Forest Plan monitoring spruce grouse populations.

Dusky (blue) Grouse

The 1988 CNF Plan wildlife standards for Dusky (Blue) grouse are as follows:

“Blue Grouse - In park-like or open timber on and near ridgetops, maintain mature limby Douglas-fir or subalpine fir at a rate of at least eight or more trees per acre, either individuals or in groups. Insure hiding cover around at least 50 percent of the perimeter of each spring or other water source, with no break in cover exceeding 600 lineal feet along the waters edge.”

Please spatially model potential and suitable dusky grouse habitat for existing condition and alternatives including projections into the future based on a range of climate models. Since dusky grouse migrate altitudinally, please note that low elevation ridgelines outside of the higher elevation roadless area may also be utilized in the winter and spring. In subalpine fir habitats dusky grouse are also utilize areas exclusive of douglas-fir in the Selkirk Mountains (of which the Boulder Park area is part of) and likely occur in those habitats in the analysis area.

Disclose the results of monitoring dusky grouse populations at the Forest Level.

Northern Goshawk Habitat and Surveys

Washington Department of Fish and Wildlife classifies the northern goshawk as a candidate species of concern (<http://wdfw.wa.gov/conservation/endangered/lists/search.php?searchby=simple&search=goshawk&orderby=AnimalType%2CCommonName>). The USFS R6 has recently classified the northern goshawk as a *sensitive species* as of July 15, 2015 (www.fs.fed.us/r6/sfpnw/issp/agency-policy). Although the USFS has completed one goshawk survey of unknown intensity, an additional survey may reveal the presence of nesting birds.

The commenters request that a spatial analysis be completed identifying potential nesting areas along with an in depth goshawk survey.

Please disclose Forest Plan monitoring results for the goshawk.

Mustelids - Pine Marten

For all mustelids, the commenters request that management direction should provide for thriving and resilient populations at the Forest level, not decrease populations to minimum viability as stated by the CNF Forest Plan. The 1988 Forest Plan Standards for Pine Marten include the designation of 160 acres of late successional habitat every 2.5 square miles. While the grid of “connected” stands for Pine Marten, Pileated Woodpecker and MA 1 (old growth) with connecting corridors has been established, the CNF could not supply field verification in the form of plot data to determine which designated areas are actually functioning as the required successional stage (old growth), nor could the CNF provide stand exam data showing the location of old growth stands. In other words there is no way to determine if this grid of late successional habitats will function as required by the CNF Forest Plan. Utilizing habitat that may or may not be functional cannot be used as a proxy for the presence / absence of the [animal itself] pine marten.

The existing grid of LOS stands does not provide adequate suitable habitat to ensure viability of the pine marten. Harvest unit adjacency to MA1 and Pine Marten Areas significantly reduces the ability of these reserves to provide functional habitat for the pine marten. The effects of habitat fragmentation are significant in relation to the probability of marten occupancy. Marten have home ranges that are larger than just the reserves set aside for the CNF Forest Plan. These areas are being rendered unsuitable by the proposed action. Wasserman et al, (2012) found that for the Selkirk Mountains of North Idaho, pine marten:

“.....select habitat at multiple spatial scales, selecting home ranges within unfragmented landscapes with high canopy closure and low road density; and those marten select foraging habitat within late seral, mesic, middle-elevation forests.” Wasserman et al, (2012)

Several Pine Marten areas and the MA1 (old growth) patch are contiguous to proposed harvest units. Wasserman et al exemplifies the negative effects of this fragmentation of pine marten home ranges:

“for example, a patch of late-seral forest in a highly fragmented landscape with low canopy closure is not likely to be utilized.” Wasserman et al, (2012)

Marten occurrence is negatively related to total road density including open, closed and abandoned roads at a 1980m moving window scale:

“An increase in road density from 1.1 km per km² (10th percentile) to 7.2 km per km² (100th percentile) resulted in a decrease in probability of marten occurrence from 53% to 35%. Importantly, our analysis found that the density of all roads, including those closed and abandoned up to several decades in the past, was a higher predictor of marten occurrence than currently maintained roads. This emphasizes the import effects of these so-called “ghost” roads.” Wasserman et al, (2012)

The current road density is 4.55 km/square km (moving window not used) for the analysis area using the total road distance from the proposed action assuming it includes ghost roads. This would decrease the probability of occurrence somewhere in the middle of the 53% to 35% probability of occurrence range. This means that most of the analysis area is unsuitable as pine marten habitat based on road densities alone.

Pine Marten in California:

“relied heavily on the cover of structurally complex forest stands to hunt for food, while avoiding predators such as hawks, owls and bobcats”

Moriarity in USDA (2016) also found that in California, during summer breeding and kit rearing season martens avoided openings and stands treated for fuels reduction.

“...the odds of detecting a marten was 1,200 times less likely in openings and almost 100 times less likely in areas treated to reduce fuels, compared to structurally-complex forest stands.”

PNW Science Findings, Dec. 2016 Likewise, the CNF does not have stand exam data indicating that the hand drawn corridors will function as indicated.

Drawing arbitrary corridors between LOS reserves may be required by the CNF Forest Plan but is dated and is not utilizing the best available science.

The commentors request that an additional analysis should be completed showing connectivity. There are several credible programs that would allow the selection of the best connecting corridors (Corridor Designer and others), and of connectivity between late successional reserves (Circuitscape). That proposed units contiguous and adjacent to pine marten areas be removed or adjusted to optimize pine marten areas and that total road densities be reduced to levels allowing the occupancy of pine marten areas.

Please include Wasserman et al., 2012; Moriarity et al., 2016; Bull and Blumton, 1999; and Hargis et al., 1999 as best available science concerning pine marten biology and management impacts.

High road densities in combination with habitat fragmentation and forest simplification by logging in adjacent areas are rendering the MIS species reserves increasingly unsuitable for maintaining a viable marten population.

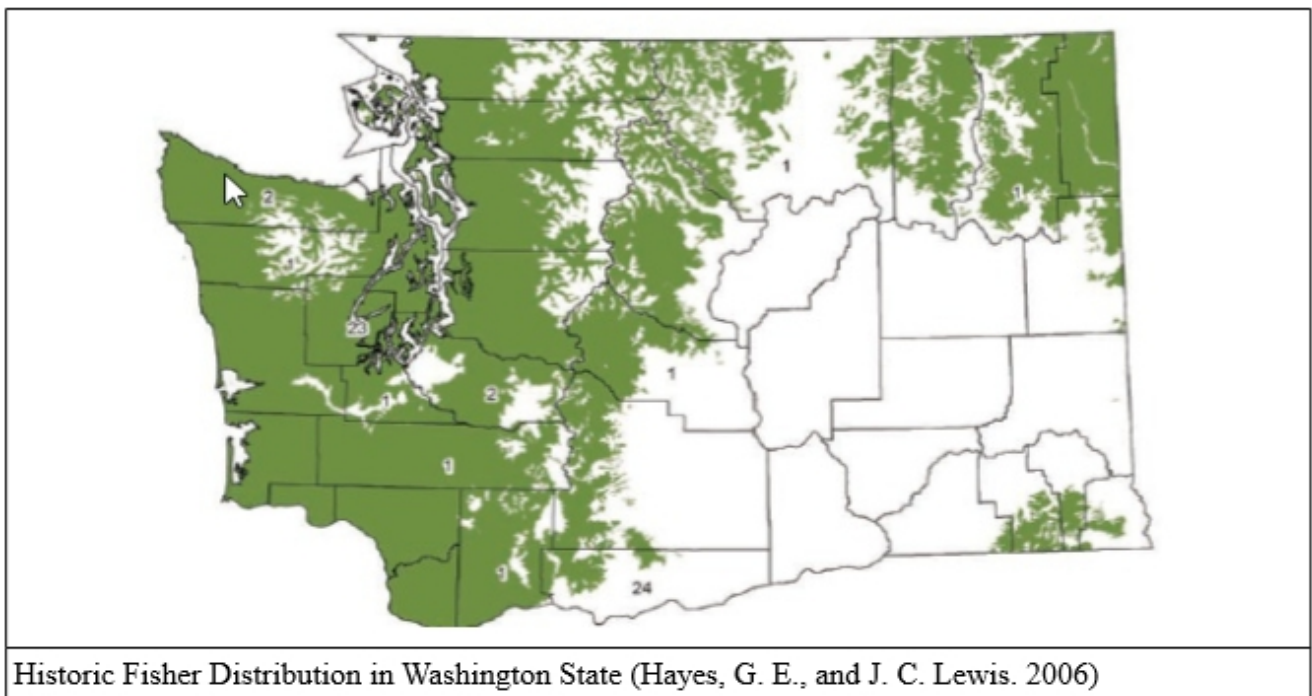
The commentors do not support the construction of any permanent or temporary roads for the project.

We request that total road densities in the analysis area be reduced to 0.5 miles per square mile, that proposed units that are contiguous or near pine marten, barred owl and MA1's be removed or adjusted to optimize pine marten habitat patches. Utilizing commercial thins and regeneration logging adjacent to these areas will reduce structural complexity and result in marten avoidance of these units.

Pacific Fisher (Sensitive / Documented [occurrence], Washington State Endangered)

The fisher historically occurred but may have been extirpated from the analysis area based on a historic range map below.

“Historically, fishers occurred throughout much of the mid to low elevation forested areas of Washington, but they were extirpated from the state by the mid 1900s. The two main causes of the fisher’s decline were over-trapping and loss and fragmentation of forested habitats.” WDFW, n.d. Historic Fisher Distribution in Washington State (Hayes, G. E., and J. C. Lewis. 2006)



There is a documented sighting near Lake Leo, Pend Oreille County, May 02, 1998, located about 16 miles south of the analysis area (WDFW, PHP data query). The Boulder Park analysis area is located in or overlaps the Washington State designated Selkirk Recovery Area as shown below.



Image clipped from the Fisher Recovery Areas in Washington map (Hayes, G. E., and J. C. Lewis. 2006).

The Selkirk Recovery Area in the above image has been removed by WDFW, hoping that fishers would repopulate the Washington Selkirks from adjacent Idaho. Additionally BC has stopped supplying fishers to the coast range because of the increased amount of logging and wildfires, further putting the species at risk <http://vancouversun.com/news/local-news/b-c-suspends-fisher-relocations-to-washington-state-amid-habitat-loss-to-logging-and-wildfires>. However, the fisher is currently listed as a SSS species (Strategic Species) for the Colville NF, not sensitive. <https://www.fs.fed.us/r6/sfpnw/issssp/agency-policy/>

"Strategic species are species that have some sort of information gap and that gap either makes it difficult to manage the species or analyze in project effects analysis. For example, we may not have much information on species habitat, threats, distribution, or how to conserve the species."

It is listed as "D" - documented occurrence on the Colville National Forest. The fisher will be changing from strategic to sensitive on the CNF based on communications with personnel from the Interagency Special Status / Sensitive Species Program (ISSSSP). The commentors suggest the CNF treat the fisher as a sensitive species for this project to avoid controversy, but mainly to prevent loss of potential and existing fisher habitat. The CNF's old growth associated areas, MA1's and travel corridors are clearly inadequate to provide enough habitat to assist in recovery/reintroduction.

Fishers need larger patches of contiguous mature forest habitat than pine martens. The average home range size is approximately 12,200 acres and for a female fisher and approximately 24,300 acres for a male fisher in central Idaho (Sauder and Rachlow, 2014). Considering the entire 53,600 acre analysis area, this ideally amounts to habitat for 1 male and 2 female fishers. Due to these requirements, the connecting grid of MA1 and late successional patches that may or may not be functional is not adequate to provide for fisher.

"Fishers selected landscapes for home ranges with larger, more contiguous patches of mature forest and reduced amounts of open areas. Landscapes that had 50% mature forest arranged in connected, complex shapes with few isolated patches, and open areas comprising 65% of the landscape characterized a forest pattern selected by fishers in our study." (Sauder and Rachlow, 2014)

The proposed alternative severely fragment fisher habitat and will preclude re-introduction or repopulation, violating NFMA direction to avoid causing populations of sensitive species from trending towards listing under the ESA (FSM 2670.22) which is a reasonably foreseeable action. WDFW was not

present or included in the 3 collaboration meetings 2017-18. The Washington State Recovery Plan for Fisher states that:

“Achieving this goal [self sustaining fisher populations] will require collaboration and partnerships among state, federal, and local agencies, tribal governments, and non-governmental organizations.” (Hayes, G. E., and J. C. Lewis. 2006).

The commentors request the following:

- Fisher habitat should be mapped in the analysis area.
- Bait stations and cameras should be used to continually attempt to discover presence of fisher.
- An area closure on trapping be implemented until fisher populations are documented, rebound or are reintroduced.
- Elimination of all poisoning of pocket gophers or other small mammals in plantations to prevent biological magnification and the loss of predatory species.
- WDFW be included in collaboration meetings in relation to reintroducing and recovering the pacific fisher population.

Wolverine (Sensitive / Documented [occurrence], USFWS candidate)

The analysis area may provide wolverine habitat. The commentors suggest that efforts be made to further reduce road densities, eliminate poisoning of rodents in plantations to maintain this area for wolverine dispersal and use.

Canada Lynx (USFWS threatened)

On March 24, 2000, the U.S. Fish and Wildlife Service listed the lynx as threatened in 14 States (65 FR 16052). The analysis area is not delineated as critical habitat, however lesser standards apply to the Lynx Analysis Units that overlap the analysis area.

Kosterman, 2014 finds that 50% of lynx habitat must be mature undisturbed forest for it to be optimal lynx habitat where lynx can have reproductive success, and no more than 15% of lynx habitat should be young clearcuts, i.e. trees under 4 inches dbh. Kosterman, 2014 demonstrates that the LCAS is not adequate for lynx viability and recovery, as previously assumed by the Forest Service.

The USFS does not have stand exam or other vegetation plot data supporting the designation of denning, tree squirrel (a secondary prey species) and primary forage habitat in the analysis area. Selection of these stands seems cursory and cannot be defended or analyzed without vegetation plot data.

Most importantly, the CNF is managing for denning habitats with a low probability of use, by forest simplification, pre-commercial thinning which devastates the snowshoe hare population and removes horizontal cover, shelterwood logging which will remove potential recruitment old growth stands which provide the best denning habitat. While lynx may use other habitats, Montana lynx vastly preferred to den in mature mesic forests (73%) and mature forests (80%). The CNF is not providing optimal habitat for lynx. “Lynx select for horizontal cover and older stands”

“The age of the forest stand does not seem as important for denning habitat as the amount of horizontal structure available, e.g. downed, woody debris (Mowat et al. 2000, pp.274-275; M. McCollough, pers.

comm. 2007, as cited in USFWS 2007, p.19), which provides hiding cover and shelter for kittens. Den sites may be located within older regenerating stands (>20 years since disturbance) or in mature conifer or mixed conifer-deciduous (typically spruce/fir or spruce/birch) forests. In Montana, lynx selected den sites with higher horizontal cover than elsewhere in the animal's home range (Squires et al. 2006, p.24; Squires et al. 2008, p.1502). Seventy-three percent of lynx dens were found in mature, mesic forests. Dens were also located in regenerating mesic forests (18 percent) and boulder fields (7 percent). More recently, Squires et al. (2008, p.1502) found dens in Montana primarily within mature forest stands (80 percent), mid-seral regenerating forests (13 percent), young regenerating stands (5 percent) and thinned stands (2 percent). In Montana, dens were also found in topographically concave or drainage-like areas away from forest edges (Squires et al. 2008, p.1502). In Washington, lynx used Pinus contorta (lodgepole pine), Picea spp. (spruce), and Abies lasiocarpa (subalpine fir) forests older than 200 years with an abundance of downed woody debris for denning (Koehler 1990, p.847). A den site in Wyoming was located in a mature subalpine fir/ lodgepole pine forest with abundant downed logs and a high amount of horizontal cover (Squires and Laurion 2000, pp. 346-347). " Idaho Panhandle National Forests IPNF Forest Plan Revision Chapter III Canada Lynx

The species is further threatened by climate change and actions on private lands in the Boulder Park Analysis Area. The best action is no action in the spruce fir zone due to increasing ecological stressors.

Unique Habitat Components

Please map and identify unique habitat components located in the analysis area and describe potential effects to the habits (open wetlands, rock outcrops, graminoid parks, subalpine meadows, forested slope wetlands, springs, bogs etc.)

Lewis Woodpecker (Sensitive / Suspected [occurrence] for the CNF).

Lewis Woodpeckers occur in riparian areas, ponderosa pine stands and burns. Please map and disclose the effects of the proposed alternative to these species

White-headed Woodpecker (Sensitive / Documented local [occurrence])

This species has local records of occurrence just outside the analysis area (see location map below from ebird) up to 3100 feet elevation. This species has the potential to increase or reinhabit this area if suitable dry site stands are managed to become old growth, through an initial treatment and frequent fire. *Please identify potential habitat and steps to be taken to promote fire dependent old growth ponderosa pine and douglas-fir in a great enough extent to support multiple white-headed woodpecker territories.* Additionally, dry site potential natural communities are expected to increase with climate change. It would be very valuable to project location change utilizing climate change modeling under several scenarios in order to delineate potential future habitat. Please identify existing dry site stands and begin a restoration process by utilizing fire not logging as a restoration tool.

Great Gray Owl (Sensitive / Documented [occurrence] on the CNF)

Please survey for great gray owls and follow the snag management suggestions discussed above.

Gray Wolf (Sensitive / Documented [occurrence] on the CNF)

Locate potential denning and rendezvous areas and refrain from disturbing these areas. Take steps to remove the allotment located in the analysis area to reduce conflict potential. Please discuss the detrimental effects to wolves as the USFS is providing domestic cattle as prey opportunities for wolves in the area which leads to conflict and removal of wolf packs.

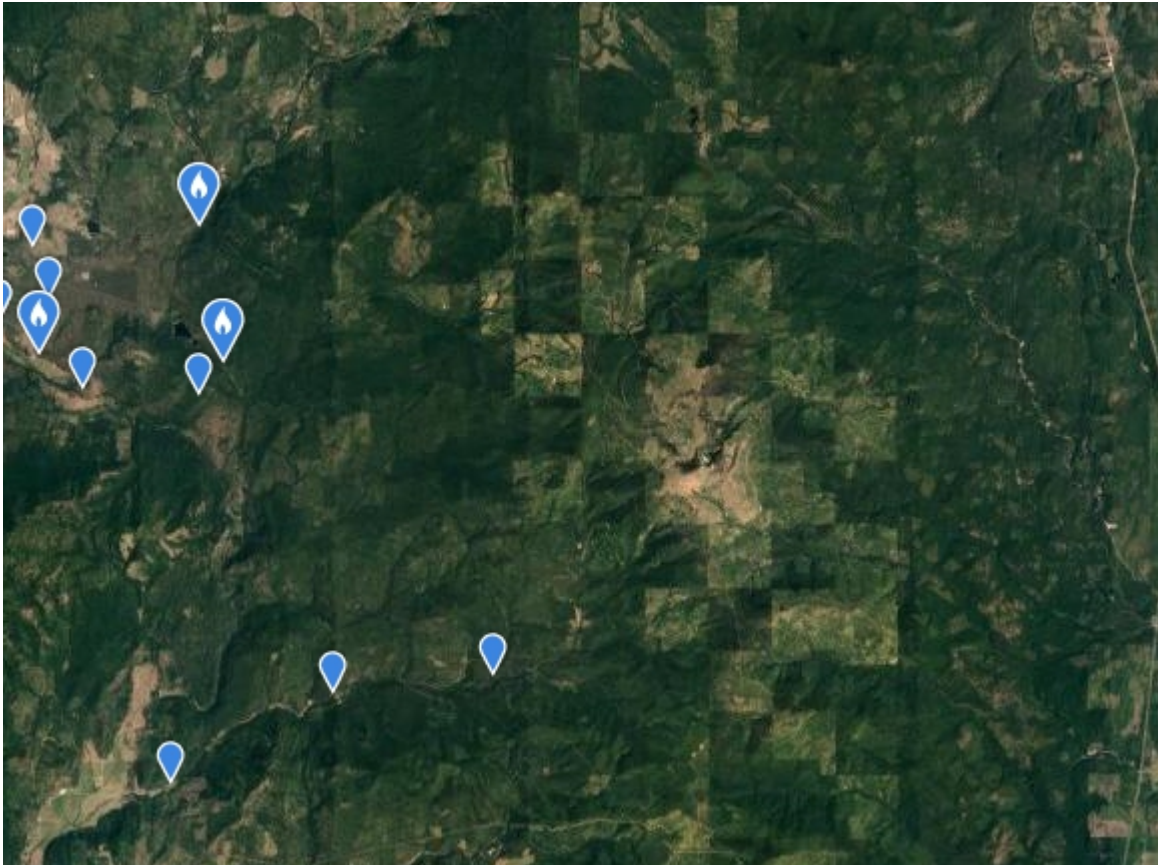


Illustration 3: White-headed Woodpeckers, ebird records, most are older records.

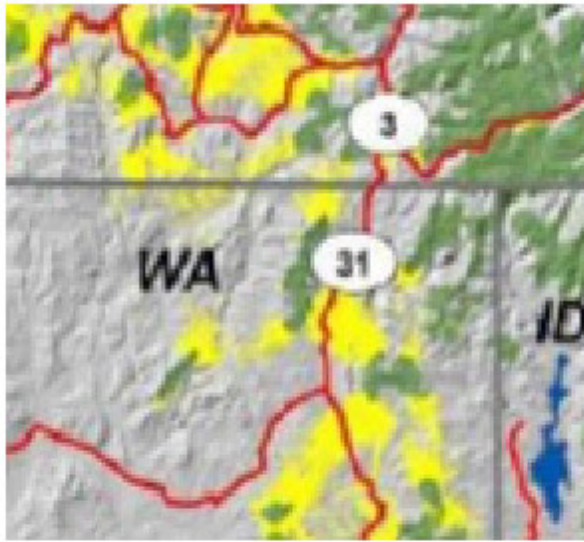
Other Sensitive Species (R6 FS_Final-Sen&Str-List)

Please discuss each fungi, lichen and plant species that occurs in the area in detail and model their habitat in a spatially explicit way to effectively disclose effects.

Grizzly Bear

Grizzly Bears are a threatened species with documented occurrence in the analysis area. It is not in a recovery area currently. The area encompassing the analysis area is called sub population area 83 and is located in the Canada-US Trans-border region. (Proctor, M., Kasworm, W., Servheen, C. 2012, Proctor et al 2015.) Grizzly bear connectivity mapping shows 3 three areas of high linkage potential which connect the Abercrobome – Hooknose Roadless area with the Selkirk Mountains, a roadless area to the south and west and north into Canada (see below). The analysis area lies south of the linkage

zone.



Grizzly Bear Linkage Zones in Yellow (copied from Proctor et al, 2015)

Please discuss the following major points in relation to the grizzly bear.

- Effects of the proposed action including timing of logging in relation to season of use by grizzlies.
- Effects of vegetation management prescriptions in relationship to grizzly bear (Johnson, W., Gautreaux, R. 2008)
- Progress or status towards acquiring land encompassing the linkage zones.
- The commentors propose that this area be designated as a BORZ (Bears out of Recovery Zone) area with appropriate restrictions on road management and timing of activities.
- Please discuss acquiring DNR lands within and adjacent to the Abercrombie-Hooknose Roadless Area. This acquisition would be very valuable for wildlife.
- Please disclose the benefits to the grizzly bear and the environment for the re-introduction of anadromous salmon and trout.

Winter Range

MA 6 & 8 emphasize winter range with uneven aged management in visually sensitive areas and 10 – 20 acres regeneration units in other areas. A GIS – based analysis reveals four major issues: The designation of winter range management areas is arbitrary and capricious. There are many acres of similar slope and aspect that are not included as winter range and likely serve that function to some unknown list of ungulates that winter range is supposed to be managed for (white-tailed deer, elk, moose, mule deer, bighorn sheep?). Unit size may exceed standards for winter range. Contiguous units may not be accounted for in the GIS analysis which increase the size of the logging units. Please discuss proposed activities in winter range in detail, at the stand and local landscape level, model all potential winter range where appropriate for each species utilizing that specific winter range area., including hiding cover, winter range and security currently available in the area as well as during and after the project. Examine alternative effects in relation to the Forest Plan Standards and to lower elevation forested ecosystems in relation to climate change and the potential uphill migration of potential natural communities.

Please analyze each ungulate species separately.

Watersheds, Streams and Fisheries

Beaver

The beaver is a MIS for the CNF. Please take steps to map the existing distribution of beavers in the analysis area, increase the distribution of beaver colonies, including riparian rehabilitation and elimination of trapping by area closure.

Aquatics

During the pre scoping meetings, the USFS could not provide data on streams where cutthroat trout exist free of brook trout that area above barriers. This information was requested by the Kalispel Tribe and myself.

Forest Plan Forestwide Standards and Guidelines for Fish Habitat:

The following are excerpts from the existing forest plan on fish habitat and water quality

*“Protect fish habitat from degradation; rehabilitate habitats where degradation is unavoidable.
Maintain water quality within good biological and State water quality standards:*

Streams

- *Temperature: < 16°C*
- *Activity causing suspended and bedload sediments to accelerate channel changes and/or reduce bank stability will be considered excessive.*

Riparian Management Objectives (RMO) require:

- *Pool Frequency: > 96 pools per mile for streams < 10ft wide; > 56 pools per mile for streams < 20ft wide.*
- *No measurable increase in maximum water temperature.*

Please disclose the Colville National Forest’s record of compliance with state best management practices regarding stream sedimentation from ground-disturbing management activities. Minimum standards for fisheries and riparian management are included in the Forest Plan. Are you meeting all Forest Plan standards and guidelines? If not the project would violate NFMA, NEPA and the APA. Given the dynamic disturbance history of these watersheds, reference conditions are critically important to understand how the condition of stream habitats within the project area relates to conditions across the CNF as a whole. What streams are being used for reference conditions on the CNF?

Please take steps to bring the TMDL listed segment of Tacoma Creek up to standards and present a detailed analysis of the watershed conditions, including effects of the proposed action to all watersheds. Given the dynamic disturbance history of these watersheds, reference conditions are critically important to understand how the condition of stream habitats within the project area relates to conditions across the CNF as a whole.

Logging, post-harvest fuel treatments, road construction and increased traffic under the proposed action

would lead to unavoidable increases in sediment delivery to streams. The USFS must demonstrate that these increases are consistent with all regulatory mechanisms, and not cumulatively significant. Wildfire suppression, timber harvest, road construction, rural residential use, and livestock grazing are on-going and are anticipated to be ongoing and reasonably foreseeable future actions in the cumulative effects analysis area. Because of these impacts, we believe the USFS needs to prepare an EIS for this project.

Please solicit and disclose comments from the Washington Department of Ecology regarding the impact of the Project on water quality and Please disclose the Colville National Forest's record of compliance with the additional monitoring requirements set forth in previous DN/FONSI's and RODs which occurred in the Limestone/Silver project area for all issues.

Inland Columbia Basin Redband Trout and Westslope Cutthroat Trout (CNF Sensitive Species)

Please identify streams that area currently occupied, were they exist upstream of barriers, and streams that historically were occupied and take measures to enhance their habitat.

Bull Trout (Endangered)

The Pend Oreille River upstream of Boundary Dam is designated Bull Trout Critical Habitat as is Tacoma Creek. Please discuss how streams draining from the analysis area into the Pend Oreille River contribute to or can be rehabilitated to provide for bull trout spawning habitat. Failure to address water quality and TMDL standards for the streams draining into the Pend Oreille River may impact critical Bull Trout habitat and violate the ESA. The area is also impacted by a cattle allotment, and high road densities in and out of RHCA's. Please discuss effects in detail.

Impacts to RHCA's are extreme and will be exacerbated by the proposed action and the grazing allotment.

There are 37 (36.99) miles of roads within the 8.9 square miles of RHCA's in the project area, this is a road density of 4.16 miles of assumed open roads per square mile of RHCA (Map 1, Appendix B) This was derived from the CNF roads dataset, not the dataset where the CNF derived 370 miles of roads in the project area (This dataset is under FOIA). The district is taking little action to remove major roads from the RHCA of a stream listed as Bull Trout critical habitat. Please refer to comments for the grazing exclosure CE that are attached, the NEPA for that is still in progress.

Logging in RHCA's is proposed to increase tree growth and provide woody debris. Excluding on large riparian unit, the project proposes to log 1098 acres in RHCAs including clearcut (shelterwood) logging. It is likely that some of these areas were not excluded from the proposed logging map due to preliminary stand identification in a gis (see map below). It is not clear if the CNF plans to log in the headwater stream RHCA's based on the gis analysis of impacts to RHCA's. However, the Newport RD has repeatedly emphasized that it wants to log in RHCA's to the detriment of fish and wildlife to provide volume to timber industry (Areas are proposed in Limestone-Silver, Boulder Park and Sullivan Creek EA).

In addition to logging there is also a cattle allotment in the area please discuss the effects of cattle grazing and trampling on water quality and fish habitat.

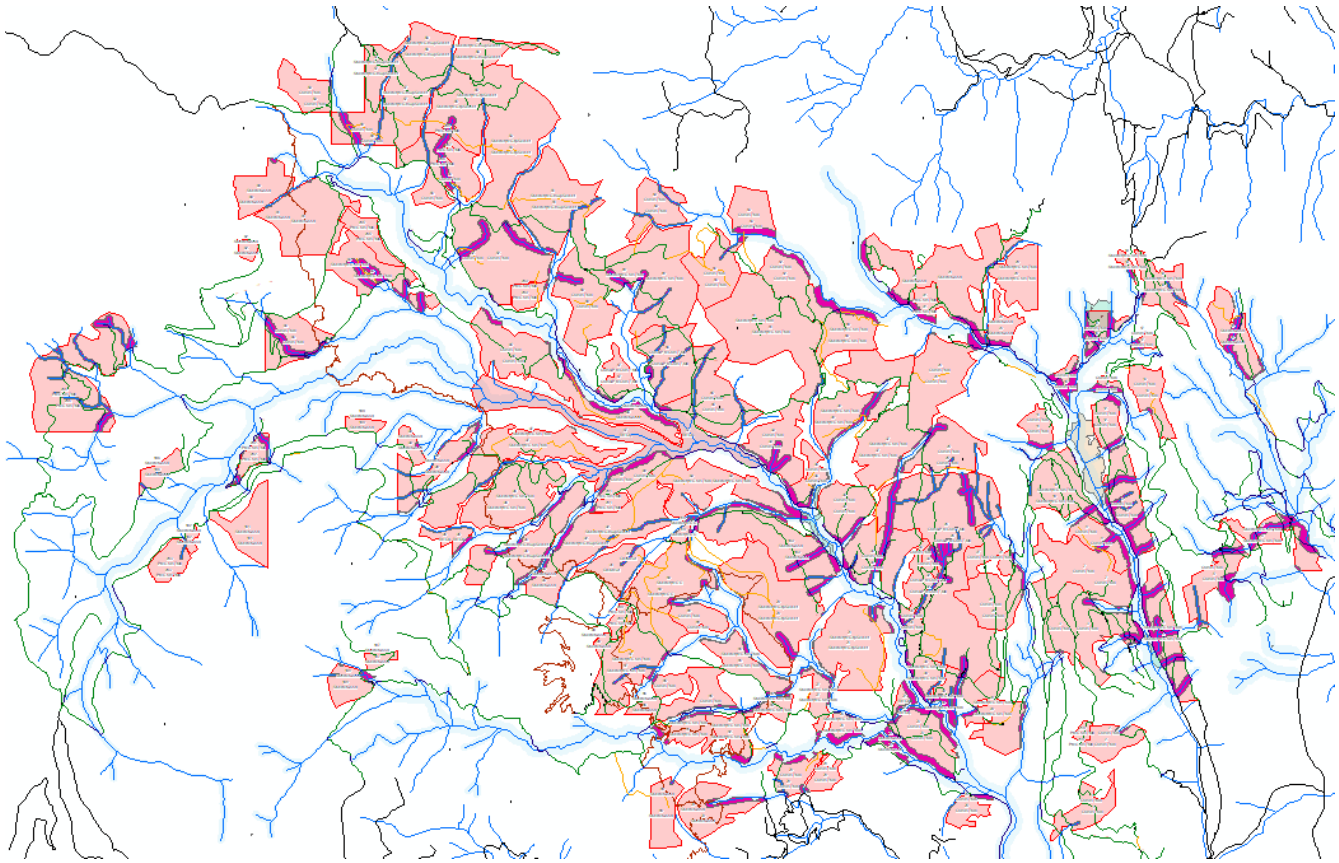


Illustration 4: Logging proposed in RHCA's is colored magenta.

Requests

First and foremost, rewild the landscape. If the USFS refused this request the following is requested. This list is partial and does not include all the requests in the text above.

- Fire refugias (areas on the landscape where stand replacing fire is less likely) be delineated.
- Old growth be quantitatively mapped and recruitment stands be designated to the 30% level.
- Carbon offset purchases be required.
- Electric logging equipment be used.
- The cattle allotment be bought out or terminated (see attached comments for that CE).
- No logging in subalpine habitats except for daylight clearing around whitebark pine.
- Please provide stand exam data showing which areas allocated for late successional species actually meet the criteria and are therefore functioning.
- Please provide site specific data on which allocated areas are being currently being utilized by pileated woodpeckers for nesting, disclosing the effectiveness of the late successional area allocations.
- The commentors request that three-toed woodpecker habitat be mapped and that spatially explicit habitat modeling be utilized to display the existing condition and disclose the effects of the alternatives.
- The commentors request that host – parasite relationships involving western larch and dwarf mistletoe be retained in all units and areas of dwarf mistletoe concentration be mapped and

retained.

- Disclose the results of monitoring primary excavator habitat at the Forest Level and disclose the snag densities in the Project area, and the method used to determine those densities.
- Please spatially model potential and suitable dusky grouse habitat for existing condition and alternatives including projections into the future based on a range of climate models.
- Please conduct an additional northern goshawk survey as repetitive surveys may reveal missed active nesting territories.
- The commentors request that a spatial analysis be completed identifying potential nesting areas along with an in depth goshawk survey.
- Please disclose Forest Plan monitoring results for the goshawk.
- The commentors do not support the construction of any temporary roads for the project.
- That total road densities in the analysis area be reduced to 0.5 miles per square mile to provide reduced human disturbance for abundant and resilient wildlife populations especially old growth associated ones..
- The commentors request that proposed units that are contiguous or near pine marten, barred owl and MA1's be removed or adjusted to optimize pine marten habitat patches. Utilizing commercial thins and regeneration logging adjacent to these areas will reduce structural complexity and result in marten avoidance of these units.
- Fisher and pine marten habitat should be mapped in the analysis area.
- Bait stations and cameras should be used to continually attempt to discover presence of fisher.
- An area closure on trapping be implemented until fisher populations are documented, rebound or are reintroduced.
- Elimination of all poisoning of pocket gophers or other small mammals in plantations to prevent biological magnification and the loss of predatory species.
- WDFW be included in collaboration meetings in relation to reintroducing and recovering the fisher population.

Signed,

s/s

Paul Sieracki

Geospatial Analyst/ Wildlife Biologist.

[REDACTED]

Mike Garrity

Executive Director

Alliance for the Wild Rockies

P.O. Box 505

Helena, MT 59624

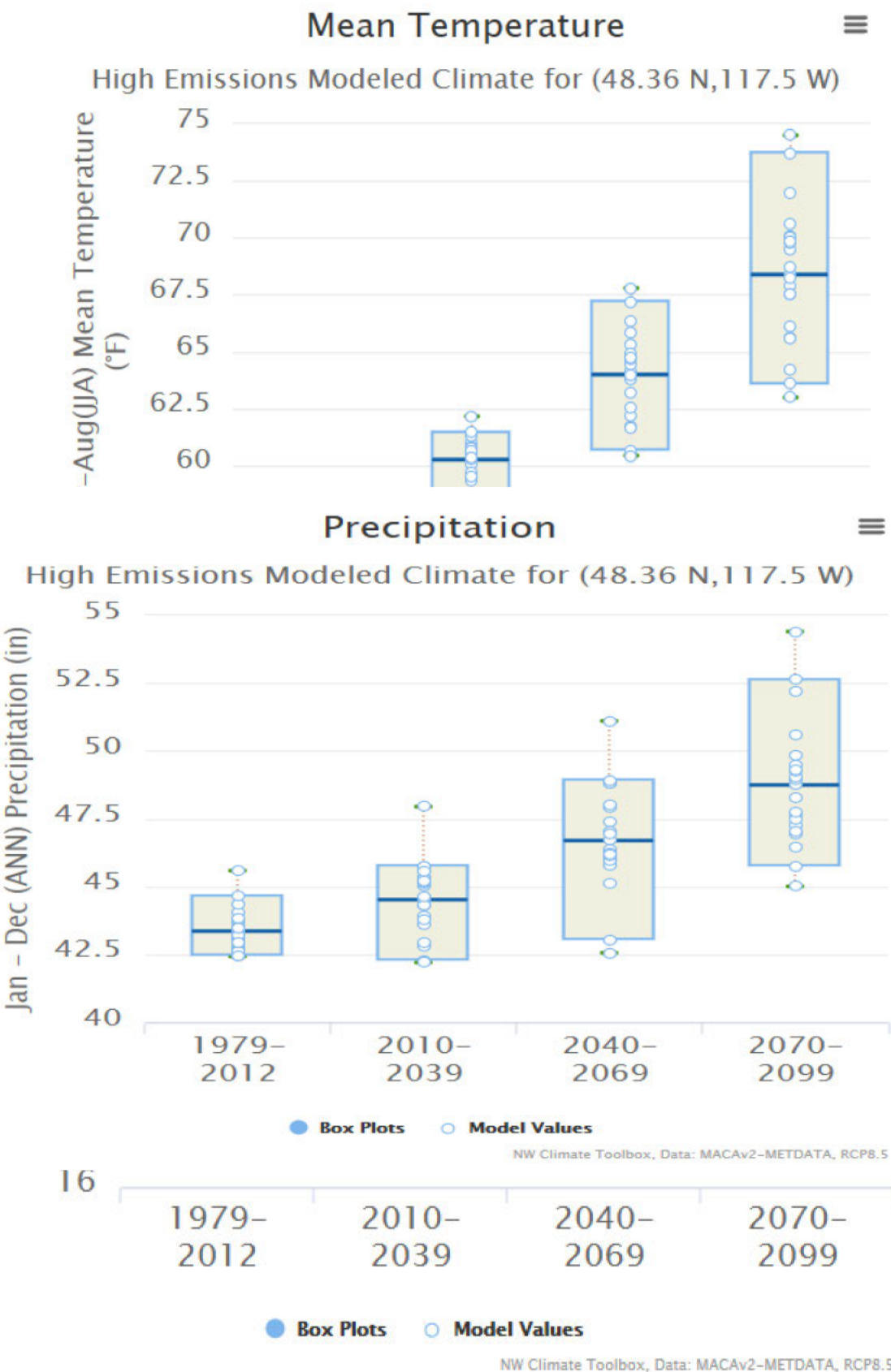
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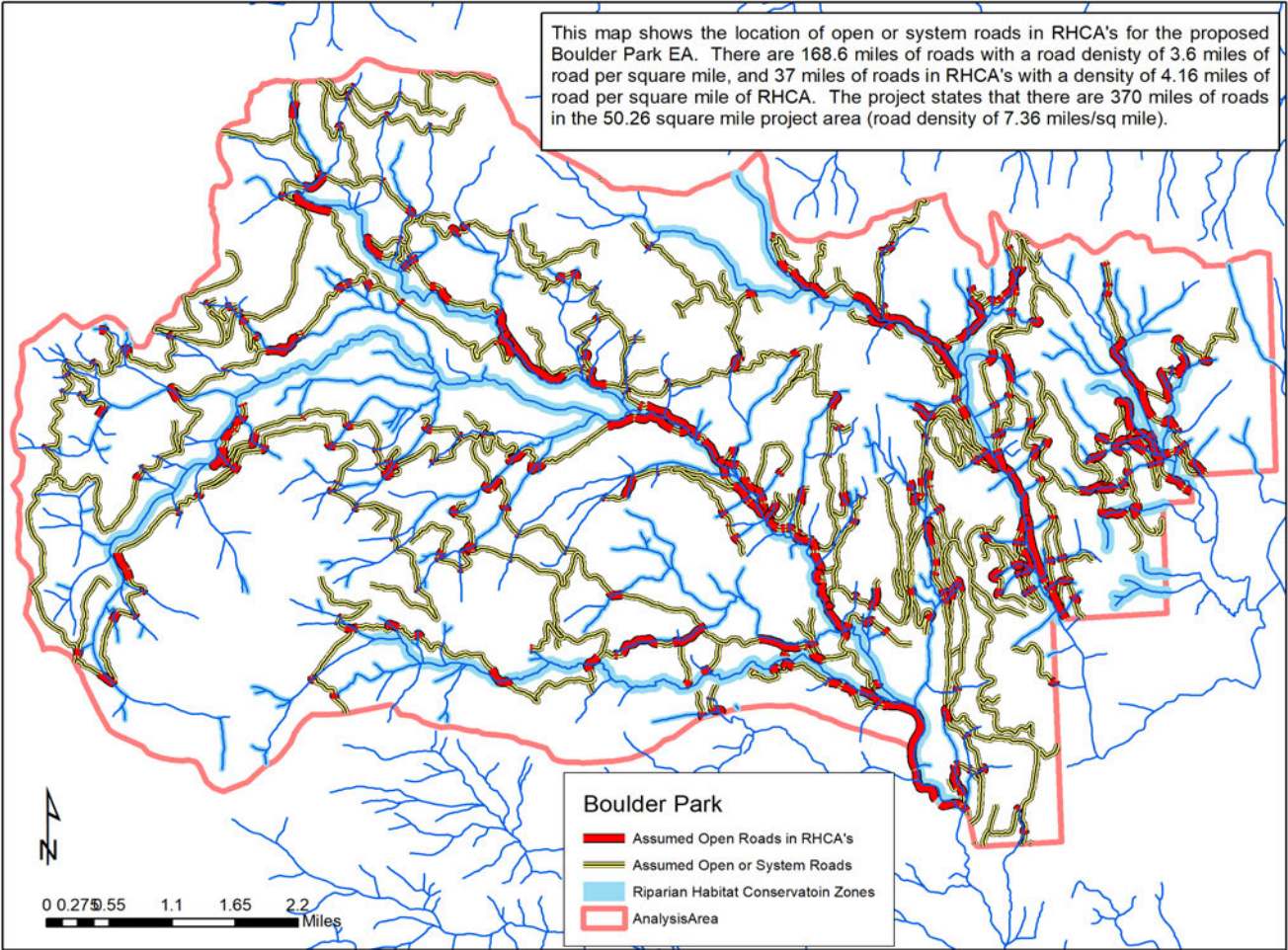
Tracy Morgan

GIS Analyst

[REDACTED]

Appendix B, Climate Projections, source <https://climatetoolbox.org/tool/Future-Climate>
Location: 48.36° N, 117.50° W
Mean Temperature, JJA 8.5





Paul Sieracki



May 6, 2017

RE: Comments Packer Meadow Riparian Pasture and Meadow "Enhancement"

Dear District Ranger Gayne Sears and Michelle Paduani:

1. First and foremost, consider purchasing or discontinuing the allotment. Since we are entering the 6th great extinction of life on earth, conserving biota must take priority, not habitat destruction caused by cattle nor profit.
2. For all actions involving this permit, including use of government vehicles and personnel, office equipment, allotment equipment and personnel, meetings and all other forms of transportation and processing (eg fencing, etc) that consume CO₂, including cattle, people, atv's and horses please require the purchase of carbon credits from a reputable organization where land is bought to reserve and accumulate CO₂, and made off limits to logging and grazing.
3. This area is in the Analysis Area of the proposed Boulder Park CE or EA. Stacking CE's or NEPA documents to avoid cumulative effects disclosure may be illegal.
4. WETLANDS – Please map all wetland and wetland types using protocols established by Washington State or the appropriate agency.
5. WETLANDS – After detailed mapping of wetlands including soil types, please locate wetlands in the proposed fenced area that need rehabilitation.
6. SUBSOILING. Please include a detailed map denoting where subsoiling may occur and its effect to wetland soil types, sensitive plants and animals.
7. TES PLANTS. Please complete a detailed inventory and map locations of all TES plants in the Allotment and the proposed fenced area. Having cattle graze of any intensity could be detrimental to sensitive plants in the area.
8. TES PLANTS. Please complete detailed analysis for EACH species found in the allotment and how damaged habitat and plants is going to be restored. Each species had different life histories, using guilds or other species assemblages is unacceptable
9. PARASITISM. Please discuss the effect of increased parasitism by brown headed cowbirds associating with cattle and how it will impact local avian biodiversity in a professional quantitative manner.
10. TES AND MIS animals. Please completed a detailed inventory of TES animals and all biota, and their habitat in the allotment and proposed fenced area.
11. WDFW Priority Bird Species. Please survey for and quantitatively analyze the habitat for WDFW's Priority Bird Species that may occur in the area. Great Blue Heron, Cavity Nesting Ducks, Harlequin Duck, Northern Goshawk, Bald Eagle, Lewis', Black-backed, White-headed, Pileated woodpeckers etc (<http://wdfw.wa.gov/publications/00026/>).
12. COMPLETE SPECIES INVENTORY. Please disclose the effects of this action to all biota (complete species inventory) that inhabit the area, including insects (see the dragonfly survey results) displayed in the attached map.
13. BEAVERS. The CNF Forest plan requires the Forest to maintain or enhance beaver habitat, nothing proposed in the CE will do that.

14. BEAVERS. Please consider an area closure on beaver trapping to promote the re-establishment of beaver colonies.. that is an example of enhancement, not fencing and short intense grazing regimes.
15. INFISH – Please exclude cattle from the RHCA to protect wetlands, fisheries, wildlife from abusive practices by ranchers and Forest Service Range personnel.
16. INFISH – There are miles of open roads within the INFISH buffer zone, please identify areas where these can be eliminated or moved out of the zone. See the Local View of Roads in the RHCA map below.
17. INFISH buffers, requested under a FOIA for Boulder Park EA are erroneous, they did not reflect the required buffer distances from water bodies and wetlands. This is just another example of sloppy work by the Colville National Forest.
18. RHCA DELINEATION CORRECTION. Please complete a spatially explicit delineation of RHCA's in the allotment utilizing INFISH guidelines AFTER wetland are mapped.
19. NEGATIVE EFFECTS OF CATTLE TO NATIVE SPEICES. Please discuss the change to local biota from the suite of cattle and associated native and non native organisms including micro-organisms, parasites and insects.
20. ODONATA. Please identify effects to the dragonfly population inhabiting the wetland downstream of the “enhancement” identified from the Wildlife Observation dataset for the Boulder Park. Be species specific. (see map below).
21. FURBEARERS. The proposed project will continue to negatively affect “furbearers”. A CNF standard requires that negative effects must be mitigated. Please provide a list of “furbearers”, disclose what “furbearers” utilize the area, which ones are extirpated (fisher?) and what mitigation of negative effects is planned, including reintroduction of fisher or other extirpated species.

“Other forest management activities that may adversely effect furbearer habitat or populations are responsible for mitigation of those effects.” CNF FP Standard.
22. NURTIENT LOADING. Please discuss sedimentation and nutrient loading of the streams and wetlands from trampling and defecating cattle.
23. OTHER MEADOWS/WETLANDS. There are many other meadow/wetland openings in the general vicinity upstream, please exclude cattle from these areas and all riparian zones within the allotment. Why is that not being proposed in those places? Elimination of the allotment is key.
24. The short duration/high intensity grazing plan proposed is inadequate to protect riparian habitat, and the plants and wildlife that utilize it.
25. Please analyze (quantitatively) the cumulative effects of climate change, grazing, roads and proposed logging (Bolder Park) to the streams and water bodies in the allotment.
26. CLIMATE CHANGE. Please discuss the effects of a warming and drying climate and the increased frequency of extreme weather events (drought, flooding) on the entire allotment. The discussion must be based on models and use quantitative analysis techniques.
27. CLIMATE CHANGE. Plan for the future. Please discuss the effects from cattle and logging in Packer Meadows to the Yellow-Billed Cuckoo (Federal Endangered and under consideration in WA State) considering what is going to happen to the local bioclimatic envelope.

“The greatest threat to western Yellow-billed Cuckoos, including those that bred in Washington, has been the loss or degradation of riparian habitats caused by dam construction, flood control practices, commercial and residential development, changes in farming and ranching practices, and nonnative plant invasions. Agricultural pesticide use, which may affect prey

abundance as well as the birds' health, is a potential additional threat.

“<http://wdfw.wa.gov/publications/01881/>”

Please model the habitat changes in riparian areas in the allotment due to climate change in reference to this species (eg. Quantify when suitable climate conditions may occur using a suite of climate change regimes.)

In conclusion, the only option is to eliminate this allotment. This project “enhances” nothing, it is not only the cattle allotment but the significant length of roads located in the RHCA that need to be eliminated or moved. In the context of global climate change, habitat destruction and species extinction, anything but eliminating this allotment is an irresponsible act by the USFS.

Clearly, because of all the issues, and the intent to avoid cumulative effects analysis by stacking NEPA documents, an EA or EIS is required for the entire allotment and the Boulder Park EA.

Sincerely,
Paul Sieracki
Geospatial Analyst/Wildlife Biologist

Proposed Fencelines

