Data Submitted (UTC 11): 3/25/2020 7:00:00 AM
First name: Harry
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Organization:
Title:
Comments: Attached are my comments on the Draft Nez Perce-Clearwater Forest Plan.

ATTACHED COMMENTS BELOW

March 25, 2020
1228 Ponderosa Drive
Moscow, Idaho 83843

Zach Peterson
Forest Planner
Nez Perce-Clearwater National Forests Supervisor[rsquo]s Office
903 3rd Street
Kamiah, ID 83536

Subject: Proposed Nez Perce-Clearwater Forest Plan and DEIS Comments

Dear Zach,

The opportunity to comment on the Revision of the Nez Perce-Clearwater Forest Plan and Draft DEIS has been severely compromised by the release of at least ten other proposals (Hungry Ridge, Gold Hill, Black Skull, Lost Toboggan, Hisloc Fuels, Green Horse. East Saddle, Stray Creek, Section 16 and Dead Laundry) during the same timeframe. Allowing only 120 days for review of the Draft Forest plan which you released over the Christmas holidays and then releasing all of these projects within the same time frame, suggests that you really don[rsquo]t want meaningful comment on any of these proposals.

Personally, I have only been able to comment on most of these projects because I am retired. I could have never responded to all of these proposals when I was working and doubt most other members public have the time to keep up with your barrage of proposals. Please extend your Forest Plan comment period another 60-days or increase the time available to comment on any outstanding proposals such as Section 16 or Dead Laundry.

Overall, I was very disappointed in the quality of the plan and the assumptions that were used in the analysis. The range of alternatives has been significantly narrowed and is inadequate to represent the concerns of many segments of the public. There are very few measurable standards and guidelines that provide assurances to the public that the Forest Service is actually protecting water quality, soils, cultural resources, sensitive plants, fisheries and wildlife habitat. The proposal is largely a plan to increase logging, prescribed burning and motorized access with little regard to other resource values.

For example, there are 1.5 million acres of roadless habitat on the two Forests that have the potential to be added to the wilderness system, but the largest wilderness designation that has been considered (Alternative W) only adds 856,932-acres. This is despite the fact that a large number of comments were received by the planning team in support of a citizen alternative designed by the Friends of the Clearwater that would have designated all existing roadless areas as proposed wilderness.

Timber harvest levels are very excessive in two alternatives, and incredibly Alternative X actually exceeds the sustained yield limit by 20 million board-feet per year over the next two decades. Alternative X includes no wilderness or wild and scenic river designation, and would actually remove proposed wilderness designations that were identified in the existing 1987 Forest Plans. Why is Alternative X is even being considered, when the other side of the coin (wilderness designation of all existing roadless) is already off the table? The range of your alternatives already removes 643,000-acres of the existing roadless areas from any possibility of being designated as wilderness.

Components of alternatives W, Y and Z appear to be very mismatched. For example, Alternative W includes the most proposed wilderness designation, but it also includes timber harvest levels at the maximum sustained yield level of 241 million board feet. It is the only alternative that includes the Weitas Creek roadless area as proposed wilderness. Weitas Creek is the largest existing roadless area on the Nez Perce-Clearwater NF and contains Cayuse Creek which is a nationally known blue-ribbon fishery for cutthroat trout. Alternative W would allow the use of chainsaws and other equipment (administrative use of drones and aircraft), practices that are usually not permitted in existing wilderness areas. Timber harvest would be allowed in areas proposed for wilderness designation as long as it is conducted under the guidance of the Idaho Roadless Rule. This doesn[rsquo]t make any sense; timber harvest and road construction will cause detrimental impacts that will likely preclude congressional wilderness designation.

Alternative Z harvests the least amount of timber 60-80 board feet per year and includes the largest number of streams for designation under the wild and scenic river act. One would think this alternative would have the most area proposed for wilderness designation, but wilderness designation is only 569,755-acres. Weitas Creek is not proposed as wilderness in Alternative Z, but several other areas (Pot Mountain, Rawhide, West Meadow Creek) are proposed for wilderness. Alternatives W and Y do not propose wilderness designation in these three areas.

Similar to Alternative W, several uses that are not normally permissible in wilderness areas are permitted under Alternative Z. These include: timber harvest under the guidance of the Idaho Roadless Rule, temporary road construction, administrative use of chainsaws and aircraft. In addition, Alternative Z allows the use of mechanized travel (bicycles), motorized over snow vehicles, and both administrative and recreational use of drones. What are you thinking? Wilderness is supposed to be a place where one can seek solitude and reflection without the whine of snowmobiles and the buzzing of drones.

Alternative Y does curb some of these non-traditional uses in proposed wilderness areas, but timber harvest and temporary road construction is still permitted under the guidance of the Idaho Roadless Rule. This Alternative would harvest 120-140 MMBF and designate 309,332 acres of proposed wilderness. Chainsaws and administrative use of aircraft and drones are also permitted. Wilderness designation under Alternative Y is very similar to the existing Forest Plans, with the exception that East Meadow Creek and Rapid River on the Nez Perce National Forest have been added to the proposal and additions to the Selway Bitterroot Wilderness recommended in the 1987 Clearwater Forest Plan near Powell have been dropped. Adding East Meadow Creek and Rapid River seems appropriate for this Alternative, but I can see no reason to drop the Selway Bitterroot additions. It is also unclear why more proposed wilderness is not being considered under this alternative since timber harvest is much less than Alternative W.

It appears that very little consideration has been given to the incorporation of measurable guidelines and standards into the alternatives as requested by the Friends of the Clearwater and others. Most of the standards, guidelines and desired conditions are very subjective and rely on the opinion of the line officer to make the call if the standards, guidelines and desired conditions are being achieved. Personal opinions vary by individual and provide little assurance to the public that their concerns are being addressed. For example, there is virtually no guidance in the proposed Forest Plan for the protection of wildlife habitat. Several previously identified sensitive species (wolverine, black-backed woodpecker, pygmy nuthatch, Townsend[rsquo]s big eared bat, long-eared myotis, long-legged myotis, fringed myotis, etc.) and management indicator species (goshawk, pileated

woodpecker, and pine marten) previously identified by the regional forester or in the within the current Forest Plans are not even considered in the wildlife analysis.

Consider the following desired conditions from the wildlife section of the proposed Forest Plan.

[ldquo]FW-DC-WL-02. Ecological conditions in the Nez Perce-Clearwater planning area provide for, or contribute, to the persistence of populations of species of conservation concern over the long-term with sufficient distribution to be resilient and adaptable to stressors and likely future environments.[rdquo]

[ldquo]FW-DC-WL-03. The arrangement of vegetation patches ranges widely in size, shape, and structure to provide connectivity for wildlife. Patches are juxtaposed across the landscape, forming a landscape pattern consistent with natural range of variation. These patterns vary by habitat type group, slope, aspect, and topographic position. Species are able to move freely across and between habitats, allowing for dispersal, migration, genetic interaction, and species recruitment.[rdquo]

These measures offer no real measurement of achievement and likely will have little influence on forest management projects. What exactly are the ecological conditions that contribute to the persistence of species of conservation concern and what is the arrangement of vegetation providing connectivity for species movement? With no measurable components, the desired conditions basically come down to a subjective evaluation of ecological conditions and the adequacy of the vegetation patches to allow for dispersal, migration, genetic interaction and species recruitment.

For example, the fisher is a species of conservation concern that avoids open areas and home ranges generally have less than 5% open habitat (Sauder and Rachlow 2014). In contrast, to the needs of this species the proposed Forest Plan alternatives have an objective of maintaining 5-15% of the warm moist Potential Vegetation Group in grassland/shrub types and 15-25% of this type in forest openings with an average DBH between 0 and 4.9 inches DBH. Objectives for treatment of vegetation in proposed Alternatives W and X are over 42,000 acres in MA-3 and over 23,000 acres in MA-3 every five years Most activity on these alternatives will be from timber harvest due to the high timber volumes associated with these alternatives. Alternatives, Y and Z decrease the amount of timber harvest, but incorporate more prescribed burning.

All of this activity is bound to create numerous open areas across the Nez Perce-Clearwater National Forest, remove mature forest stands and cause forest fragmentation. It doesn[rsquo]t help that the proposed Forest Plan also allows the creation of openings that are 375-acres in size and there are no restrictions on placing such openings next to existing openings. Although there is a requirement that 50% of the warm moist habitat be maintained in stands over 25 meters tall on a Forest wide basis for the fisher, there are no restrictions on the amount of open areas that can occur in fisher home ranges or no requirements for maintaining a significant amount of old growth and mature forest preferred by the fisher. The proposed plan only includes the unmeasurable subjective language that vegetation be [ldquo]arranged in complex, highly connected patterns at the 20-40 square mile landscape scale[rdquo] and that [ldquo]Some stands of tall forests, distributed across the warm moist potential vegetation type, provide a high prevalence of large trees and snags of 20 or greater inches diameter at breast height[hellip].[rdquo]

The fisher example represents a problem the Forest Service has had for several years in regard to the management of sensitive and other indicator species. Schultz (2010) eloquently captured this in a review of Forest Service practices for maintaining populations of native and desired non-native species as required under the National Forest Management Act. She concluded that [ldquo]the lack of management thresholds allows small portions of habitat to be eliminated incrementally without any signal when the loss of habitat might constitute a significant cumulative impact.[rdquo]
My specific comments on the Proposed Forest Plan Revision follow:
[emsp]

Forest Plan

Section 1.3 Management Areas.

I found the proposed Forest Plan approach to management areas and geographic areas to be very simplified and limited in scope. The approach generally does not suggest that an integrated approach to resource management is being considered by the planning team. For example, there are only three management areas proposed in the Revised Forest Plan (Wilderness, back country restoration which primarily focuses on timber harvest and prescribed burning, and front country timber harvest). There are no management areas that focus on high value fish and wildlife areas, big winter range, scenic corridors, areas of cultural significance, municipal watersheds or high value recreation sites. I believe the 1987 Clearwater and 1987 Nez Perce Forest Plans did a much better job of describing management area direction than what is being considered in the Revised Forest Plan. The three management areas that have been included in the Revised Plan are much too simplistic and not sufficient for management of the complex landscape of the Nez Perce-Clearwater National Forests.

I suggest a revised management area strategy based on system that would be similar to the 1987 Clearwater and Nez Perce Forest Plans. For the most part I believe with some modification that the existing designations of the 1987 Clearwater Forest Plan would work well and that those designations could be modified to accommodate current management allocations on the Nez Perce National Forest. This of course would need to be done to provide consistency of management allocations on both Forests in the new Forest Plan.

Having worked on the Clearwater National Forest, I am more familiar with existing management allocations on that Forest. For the most part, I believe the preparers of the 1987 Clearwater Forest Plan did a pretty good job of describing and designating management areas on the Clearwater National Forest and see no need to change to the simplified system outlined in the Revised Forest Plan. Similar allocations were developed in the Nez Perce Forest Plan. The Revised Forest Plan should only change those things that are not working in the current Forest Plan. There is no need to modify parts of the current plan that are working well.

While I can see the need for consolidating and updating management area descriptions, I can see no possible explanation for abandoning existing management areas as outlined in the existing Forest Plans for the simplistic approach outlined in the Revised Proposed Action and DEIS. My suggestions for revised management areas in the new Forest Plan are based largely on the existing Clearwater Forest Plan and the existing Nez Perce Forest Plan. I believe these management areas would do a much better job of representing management objectives and resource issues across the Nez Perce-Clearwater than what you are proposing. My recommendations for possible management areas to be used in the Revised Forest Plan are listed below:
High Value Dispersed Recreational Sites [ndash] I believe high value dispersed recreation sites deserve a special management designation. These areas are not wilderness candidates, but they receive a high level of recreational activity and should not be included in the timber base. The Elk Creek Falls recreation area (MA-A2 in the Clearwater Forest Plan [ndash] 790-acres) is good example of an area that receives heavy recreational activity, but does not qualify as roadless and is not suitable for high levels of timber management and prescribed burning.

Such areas do not fit well into the simple three category management area system proposed in the Revised Forest Plan. Besides Elk Creek Falls, I am sure there are other similar areas across the two Forests. Places like Lolo Pass, the Upper Basin Interpretive Trail, Colgate Licks, Jerry Johnson Hot Springs, Wilderness Gateway, Pittsburgh Landing, etc. come to mind.

Visual Travel Corridor [ndash] Different management practices are needed in the visual travel corridor and it is likely that vegetative practices will need to be modified to protect the scenic values in these areas. Identification of these areas in a separate management area is important to meet visual quality objectives and account for the different management practices that will be necessary to achieve both visual management and vegetative

treatment objectives. Revised Forest Plan Management Areas MA-2 and MA-3 primarily stress timber harvest and prescribed burning and are insufficient to adequately address the issues associated with maintaining scenic objectives. This management area is identified in the current Clearwater Forest Plan as Management Area A4 (47,466 acres) and in the existing Nez Perce Forest Plan as MA-13 (11,500-acres), MA-14 (1,765-acres) and MA-17 (104,529 acres). I believe all of these management areas could be consolidated to a single management area that emphasizes scenic values.

Developed Recreation and Administrative Sites [ndash] I believe these facilities should be identified as a separate management area as was done in the existing Clearwater Forest Plan (MA-A7 - 1,752-acres) and the existing Nez Perce Forest Plan (MA-2 -1600 acres, and MA-7 [ndash] 400-acres). Management is much different on administrative sites and within developed Recreation Areas and the management area descriptions in the Revised Forest Plan are inadequate to manage these facilities.

Historical Travel Corridor - This allocation is largely associated with the historic Lolo Trail on the Clearwater National Forest. In the existing Clearwater Forest Plan, it is identified as MA-A6 (16,175 acres). Because of the National Historical significance of this area, I believe it is important to maintain this area as a separate management area. Lumping the area into MA-1 with wilderness and wild and scenic rivers does not seem appropriate since management practices are completely different in the two areas. Unlike existing and proposed wilderness areas, the historic travel corridor has a major road running through the middle of it. This creates a much different set of circumstances than management of wilderness and proposed wilderness areas.

Designated Wild and Scenic River Corridors [ndash] The Clearwater National Forest has two wild and scenic river corridors, the Lochsa River and the Middle Fork Clearwater (MA-A7, 23,606-acres). The Nez Perce National Forest includes portions of the Middle Fork of the Clearwater River that it shares with the Clearwater NF and the Selway River (21,602-acres), the Salmon River (9,241-acres) and Rapid River (4,218-acres). The existing Nez Perce Forest Plan lists the Wild and Scenic River corridors as Management Area 8. Again, I believe the portions of these rivers that occur outside of wilderness and proposed wilderness boundaries have special management needs that differ significantly from wilderness management objectives.

Proposed Wild and Scenic River Corridors [ndash]I support inclusion of several additional rivers into the wild and scenic river system and believe these areas need to be managed in a unique management area to protect their integrity until they can be designated by Congress.

Designated Wilderness [ndash] There are three designated wilderness areas on the Nez Perce-Clearwater National Forest and most of this wilderness is located on the Nez Perce National Forest. The existing Clearwater Forest Plan identifies the Clearwater[rsquo]s portion of the Selway-Bitterroot Wilderness Area as 259,165-acres in Management Area B-1. The existing Nez Perce Forest Plan identifies 560,088-acres in the Selway-Bitterroot, 200,464 acres in the Gospel Hump Wilderness and 105,736 acres in the Frank Church River of No Return Wilderness. These are identified as MA-9 in the Nez Perce Forest Plan.

Recommended Wilderness [ndash] I support considerable expansion of lands currently considered roadless into the recommended wilderness category. If existing roadless areas are not moved into the recommended wilderness category, I believe it is appropriate to have other options rather than just moving the lands into the [ldquo]back-country[rdquo] restoration category (Revised Forest Plan MA-2). Other options include managing for dispersed recreation in an unroaded setting (Existing Clearwater Forest Plan MA-A3), management high value summer range (Existing Clearwater Forest Plan MA-C1) or managing for key fisheries habitat (Existing Clearwater Forest Plan MA-C6). The back-country restoration option under the Idaho Roadless Rule does not offer sufficient protection to recommended wilderness to protect their integrity until Congress can act.

Dispersed Recreation in an Unroaded Setting

This management area was designed to accommodate recreational activity in unroaded settings that were not selected for recommended wilderness. In the Clearwater Forest Plan, 78,000-acres were in Management Area A3 (Elizabeth Lakes, Moose Mountain, North Lochsa Slope, Lochsa Face and Coolwater Ridge [ndash] 78,000 acres). The Nez Perce National Forest did not have a similar management area, but I suspect there are roadless areas on the Nez Perce National Forest that could be highlighted with this management designation as an alternative to recommended wilderness.

High Value Big Game Summer Range - This Management Area is described in the Clearwater Forest Plan as Management Area C1 (45,100-acres). It occurs in older burns in the Fourth of July drainage and is part of the Weitas Roadless Area. It is managed without roads and objectives are to maximize big-game summer potential.

Alternative W proposes to include the Weitas Creek Area as recommended wilderness, but this is not done in Alternatives X, Y and Z. I am in strong agreement with the proposal to designate Weitas Creek as recommended wilderness, but see no reason why this concept could not be expanded to other roadless areas across the Forest instead of the back-country restoration theme that does not emphasize wildlife and fisheries values.

Key Fisheries Habitat - This Management Area is described in the Clearwater Forest Plan as Management Area C6 (102,440 acres). It occurs three high value drainages for fisheries (1 - Hungery /Fish Creek, 2 - Cayuse/Toboggan Creek and 3 [ndash] Colt Creek. The management area is managed without roads and objectives are to maximize fisheries habitat potential. The Nez Perce National Forest has a similar management area in their existing Forest Plan (MA-11, 126,846 acres) for Rapid River, the East Fork of Meadow Creek and Silver Creek.

As previously discussed, I support the recommendation of Alternative W to add the Weitas Creek Roadless area as recommended wilderness. Cayuse and Toboggan Creek are located within the Weitas Creek Roadless area. Hungry/Fish Creek and Colt Creek are not in the Weitas Creek roadless area, but these streams are included in Alternative W as recommended wilderness, but are not recommended for wilderness in any of the other alternatives.

Rapid River and the East Fork of Meadow Creek are recommended as wilderness in all alternatives except X. I support the recommendation to recommend Rapid River and the East Fork of Meadow Creek for wilderness protection. I also support keeping current management direction in key fisheries watersheds the same as the existing Forest Plans (MA-C6 and MA-11), unless the management is upgraded to recommended wilderness. I do not support back-country restoration in roadless areas unless improvements are directed toward wildlife and fisheries improvements as outlined in current Clearwater Forest Plan Management Areas C1 or C-6 and current Nez Perce Forest Plan MA-11.

Big Game Winter Range - I believe the lack of identification of big game winter range is a significant and important oversight of the Revised Forest Plan. Without proper identification of these areas and special management measures designed to protect wintering big game, there is a high potential for detrimental impacts to wintering big game.
Both of the existing Forest Plans identified two types of winter range primarily associated with winter requirements for elk. On the Clearwater these were termed MA-C3 and MA-C4. Management Area C-3 (39,000 acres) was generally associated with brush fields and open grasslands on steep south facing low elevation slopes. In the existing Nez Perce Forest plan this type of winter range was identified as MA-16 (151,683 acres).

Management area C4 (94,000-acres) in the Clearwater Forest Plan was identified as low elevation forested areas were some timber harvest could occur with the overall objective of improving big game winter range. In the existing, Nez Perce Forest Plan this area was identified as MA-15 (72,003-acres) and MA-18 (10,468-acres).

I believe these areas need to be updated and refined based on monitoring and current information that is likely

available from the Idaho Fish and Game. For example, I know that no big game winter range was identified on the Palouse Ranger District in the 1987 Clearwater Forest Plan. Animals are obviously wintering on the Palouse District in lower elevations along the Palouse, Potlatch and Elk River drainages. Similarly, there are likely other winter range oversights and inclusions in the 1987 plans that need to be updated and refined. However, I do not support the idea of completely dropping winter range management areas as is the current proposal in the Revised Forest Plan.

Moose Winter Range - The existing Nez Perce National Forest Plan has a unique management area for the management of moose winter habitat (MA-21, 45,140-acres). Unlike most of the Clearwater National Forest, it is common to have older forest stands with a yew understory. These stands have been shown to important wintering areas for moose (Pierce and Peek 1984). I believe this management area needs to be updated to ensure winter range protection of all stands with yew understories and older forest canopies that are important for wintering moose. I do not support the total elimination of this management area.

Big Game Summer Range/Timber Management - These areas include most of the existing roadless areas that were scheduled for timber management in the existing Clearwater Forest Plan (MA-C8S, 207,500-acres). It is similar to the back-country restoration alternative proposed in the Revised Forest Plan. I don[rsquo]t think that timber management is appropriate for existing roadless areas and believe that all existing roadless areas should be modified to either A3 (Non-motorized Dispersed Recreation in an Unroaded Setting), B2 (Recommended Wilderness), C1 (Key Big Game Summer Range) or C6 (Key Fishery Habitat).
Timber Management - These areas include the primary timber producing areas on the Clearwater and Nez Perce National Forests. In the existing Forest Plans they are identified as Management Area-E1 (503,567 acres) on the Clearwater NF and Management Area-12 (539,884 acres) on the Nez Perce National Forest. These are largely the same front-country lands that are listed as MA-3 in the Revised Forest Plan and DEIS.

Research Natural Areas and Special Areas - These areas are identified as management area M1 (8,292-acres) in the existing Clearwater Forest Plan and MA-6 (8,015-acres) in the Nez Perce Forest Plan. Because of the unique nature of these areas, I believe this should have been done in the Revised Forest Plan.

Riparian Areas - Riparian Areas were originally listed as MA-M2 (107,263-acres) in the existing Clearwater Forest Plan. In the existing Nez Perce Forest Plan riparian areas are listed as MA-10 (11,859-acres). The 1987 plans were modified by PACFISH and INFISH. These areas need to be removed from the timber base and managed according to PACFISH and INFISH guidelines. I do not support the changes in riparian management that are outlined in FW-STD-RMZ-01 where thinning and small regeneration harvest units (less than 1-acre) would be allowed in the outer half riparian management zone.
Municipal Watersheds [ndash] The existing Nez Perce Forest Plan had two management areas for municipal watersheds. These included Wall Creek for the town of Clearwater (MA-22, 2,042-acres) and Big Elk and Little Elk Creek for the town of Elk City (MA-23, 7,061-acres). The existing Clearwater Forest Plan did not have a management area for municipal watersheds, but the town of Elk River has subsequently established a municipal watershed in Elk Creek. I believe a separate management allocation is warranted to help protect these streams as drinking water for these three communities.
Unsuitable [ndash] The Clearwater National Forest identified 92,000 acres of unsuitable habitat in the existing Forest Plan. The Nez Perce Forest Plan identified unsuitable habitat as a separate Management Area (MA-1, 19,388 acres). Unsuitable habitat was generally considered as an inclusion in other management areas in both Forest Plans. I agree with this approach.

Section 1.3 Geographic Areas.
I support the concept of Geographic Areas and agree that the Gospel Hump, Lower Salmon and Pilot Knob areas deserve special management consideration. However, I suggest different management strategies other than those outlined in the proposed Forest Plan for these three areas.

In the Gospel Hump Area, I believe all existing unroaded areas including Lower Johns Creek should be proposed for addition into the Gospel Hump Wilderness Area. In the remaining areas that have already been developed by timber management I support the concept of restoration for aquatic species, but don[rsquo]t believe that specific targets for timber harvest and other terrestrial management activities are necessary to achieve aquatic conservation goals. Goals need to be based on the needs of aquatic species and not on the amount of timber harvest, pre-commercial thinning, hazardous fuel treatment and removal of hazard trees along roads. It would seem activities like correcting known sediment sources, decommissioning existing roads or improving in channel and riparian habitats would be more appropriate needs for aquatic species.
The Lower Salmon area should be a special management area where the unique species found in this area take precedence over timber harvest, mining and recreational activities in project planning. The Forest Service should fund more research to determine both habitat requirements and management threats to the rare endemic snail species that are found here.
I agree that all future development activities in the Pilot Knob area needs to be approved by the Nez Perce Tribal Executive Committee. I also suggest that non-renewal of communication site and facility leases be extended to all alternatives and not just be limited to Alternative Y.

FW-GDL-TE-01. Why is the protection of uncommon elements limited to habitats that protect critically globally imperiled (G1) species and globally imperiled (G2) species? Several other at-risk species such as the American Pika and Coeur d[rsquo]Alene salamander, that you even mention in this guideline, are not globally imperiled and utilize these habitats. Uncommon elements such as mineral licks, talus slopes, fractured wet bedrock, rocky outcrops, scree slopes, waterfalls, and geologic inclusions should be protected regardless of the global rank of the species that utilize these elements. What sorts of protection will be applied when these uncommon elements once they are located? For example, will no harvest buffers be maintained around the areas and if so, how large will these buffers be?

Section 2.1.3 Forest lands. I believe the Nez Perce [ndash]Clearwater National Forest needs to re-evaluate the need for so called [ldquo]restoration[rdquo] in the new Forest Plan Revision Alternatives. There appears to be a misconception that stands are densely overstocked due to fire suppression and I believe this is driving management actions toward solutions that are in my opinion ecologically unsound. The [ldquo]idea[rdquo] that stands are somehow overstocked due to recent fire suppression is only applicable to a small area of the Forest in the Warm Dry PVT, but the concept appears to be driving the management prescriptions across the entire Nez Perce [ndash] Clearwater.

In every biophysical setting there seems to be a perception that stands are in need of restoration by removing small diameter Douglas fir, grand fir and western red cedar. The whole idea of [ldquo]back-country restoration[rdquo] (MA-2) seems to be driven almost entirely by this concept, when in reality most stands in these areas are quite healthy and at normal stocking levels. Yes, the amount of white pine is less, but given the introduction of white pine blister rust that is to be expected. If you want to [ldquo]restore[rdquo] these unroaded areas, introduce more prescribed fire and plant some rust resistant white pine and whitebark pine in the openings you create. Don[rsquo]t schedule a bunch of logging and build several miles of so called [ldquo]temporary[rdquo] roads in the name of [ldquo]back-country[rdquo] restoration. It[rsquo]s like cosmetic surgery for [ldquo]Miss America[rdquo]! NOT NEEDED!!

I have serious questions regarding your analysis of the range of Natural Range of Variability and modification of those ranges by the Forest Management Team into Desired Conditions. The analysis relies on backward projections using the SIMPPLLE model and rudimentary data from the Bitterroot Forest Reserve establishment reports (Leiberg 1900) and other forest inventory reports that were completed around 1937. Information from these initial inventory reports was summarized by Losensky (1994) to project forest pre-settlement conditions prior to the arrival of European settlers (circa 1900 reference period). The analysis also utilizes potential vegetation types identified by (Jones 2004) and a variety of other GIS layers to establish a 150 by 150-meter raster grid across the Nez Perce [ndash] Clearwater NF.

The SIMPPLLE model is then run for 70 decades (full model) or a subset of the 4 driest decades (dry model). Model results are then reported by tree species and size classes and the results are regarded as the historical range of natural variability. This is possible because the SIMPPLLE model is a stochastic model that can incorporate random events such as a wildfire ignition, insect attack or insect infestation. Modeled wildfires, insect attacks and disease can spread to neighboring raster polygons based on existing condition of the adjacent polygon and model weather patterns. Various model rules attempt to emulate the natural occurrence of these events.

Many assumptions have to be incorporated into such a complex model and those assumptions are particularly problematic when there is very little historical data on which to base the initial condition. The large size of the required data input is also very problematic. You have used numerous GIS layers to identify conditions in each individual raster polygon and errors are bound to exist in each of these layers. The accuracy of your data is very questionable and your predictions of the historical range of variability likely lack the precision you claim in your analysis.

Most problematic is subsequent conversion of the SIMPPLLE model results for the Historical Range of Natural Variability to Desired Conditions based on a completely subjective analysis. For example, you have significantly increased the Desired Condition for the amount of ponderosa pine well beyond your own predictions of the Historical Range of Variability in all potential vegetative types. For example, in the moist Bitterroot uplands, the Historical Range of Variability for ponderosa pine was 1% according to your own analysis and the current condition is 1% ponderosa pine, yet the desired condition varies from 5-20% ponderosa pine in the Forest Plan dependent on management area.

Warm Dry PVT. Your idea of understory encroachment is most applicable to this PVT, but even here your thinking appears to be very cloudy. Removal of small diameter understory trees with a focus on grand fir would likely be an appropriate treatment, but your emphasis on wholesale conversion to ponderosa pine dominance types does not make any sense. You have a goal of converting 50-65% of this area to the Ponderosa Pine dominance type when the current condition is only 24% and your own Historic Range of Variation on breaklands was only 42-44% in this PVT.

This seems very unrealistic in the relatively moist climates of the Nez Perce [ndash] Clearwater National Forest. It is likely that Douglas fir played a much more dominate role than you suggest in this PVT and that historical stands in the Warm Dry PVT were composed of a mixture of Douglas fir and ponderosa pine. Losensky (1994) reported cover types in Section M332A were approximately 20.7% Ponderosa Pine and 27.2% Douglas fir in 1900. Douglas fir is a thick barked species that is relatively resistant to understory fire and older trees would have survived understory wildfires much like older Ponderosa pine. It should be noted that Douglas fir dominance types are currently almost twice as common as Ponderosa Pine in this PVT.

Your desired condition is only for 10-35% of the landscape in older forests exceeding 20[rdquo] + DBH. In forests that are dominated by ponderosa pine and understory fire regimes at frequent intervals as you suggest, this number should be much higher. It would not be unrealistic to expect that 35-60% of this PVT was composed of older stands exceeding 20+ inches historically. Losensky (1994) reported 58.2% of the ponderosa pine stands in Section M332A were composed of over-mature forest greater than 150-years of age in 1900.

Warm Moist PVT. Your concept of understory encroachment appears to have gone most astray in the Warm Moist PVT. According to your numbers only 3% of this PVT is composed of ponderosa pine, western larch and white pine, but your objective is to convert 40-90% of the PVT to these three species. Your objectives suggest that you would reduce grand fir, Douglas fir and western red cedar to 12-35%. Currently these three types compose 89% of the PVT.

Such wholesale conversions are very risky and make no sense from an ecological perspective. There is a good reason why 65% of this PVT is currently composed of grand fir and western red cedar. Both of these species find prime habitat in this PVT and historically they always made up a significant component of the mixed species stands that are common in this PVT. Their presence does not indicate a need for [ldquo]restoration[rdquo]. In fact, western red cedar is one of the longest lived and most resilient species found on the Nez Perce/Clearwater National Forests. Western red cedar has few problems with insects and disease and historically old growth cedar stands where the hallmark of stable stands that lasted for hundreds of years on the Nez Perce - Clearwater.

The warm moist forest types of the Clearwater and Nez Perce Forest are generally competition-based systems that develop after large scale stand replacing fire. Stand density is usually not the driving factor in the initiation of these large-scale fires that generally occur at intervals of 250-300 years and under drought conditions such as those that occurred in 1910 and 1933. Intolerant species like western white pine and western larch have an initial advantage in these systems due to fast growth rates that allow them to capture the site and outpace the growth of other more tolerant species like grand fir, Douglas fir and western red cedar. Ponderosa pine, while present, is generally out competed in all but the driest locations in this system.

White pine and larch can dominate the site for long periods of time, but they are gradually replaced by more tolerant grand fir and western red cedar on more northerly aspects. On southerly aspects Douglas fir has an advantage due to its greater tolerance of drought and intermediate shade tolerance. White pine is not favored on southerly aspects due to moisture requirements, but western larch does well. The introduction of white pine blister rust changed this dynamic and gave a greater advantage to grand fir and cedar especially on northerly aspects.

Unlike, the ponderosa pine system most of the competing trees would have been present at the time of stand establishment and stands would have changed overtime due to competition, blowdown, and insect and disease attacks. Understory fire would have also had some influence, but it is not a major driver like it is in the ponderosa pine system. Except for past harvest operations and the introduction of blister rust, this system pretty much operates as it did historically. Overtime, white pine may make a comeback as foresters develop and plant rust resistant stock and the tree develops resistant mechanisms on its own. However, a strategy that relies heavily on white pine is unrealistic given current situation with blister rust.

The fact that these systems always had high densities of trees is well documented by Haig (1932) in his description of the white pine type years ago and long before the effects of fire suppression was considered a major issue. He reported that [ldquo]The extremely rapid decrease in number of trees with increasing age is strikingly apparent. On good sites (site index 60) the total number of trees per acre drops from 4,700 at 20 years to 720 at 80 years, and to 390 at 120 years. The number of trees also decreases rapidly with increase in site index.[rdquo] On excellent sites (Site index 70) Haig found an average of 2,800 trees per acre over a diameter of 0.6 inches in diameter at 20 years of age, on fair sites (site index 50) Haig[rsquo]s tables show approximately 7,800 trees per acre over a diameter of 0.6 inches DBH at age 20 and on poor sites (Site Index 40) he found an 11,500 trees per acre at age 20.

Clearly, the idea of understory encroachment is not an applicable in the moist cedar habitat types that predominate in the Warm Moist PVT. Tree species found here like cedar, grand fir and white pine have made very little genetic investment in mechanisms to survive fire. Instead they rely on fast growth and extensive canopies that allow for light capture in densely stocked stands.

I agree that the retention of disease-free white pine should be included in harvest prescriptions and planting of disease resistant stock practiced. However, a strategy that emphasizes white pine as the primary component of most stands is highly questionable given the current status of white pine blister rust. White pine is subject to an introduced pathogen that has resulted in catastrophic losses across the species range and we don[rsquo]t know

how that pathogen might respond to climate change.

In the Warm Moist PVT your desired condition is to have only 10-35% of the PVT composed of stands exceeding 20[rdquo] + DBH inches. Again, this appears to be an underestimate for an area that is dominated by moist habitats that seldom burn except in large scale stand replacing fire events. Trees grow quickly on these sites and stand replacing fires generally occur at intervals of 250-300 years or longer as evidenced by historical logging photos and large diameter old growth trees than can still be found on the Forest. Assuming trees can reach 20[rdquo] + DBH in as little as 100 years on these sites (Haig 1932) it is not unrealistic to suggest that 35-60% of the historical stand in this PVT would have had stands exceeding 20[rdquo] + inches.

Cool Moist PVT. Your objectives in this PVT are similar to those you have described for other PVTs in that you hope to favor intolerant western larch, white pine and whitebark pine at the expense of sub-alpine fir and spruce. The existing condition is that these three intolerant species have no representation in the cool moist PVT and subalpine fir and spruce compose 71% of the existing stands. You would decrease the amount of subalpine fir and spruce to 15-35% by increasing western larch, white pine and whitebark pine by various amounts in the different management areas. For example, in management area MA-3 you would increase the amount of white pine and larch to 15 to 35% and whitebark pine to 2-10%. In MA-2 you would increase white pine and larch to 5 to 15% and increase whitebark pine to 10-20%.

It is likely that the cool moist PVT will be found mostly in existing roadless areas and in most cases, there has not been a lot of existing logging. Wildfire is the primary change agent here and both stand replacement and mixed severity fires are common. Because of high elevations and reduced rates of decay, fuels tend to accumulate in greater amounts in this PVT. Lodgepole pine is also an important species component of this PVT and you suggest increasing the amount of lodgepole pine from the existing level of 15% to amounts from 20-35% dependent on management area.

Your management strategy would generally target stands in the 5-14.9[rdquo] inch size class in this PVT. You would decrease stands in this size class to smaller the size class of 0-4.9[rdquo]. The desired range would be 15-40% which would be up from the existing condition of 7%. You recommend little or no change for forest size classes above 14.9[rdquo] which are already at your objectives.

Once again, I have some serious reservations about your strategy which is basically to increase intolerant species, create more young forests, and log more roadless areas. In the name of restoration, you have decided to promote conversion to western white pine and whitebark pine in a PVT where they never were very common. The cold moist PVT was never a stronghold for western white pine, and whitebark pine is generally found at higher elevations in the Cold PVT. Both species are subject to white pine blister rust, which casts doubt on your management strategy. You intend to remove subalpine fir and Engelmann spruce that better characterize this PVT and stands in the 5-14.9[rdquo] DBH size class that could develop into the older stand structures that are needed. According to your numbers, only 9% of this PVT is in the 20+ inch size class and 14% in the 15-19.9[rdquo] size class.

Cold PVT. In this PVT the major focus appears to be on increasing the amount of whitebark pine. I agree that this PVT is the most likely area where the species could be located. I support efforts to increase whitebark pine resistance to blister rust and could support efforts to help to establish this species on an experimental basis. However, I think your desired composition of 35-50 % whitebark pine is unrealistic and has the potential to compromise wilderness and roadless values. I base this observation on the fact the PVT currently contains no stands dominated by whitebark pine, and my previously stated concerns about trying to manage a species that has been severely impacted by a non-native pathogen. None of this PVT should be in the commercial timber base or assigned to MA-3. Prescribed burning and subsequent planting of rust resistant whitebark pine should be the primary treatment prescription in this PVT.

MA2 and MA3-DC-FOR-10. This desired condition for intolerant species old growth types, suffers from the same ecologically challenged assumptions that are common in the PVT discussions. Old growth stands on the Nez Perce - Clearwater are going to trend to more tolerant species over time and this is the natural condition in most stands. When stands are located on cedar and western hemlock habitat types they will gradually move towards a greater percentage of these species. Such stands provide valuable wildlife habitat and are sources of great aesthetic inspiration. These are the stands which have inspired the whole concept old growth retention and they don[rsquo]t need to be limited in favor of old growth stands that contain more intolerant species!

MA3-DC-FOR-12. -This section displays the objectives for timber harvest and prescribed burning by the different alternatives. Treatment acreages are displayed by management area and potential vegetation type (PVT). I have summarized the data and compared it to the information in Appendix B of the DEIS and the overall acreage totals for each management area. There appear to be serious discrepancies between the information in the Proposed Forest Plan and DEIS Appendix B.

According to DEIS Appendix B Table 13 there are 1,217,683 acres in MA-3, but not all of this acreage is suitable for timber management. Most of the unsuitable acreage is found in interspersed riparian areas and other special designations such as research natural areas, areas of historical significance and municipal watersheds. The acreage suitable for timber production varies slightly by proposed alternative, but is generally around 960,000 acres (Table 1).

The objectives for vegetation treatment (primarily with timber harvest) under Alternative W within Management Area 3 are to treat 12,740-acres per year in the four identified PVTs. Under Alternative W there are 964,225-acres suitable for timber production in MA-3. This means the entire suitable acreage in Management Area 3 would be treated in approximately 76-years. Thus, most older stands (15-19.9[rdquo] and 20+[rdquo] DBH stands) would be increasingly confined to unharvested portions of MA-3 over the next several decades as stands are treated under the guidance of the Proposed Forest Plan. Seventy-six-year-old stands are not likely to reach larger size classes and even if they do it is unlikely that such stands would have important stand characteristics such as an abundance of downed logs, decayed trees and snags that are generally important to a variety of wildlife species.

Given the past history of extensive harvest in Management Area 3 (including riparian areas) and level of activity proposed under Alternative W, it appears that it will be very difficult to meet objectives for the retention of older stands and other resource values in MA-3. For example, the abundance of young stands will not provide mature and old growth habitat for species like the fisher. Prime fisher habitat is generally associated with MA-3. This will be even more difficult under Alternative X, which treats 13,340 acres each year. Alterative X would harvest the entire suitable acreage within MA-3 in less than 73 years.

Alternative Y, harvests 7,660-acres each year and would regenerate the entire suitable acreage in approximately 124-years. Alternative Z, harvests 3,920-acres every year and would regenerate the entire suitable acreage in approximately 245-years. Management objectives for the retention of older stands in MA-3 would likely be better achieved under these two alternatives.

According to DEIS Appendix B [ndash] Table 13 [ndash] Vegetation and Timber Analysis, there are 1,489,735 acres in Management Area-2. Dependent on the selected Alternative some of these areas could be moved into Management Area -1 as recommended wilderness (Table 1). The Forest Plan objectives for timber harvest and prescribed fire under Alternative W in Management Area 2 is 5,340-acres per year. Similarly, it is estimated that Alternative X would allow timber harvest and prescribed fire every five years or 4,680-acres per year. Alternative Y would treat 7,500-acres each year and Alternative Z would treat 7,280-acres each year. The Proposed Forest Plan does not identify the how treatments would be split between burning and timber harvest, but it can be expected that more timber harvest would be required under Alternatives W and X, due to the higher anticipated timber volumes associated with these two alternatives.

DEIS Appendix B [ndash] Table 53 displays expected harvest outputs for the various alternatives and the expected treatment acreages to achieve those outputs based on the PRISM model. These numbers do not match the values presented in the Proposed Forest Plan. According to DEIS Appendix B [ndash] Table 53 - Vegetation and Timber Analysis it would require 20,800 acres of regeneration harvest per year under Alternative W to achieve an output 178 MMBF. Alternative X would require a slightly reduced acreage (20,694-acres) to produce the same timber output. This is presumably due to reduced habitat standards under this alternative.

As has been previously discussed, the Proposed Forest Plan suggests 12,740-acres will be harvested per year in MA-3 under Alternative W and 13,340-acres per year under Alternative Y. It is unlikely that areas suitable for timber production within MA-3 would be able to support more timber harvest under these two alternatives since timber harvest is already being planned on a 75-year rotation. By necessity, additional harvest has to come from the existing roadless areas (MA-2) or harvest within riparian corridors.

If the information in DEIS Appendix B is accurate, an additional 8,060-acres of regeneration harvest would be required in MA-2 to achieve a volume of 178 MMBF according to the PRISM analysis. If 241 MMBF is to be harvested as outlined for Alternative W in the Proposed Forest Plan, then even more harvest (28,162-acres) would be required. This would mean that 15,422-acres would need to be harvested in MA-2 or riparian areas to achieve the PRISM outputs.

In Alternative W, there are 632,803 acres outside of proposed wilderness in Management Area 2. Harvesting of 8,060-acres per year would treat this entire acreage in 79-years and harvesting 15,422-acres per year would treat this entire acreage in 41-years. If the data in presented in DEIS Appendix B -Table 53 is accurate the proposed volumes associated with Alternative W becomes an impossibility.

Similar problems can be anticipated for Alternative X, but since there is no proposed wilderness, more harvest in MA-3 and lower standards it is more likely that timber volumes can be achieved. Alternative X has 1,489,735 acres in MA-2, harvest in MA-3 is 13,340 acres, and the required harvest in MA-2 is 7,354-acres per year for 178 MMBF and 17,003-acres per year in MA-2 for 261 MMBF. Harvesting of 7,354-acres per year would treat this entire acreage in 203-years and harvesting 17,003-acres per year would treat this entire acreage in 88-years.

According to DEIS Appendix B -Table 53, 17,988-acres of regeneration harvest would be required to produce 150 MMBF under Alternative Y. Since the upper limit of this Alternative has been scaled back to 140 MMBF this Alternative would potentially only require 16,789-acres of harvest. Alternative B proposes to treat 7,660 acres in MA-3 and would require 9,129 acres of regeneration harvest in MA-2 to meet the numbers displayed in Table 53 [ndash] DEIS Appendix B. Since the rotation length is already 124-years in MA-3, it does not seem that there is much management flexibility for additional harvest Since there 1,180,403 acres outside of recommended wilderness this would lead to a rotation length of approximately 129-years in MA-2 if the numbers in Table 53 are correct.

According to DEIS Table 53, Alternative Z requires 10,740 acres of regeneration harvest to produce 80 MMBF. Based on the numbers provided in the Proposed Forest Plan, some flexibility likely exists in MA-3 for more timber harvest. As described in the Proposed Forest Plan, Alternative Z would treat 3,920 per year acres in MA-3 and 7,280-acres in MA-2. Thus, the regeneration harvest amounts described in DEIS Appendix B Table 53 could be met within the Proposed Forest Plan acreage objectives for Alternative Z. However, most treatments in MA-2 (6,820-acres) would need to be achieved via timber harvest if the figures in Table 53 are accurate. Flexibility for prescribed burning is only 460-acres if Table 53 is accurate. Areas outside of proposed wilderness total 919,980 acres, suggesting a rotation age of 135-years.

Aspen treatment targets seem very unrealistic for the Nez Perce-Clearwater National Forest which has very few stands that are dominated by this forest type. Under the Proposed Forest Plan the annual level of aspen harvest

would vary from 275 to 1,400-acres per year depending on the selected Alternative. Treatment levels on Alternative W (925-acres) and Alternative X (1400-acres) seem very excessive and would likely be detrimental to the wildlife species that utilize these unique areas. It is also unclear why there is such a wide range of treatment in the four proposed Alternatives, given the limited distribution of aspen on the Forest. Annual treatments of 275-acres seem more than adequate for these valuable stands and present much less risk of causing negative impacts. Until some monitoring is done that indicates the necessity of aspen treatment, the Forest should take a conservative approach to the regeneration of this relatively rare resource.

In summary, there does not appear to be much management flexibility in MA-3 for more timber harvest under Alternatives W and X if timber harvest is conducted at levels described in the Proposed Forest Plan. Alternative Y is a little better, but still harvests timber in MA-3 at traditional rotation ages which have generally been around 100 to 125-years on the Nez Perce -Clearwater NF. It is really hard to understand how objectives for the retention of older forest structure and habitat for wildlife species associated with older forests is going to be maintained in MA-3 under these three alternatives. Timber harvest levels in Alternative Z likely will allow flexibility in meeting objectives for the retention of older forests and wildlife habitat in MA-3. All alternatives are going to need to harvest a substantial amount of timber in existing roadless areas (MA-2) or riparian areas in order to meet timber management objectives and this impact appears to have been underestimated in the Proposed Forest Plan. Why is there such a discrepancy in treatment acreages between the Proposed Forest Plan and DEIS Appendix B -Table 53?

[emsp]
[See attachment for Table 1 - Management Area Acreage [ndash] Summarized from Table 13 DEIS Appendix B [ndash] Vegetation and Timber Analysis]

MA3-STD-FOR-01. [ndash] This standard relies on the old growth screening criteria from the publication Green et al. (1992) and formalizes that publication as the standard for defining old growth across the Nez Perce-Clearwater NF. The Green et al. (1992) publication is very good document that provides excellent guidance for the maintenance of old growth on the National Forests of the Northern Region. However, the tables in the report were never intended to be used as a substitute for field inventory and evaluation as is the current practice on the Nez Perce-Clearwater National Forest.

Consider the following statement from the guidelines: [ldquo]Because of the great variation in old growth stand structures, no set of numbers can be relied upon to correctly classify every stand. In addition, the uncertainties of sampling and statistics introduce another need for caution in using stand data. The minimum criteria in the "tables of old growth type characteristics" are meant to be used as a screening device to select stands that may be suitable for management as old growth, and the associated characteristics are meant to be used as a guideline to evaluate initially selected stands. They are also meant to serve as a common set of terms for old growth inventories. Most stands that meet minimum criteria will be suitable old growth, but there will also be some stands that meet minimum criteria that will not be suitable old growth, and some old growth may be overlooked. Do not accept or reject a stand as old growth based on the numbers alone; use the numbers as a guide[rdquo] (Green et al. 1992).

Past use of the Green et al. (1992) guidelines on the Nez Perce-Clearwater Forest has largely been centered on the minimum size and number criteria (TPA/DBH) from Table 1 [ndash] Northern Idaho Zone Old Growth Type Characteristics (2/05 errata edit). The two Forests have generally not used the associated characteristics listed in Table 1 or information described in the publication text to identify old growth. Text of the Green et al. (1992 document) suggests that [ldquo]The basic concept is that old growth should represent the late stages of stand development[hellip]distinguished by old trees and related structural attributes[rdquo].

Instead of field examination by qualified ecologists and wildlife biologists, the two Forests have done exactly what the guidelines suggest not to do. For example, even though it has been over 33-years since the current Forest

Plans were approved there is still no comprehensive inventory of old growth on the two Forests. Instead, the Forests have relieved on a statistical analysis of 712 plots from the Forest Inventory and Analysis (FIA) on the two Forests to assure the current forest-wide standard of maintaining 10% old growth is to being achieved. This analysis has relied strictly on minimum criteria (TPA/DBHs reported in the Green et al. 1992) screening criteria. No examination of associated characteristics has occurred and the location of the old growth identified by this method cannot be determined.

Project planning has included some field verification, but that has been dependent on Ranger District and the make-up of various IDT teams. There has been less and less field verification and more and emphasis in regard to logging within old growth stands as time has progressed and staffs have gotten smaller. In many recent projects, old-growth is declared largely by results of stand examination data and little field verification has been occurring (Windy-Shingle, Hungry Ridge, Lolo Insects and Disease, End of the World, Little Boulder, etc.). Stands without stand examinations are merely declared [ldquo]unverified[rdquo] or [ldquo]replacement[rdquo] and then counted towards old growth totals. Strict reliance on data base queries from the timber stand database has been shown to give unreliable results in past court cases (Iron Honey Timber Sale, Idaho Panhandle National Forest [ndash] 9th U.S. Circuit Court of Appeals in San Francisco, 2004) and is no substitute for field investigation by qualified professionals.

More recent projects have been calling for more logging within existing old growth stands. In most cases, the focus of this logging has been the removal of understory grand fir and Douglas-fir from old growth Ponderosa Pine stands. The Green et al. (1992) guidelines are generally quoted in these proposals with similar language to what is proposed in this standard and usually say something like the logging with maintain old growth conditions as outlined in the Green et al. (1992) guidelines. What is usually meant by these statements are that the numbers of large trees identified in the Green et al. 1992 guidelines will be maintained, but there is little emphasis on maintaining other associated characteristics. Removal of snags, small trees, downed wood and understory vegetation is generally acceptable in order to conduct the logging operation. This is the first time I can remember seeing language that would allow a ten-year delay in meeting old growth definitions and an extension of this activity into other forest types like western larch, western white pine, Pacific yew, western redcedar, western hemlock, and whitebark pine.

In summary, I do not support the adoption of the Green et al. (1992) guidelines as the definition of old growth if they are going to be utilized as they have been in the past on the Nez Perce-Clearwater National Forest. If these guidelines are to be adopted as the Forest standard, it must be recognized that the guidelines are to be used as they were intended. Minimum criteria need to be used as screening criteria for identification of potential old growth stands and qualified ecologists or wildlife biologists should make the final determination of stand suitability for old growth. This determination must use the associated characteristics and the text identified within the Green et al. (1992) publication.

The Forest Plan must establish a threshold for the retention of old growth and stands must be identified so that they can be retained as site specific projects are implemented. Old growth inventory data based on FIA plots is not acceptable for Forest level inventories since actual old growth stands cannot be identified with this method.

I am also opposed to the idea of [ldquo]vegetation treatments[rdquo] within existing old growth stands. As explained in the Green et al. 1992 publication [ldquo]old growth is the late stage of stand development[rdquo] and I believe observations of perceived problems requiring human intervention by the Nez Perce [ndash] Clearwater National Forest are overstated.

Green et al. (1992) describe three broad old growth stand structures that explain most of the unfounded concerns of the Nez Perce [ndash] Clearwater National Forests. First, they describe late seral, single story stands that they say have developed from tree species [ldquo]that first captured the site after a stand replacing disturbance[rdquo]. Such stands have a single layer of large over-mature trees and relatively little understory

growth. They state [ldquo]This stage may have moderate amounts of tree decay, but little mortality, and few snags or pieces of down woody material[rdquo].

Stage 2 is late seral, multi-story - In this stage [ldquo]the initial seral trees and canopy layer have lost control of the site. Disturbance or natural mortality of age has produced holes in the upper canopy; shade tolerant understory vegetation and trees are increasing in crown volume.[rdquo] I believe these are the old growth stands that the Nez Perce-Clearwater is targeting with the idea of human intervention. These stands need time to develop into near climax stands that Green et al. (1992) also describe. Near climax stands (Stage 3) may be multi-storied if shade tolerant species are short lived like subalpine fir or moderately long lived like grand fir and these stands generally have significant numbers of snags and downed woody debris. Long-lived tolerant species like cedar may have only one canopy layer and few snags and little downed wood.

MA3-GDL-FOR-06. [ndash] This guideline deals with retaining of live trees in harvest units in Management Area Three and other stands where timber will be harvested. It is supposed to be a mitigation measure for the loss of snags in harvest units, since most existing snags are expected to be felled during harvest operations due to safely concerns. The guideline differs by Alternative, with Alternative W, X and Y requiring a minimum of three live trees per acre over 15-inches DBH and Alternative Z requiring a minimum of seven trees per acre with preference towards larger trees. There is no minimum tree size requirement in Alternative Z. Leave trees can be scattered across the harvest unit and do not have to be present on every acre.

Under this guideline it is going to be very difficult to meet the desired condition of retaining large numbers of snags and legacy trees within future stands. Several statements of desired condition (FW-DC-FOR-04, FW-DC-FOR-05, FW-DC-FOR-07, FW-DC-FOR-08, FW-DC-FOR-11, MA3-DC-FOR-07, etc.) call for the maintenance of large numbers of legacy trees and snags on the landscape, but offer no requirements in regard to the desired size and minimum numbers of either snags or legacy trees. Snags and legacy trees are important for a wide variety of cavity nesting species and other animals like the fisher and pine marten who use forest structure for denning, cover and seeking their prey which are also attracted to snags and downed woody material.

Three live trees per acre or even seven as proposed in Alternative Z cannot be expected to make much of a contribution to the numbers of snags and legacy trees as compared to historical conditions (Table 2). Unless measures are taken to protect leave trees, it is likely that many of these leave trees will be killed by prescribed burning. While this is desirable to create snags and downed dead logs, it is expected that most snags created by burning operations will only last 10-20 years (Harris 1999). Although, some persistent species (such as ponderosa pine, western larch and, western redcedar) in larger size classes (21+ inches) may persist for longer time periods (Harris 1999).

Trees killed in the initial slash disposal operations will never contribute to the number of legacy trees in harvested areas. Legacy trees are important as sources of large diameter snags and downed logs, until the new stand becomes old enough to actually start contributing these components on its own. This may take 90-100 years in most forest types found on the Nez Perce-Clearwater NF. This is just about the time when the stands will meet culmination of mean annual increment and when the Nez Perce-Clearwater plans to re-harvest them (Revised Forest Plan - Table 25).

In old growth type 4, Green et al. 1992 report that the number of dead standing trees 9-inches or more DBH is 14 with a range of 0 to 35. Green et al (1992) report there are an average of 27 trees per acre 21 inches DBH or more and that the range of across forest types for large trees that exceed 21 inches DBH is 12 to 53 trees per acre. Species like the pileated woodpecker, pine marten and fisher evolved to take advantage of these conditions. In order, to meet the timber management goals of the Revised Forest Plan it is unlikely that stands within MA-3 will ever achieve old growth status and so the trees left in the initial harvest unit are very important to the maintenance of within stand structure within this management area.

Historically, wildfire in younger stands would have produced large numbers of snags and legacy trees in unburnt areas of the wildfire. Species like the black-backed woodpecker evolved to take advantage of this situation and the abundance of food (insects) that would have been created. Leaving three or even seven trees per acre in harvested units that are expected to be harvested again in 70-90 years, does not mimic the historical conditions for species like the black-backed woodpecker.

In order to maintain within stand structure within harvest units, I believe it would be desirable to leave a higher number of live trees within proposed harvest units. I recognize that there are safety issues with leaving individual dead snags and am supportive of leaving live trees, untreated clumps and downed logs. The Revised Plan does not mention the idea of leaving untreated clumps and individual large diameter downed logs.

The Interior Columbia Basin Supplemental Draft Environmental Impact Statement Appendix 12 states that the historical range of variation of snags in moist forests of the Upper Columbia Salmon-Clearwater Basin for large snags exceeding 21 inches DBH is between 3.8 and 7.0 trees per acre for stands experiencing high intensity stand replacing fire regimes (Table 2). In cool/cold forests they found the historical range of variation of large snags (21+ inches) was 5.7 to 10.5 trees per acre in stands experiencing high intensity stand replacing fire regimes. Dry forests with low-intensity intermittent fire regimes had a historical range of variation of large snags between 0.4 and 0.7 snags per acre.

Bollenbacher et al. (2009) examined the existing condition of snag numbers in Northern Idaho using FIA data. He found that when he excluded lodgepole pine stands, that moist forests outside of roadless and wilderness areas had an 90% confidence level of between 2.0 to 2.4 trees per acre for large snags exceeding 20 inches DBH and 90% confidence level of between 4.2 to 5.7 trees for large snags exceeding 15 inches DBH (Table 2). In cool forests he found areas outside of roadless and wilderness areas had an 90% confidence level of between 1.0 to 1.6 trees per acre for large snags exceeding 20 inches DBH and 90% confidence level of between 3.0 to 4.2 trees for large snags exceeding 15 inches DBH. In dry forests he found areas outside of roadless and wilderness areas had an 90% confidence level of between 1.6 to 2.3 trees per acre for large snags exceeding 20 inches DBH and 90% confidence level of between 4.5 to 6.1 trees for large snags exceeding 15 inches DBH.

In the moist and cool PVT groupings the existing level of large snags (20+ inches DBH) snags found by Bollenbacher et al. (2009) falls well below the historical range of the ICBEMP historical range of variation for large snags. In the dry forest PVT, the existing condition exceeds the values of the ICBEMP historical range of variation of forests with low-intensity fire regimes and is just below the historical range of variation for the high-intensity fire regimes.

Under the recommendations of the Revised Forest Plan, very few snags are going to be retained in harvest units and most harvested stands will be harvested again when they reach culmination of mean annual. Live tree retention within harvest units under the Revised Forest Plan does not even come close to the Historical Range of Variation of large snags identified in the ICBEMP Supplemental DEIS - Appendix 12, let alone retain a sufficient number of legacy trees to provide for long-term snag recruitment. Even the Bollenbacher et al. (2009) report which is claimed to be the basis of the snag evaluation in the DEIS, showed snag numbers of 5-6 snags per acre in the roaded front (MA-3).

I don[rsquo]t think it would be unreasonable to retain a minimum of 15-20 live trees or snags if it can be done safely (perhaps with unharvested clumps) per acre in harvest units to account for the loss of snags and legacy trees associated with harvest operations. Trees could be scattered across the unit and would not have to be present on every acre. Minimum tree size should be 15-inches and leave tree selection should be geared to retaining the largest trees in the existing stand.

[See attachment for Table 2 - Historical Range of Variation of Large Snags compared to Existing Condition]

1 - Historical Range of Variation of large snags (21+ inches DBH) as reported for the Upper Columbia Clearwater and Salmon River Sub-basin (High Intensity and Low Intensity Fire Regimes)

2 [ndash] Existing level of large diameter snags (20+ inches) in Northern Idaho Forests excluding lodgepole pine stands (Bollenbacher et al. 2009)

3- Existing level of large diameter snags (15+ inches) in Northern Idaho Forests excluding lodgepole pine stands (Bollenbacher et al. 2009)

MA2 and MA3-GDL-FOR-01

This guideline deals with leaving large coarse woody debris in harvest units. I generally agree with this guideline, but disagree with the idea that standing trees and snags can be counted toward the recommendations of Graham et al. 1994. Minimum standing leave tree and snag numbers need to be independent of downed woody debris requirements. If sufficient woody debris is not available, I believe that existing snags that will be otherwise felled for safety considerations be felled and retained within the unit to meet the recommendations of Graham et al. (1994) and ICBEMP DEIS Appendix 12. If no such snags are available, I suggest that live trees could be felled in substitution.

I also suggest there be an additional requirement to retain large downed woody debris (21+ inches at rates listed in the ICBEMP Supplemental Draft EIS [ndash] Appendix 12 for wildlife habitat. Downed logs for wildlife should have a minimum small end diameter of 15 inches and length of 32-feet. If snags or trees are felled for safety, downed woody debris requirements or wildlife purposes, they generally should not be bucked into shorter lengths. My intent of this recommendation is to get fuel managers to consider the importance of large diameter logs (trees) in their fuel management prescriptions. Downed trees and logs are an important habitat component for a variety of wildlife and aquatic species.

[See attachment for Table 3 - Large Downed Wood Pieces per Acre by Fire Regime and Potential Vegetation Type (ICBEMP [ndash] 2000)]

MA2 and MA3-GDL-FOR-02. This is a very value laden and subjective guideline that could be interpreted to allow timber harvest in existing old growth stands. The term [ldquo]long-term[rdquo] is very open ended and could allow modifications to old growth stands for an unspecified time frame. Please stay out of existing old growth areas with timber management activities.

MA2 and MA 3-GDL-FOR-3. - It is unclear what is meant by the term [ldquo]optimal location[rdquo], under this definition roads could routinely be planned within old growth stands. More direct language is needed that will only allow roads to be constructed in old growth when there is no other reasonable alternative.

MA2 and MA3-GDL-FOR-04 - What are [ldquo]desirable old growth types? This guideline is value based and does not consider that all types of old growth are valuable to the species that utilize them. If a forest stand has reached old growth condition, it is by definition very adapted to the site where it is found and it is very presumptuous to try and convert it to some other forest type.

MA2 and MA3-GDL-FOR-04. - This guideline relates to maintaining snags within the project area and recommendations are given in snags per 100-acres. This guideline differs from the previous discussion regarding the number of live trees to leave in harvest units. This guideline is focused more on the existing number of actual snags in the project area and assurances that snags will be maintained on the landscape.

The Revised Forest Plan recommendations are the same for Alternative W, X and Y, but different for Alternative Z. Recommendations for Alternatives W, X and Y are displayed in Table 12 and recommendations for

Alternative Z are displayed in Table 13 of the Revised Forest Plan. Generally, the numbers appear very low in comparison to the numbers of large diameter snags (21-inches plus DBH) that would have been historically present across the landscape (ICBEMP-Draft EIS- Appendix 12). Recommendations, are especially low in the Cool/Cold forest type (Table 4). ICBEMP-Draft EIS- Appendix 12 does not include the historical range of variation for smaller diameter snags.

The recommendations generally appear to follow the existing condition numbers in larger size classes identified by Bollenbacher et al. (2009) based on his review of FIA plots within unroaded and roaded landscapes of Northern Idaho. All alternatives recommend the same number of 15+ and 20+ DBH snags and these numbers are generally comparable to existing snag numbers in unroaded landscapes of Northern Idaho. Alternative Z recommends the additional retention of smaller snags (10-14.9 inches DBH), but not as many as Bollenbacher et al. (1992) found in their work (Table 5).

The Bollenbacher report is an existing condition report and the basic assumption is that roadless areas have snag levels reflective of historical conditions. The Bollenbacher et al. (1992) report does not consider the inherent differences in productivity between roadless and unroaded areas and the fact that productive roaded areas support larger trees and therefore larger diameter snags than unroaded areas. More wildfires are also known to have occurred in roadless areas and the stands found there are generally younger than unharvested areas in roaded areas. Past wildfire is one of the main reasons roadless areas remained roadless in the past. This could help to explain differences in the ICBEMP [ndash] Appendix 12 numbers, which generally display significantly more large diameter snags, than what Bollenbacher et al. (1992) found in existing roadless areas.

I believe the ICBEMP recommendations should have been utilized for the retention of large diameter snags since most logging is expected to occur in roaded areas (MA-3). If the existing condition is already at the desired condition (i.e. Bollenbacher et al. 1992) and you are going to remove most snags when you harvest timber, then then you are going to need to have some way of creating snags. Most likely this will need to be done by prescribed burning both within and outside of existing harvest units. This suggests a need for leaving more live trees withing harvest units as I have suggested in my comments on guideline MA3-GDL-FOR-06. It also suggests reduced levels of salvage harvest in wildfires wherever they occur.

[See attachment for Table 4 - Revised Forest Plan Snag Numbers (per 100 acres) compared to the average mid-range values form the ICBEMP Supplemental Draft EIS [ndash] Appendix 12]

[See attachment for Table 5. Revised Forest Plan Snag Numbers compared to Bollenbacher et al. (2009) existing condition in the unroaded and roaded stands of Northern Idaho]

2.1.4 - Carbon Storage and Sequestration

Your contention that [ldquo]Planting new trees and improving forest health through thinning and prescribed burning are some of the ways to increase forest carbon in the long run. Harvesting and regenerating forests can also result in net carbon sequestration in wood products and new forest growth.[rdquo] is highly debatable. Consider the following statement from Harmon et al. 1990 [ldquo]Although reintroducing forests to deforested regions will increase C storage in the biota, conversion of old-growth forests to younger forests under current harvesting and use conditions has added and will continue to add C to the atmosphere. This conclusion is likely to hold in most forests in which the age of harvest is less than the age required to reach the old-growth stage of succession. The amount of C added by conversion will vary among forests, depending on their maximum storage capacity and the difference between the timber rotation age and the age of the old-growth state within the given ecosystem.[rdquo] Retention of older forests and the use of longer timber rotations may actually be a better strategy for increasing carbon sequestration (Moomaw et al. 2019).

2.1.8 - Soils Resource

MA2 and MA3-GDL-SOIL-01. All ground-based equipment should be limited to slopes less than 35% regardless if treatments are for logging or other types of vegetative treatment. Limiting logging to 35% slopes and then allowing heavy equipment to pile slash or do other activity on slopes up to 45% makes absolutely no sense.

2.2 - Aquatic Ecosystems

The standards and guidelines included in the Revised Forest Plan for the protection of water quality are fairly nondescript and have generalized conclusions about the need to protect water quality and aquatic ecosystems. These standards are generally short on detail and while they do describe the need to protect water quality there is little emphasis on metrics that might be measured to ensure that water quality and aquatic resources are being maintained. This is sharp contrast to the existing Forest Plans that include several measurable standards and guidelines as related to the protection of water quality and aquatic resources. Appendix 4 of the Revised Forest Plan does include some of these measurable standards, but all of these metrics are now considered optional management approaches. While Appendix 4 may be of some value during project planning, it offers little assurance to the public that any of these optional approaches will be utilized.

FW-DC-WTR-04. This desired condition deals with instream habitat conditions and suggests that streams should meet the metrics established in the PACFISH INFISH Biological Opinion (PIBO). The Forest Plan needs to have a requirement to collect, display and analyze this data during project level analysis for all drainages that might be impacted by the proposal. The PIBO data is currently only collected on a few of the larger rivers such as the Lochsa and the South Fork of the Clearwater and is inadequate for project planning and impact to local watersheds.

FW-DC-WTR-06. This desired condition deals with sediment delivery to streams and suggests that [ldquo]The sediment regime in water bodies is not chronically affected by management activities to the extent that the availability of functioning spawning areas and interstitial spaces are reduced.[rdquo] In the existing Forest Plans stream condition in regard to sedimentation was largely determined by the collection of instream cobble embeddedness and % surface fines data similar to figures described in Table 1 of Appendix 4. Collection of this data should not be an optional requirement of project level planning. Without statistically reliable data and repeated at appropriate intervals it is impossible to know if sediment levels are currently meeting objectives or if conditions are deteriorating or improving over time.

Sediment modeling is also an important part of predicting the impact of proposed projects and it should be a mandatory requirement of project level planning. It is appropriate to use the latest scientifically applicable models as suggested in FW-MSA-WTR-03, but these models should be mandatory requirements of project level planning and not optional as proposed in Appendix 4. Without appropriate modeling it is impossible to predict the impact of future activities on the watershed.

In summary, it should be mandatory that all new projects in fully functioning watersheds maintain cobble embeddedness and % fines at the fully functioning level. Streams currently functioning at risk or functioning at unacceptable risk should be elevated to the status of priority watersheds and actions taken to correct existing problems.

FW-DC-WTR-07 - This desired condition deals with maintaining appropriate instream flows. In forested landscapes, water yield and peak flow have often been evaluated by the use of equivalent clear-cut acres (ECAs). This methodology is discussed in Revised Forest Plan Appendix 4 and is considered optional requirement of the watershed analysis. According to Revised Forest Plan Appendix 4, [ldquo]ECA should be evaluated against a detectable threshold for change in peak flows. Recent literature has converged upon a 20% change in forest canopy as commonly producing a detectable change in peak flows and/or average annual water yield (MacDonald and Stednick 2003; Grant et al. 2008, Troendle et al. 2010)[ldquo]. The 20% value is also

supported by the National Marine Fisheries Service (1998) who suggest an ECA in a 6th Code HUC watersheds of less than 15% is generally indicative of good or high-quality stream condition, 15-20% is considered indicative of moderate quality stream condition and ECA of greater than 20% is indicative of low or poor-quality.

I believe ECA analysis should be a mandatory requirement of project level planning in the Forest Plan and that ECAs should be held below the 20% threshold as identified by MacDonald and Stednick 2003; Grant et al. 2008, Troendle et al. 2010 and the National Marine Fisheries Service (1998). I know this value is in conflict with the watershed constraint of 30% timber harvest in individual watersheds that was utilized in the SIMPPLLE model. The SIMPPLLE model constraint needs to be modified to 20% harvest and the model rerun to see how timber volumes are impacted. The Forest Service should not be placing streams and watersheds at risk by conducting high impact alternatives such as Alternatives W and X.

FW-DC-WTR-11. This standard talks about water cooling, but does not identify instream temperatures that are important for the various species of concern such as bull trout. The Forest Plan needs to identify appropriate stream temperatures for the aquatic species of concern such as the bull trout. If there are differences from those already identified by the Idaho Department of Environmental Quality, these differences need to be resolved in favor of the species of aquatic concern.

FW-OBJ-WTR-01, FW-OBJ-WTR-02 and FW-OBJ-WTR-04
It is unclear why the objectives for improving water quality would vary by alternative. The objective should be to improve the maximum number of watersheds as possible within the available budget.

FW-STD-WTR-02 - This standard discusses the importance of BMPs in protecting water quality. While, I agree that BMP[rsquo]s are important, they should not be the only (principle) means of protecting water quality. Harvest scheduling, watershed improvement and road management including removal of high-risk roads and stream crossings may actually be more important considerations in maintaining and improving water quality.

FW-GDL-WTR-05 [ndash] Instream activities that might impact spawning fish should not be permitted on National Forest lands, regardless if those activities are permissible under guidance of the State of Idaho instream work guidelines.
2.2.2 Conservation Watershed Network.

The streams identified in the Conservation Watershed Network have been significantly reduced over those identified in the current Clearwater Forest Plan - Appendix K and the current Nez Perce Forest Plan [ndash] Appendix A. Reviewing project impacts at the larger HUC-12 scale with tend to dilute impacts and decrease the significance of impacts to both water quality and fish. Please use the previously designated Forest Plan watersheds in your analysis. This is another case of trying to fix something that isn[rsquo]t broke. Considerable work went into identifying streams on the two Forests that were important fisheries. Fish species of concern were identified in each of these drainages and various habitat objectives were identified based on factors such as stream size, species present and current habitat condition.

FW-STD-CWN-01 [ndash] This standard identifies HUC-12 watersheds as the standard for watershed evaluation. I do not support this change, and think this standard should apply to the existing Forest Plan watersheds as currently identified in the existing Forest Plans. Significant resource damage could occur to water quality and fish habitat by the time impacts are apparent at the larger HUC-12 scale.

2.2.3 Riparian Management Zones (RMZs).

I do not support your efforts to weaken PACFISH and INFISH. Guidance currently provided by PACFISH and

INFISH should be retained in the Proposed Forest Plan.

FW-STD-RMZ-01.

The primary purpose of riparian management zones is to achieve riparian management objectives, and other resource objectives should only be given secondary consideration in these zones. Any silvicultural practice, all of which are discretionary actions, that is approved in the riparian zone should generally be designed to improve riparian management objectives.

a. Mechanical thinning of small diameter trees less than 8-inches DBH should not be permitted in any portion of the riparian management zone. Mechanized equipment generally requires skid trails or the removal of trees to operate. The equipment can also cause compaction that could be detrimental to the moist conditions found in most riparian zones. Hand thinning and prescribed fire should only be permitted on a limited basis and in cases where it can be shown that such practices will actually improve riparian management objectives.

b. Efforts should be made to remove administrative facilities such as campgrounds and roads from riparian zones, instead of conducting fuel treatments to protect these poorly located facilities. Historical structures obviously cannot be relocated and some hand treatment may be necessary to protect these facilities.

c. Commercial thinning should not be planned in riparian zones in any PVT. Such practices are generally detrimental to the recruitment of downed wood debris and snags. Commercial thinning also removes shade and important understory vegetation. I can reason why it would be necessary to favor Ponderosa Pine within any riparian area since this species generally is found in drier upland locations.

d. Allowing the creation of small openings within any portion of the riparian zone should not be permitted. I cannot think of any apparent reason to foster white pine or larch regeneration that would be necessary to achieve riparian management objectives. Other species like western red cedar and grand fir are perfectly capable of providing shade, bank stability and sources of woody debris that are important for maintaining aquatic integrity.

e. Removal of encroaching trees into meadow areas should be limited to hand methods. Mechanized removal of encroaching trees into meadows should not be permitted. Mechanized equipment has the potential to compact wet meadows and disrupt the important movement of water in these moist areas.

FW-DC-RMZ-04. Fuelwood cutting should not be authorized in riparian management zones. Any management practices within the riparian management zone needs to be conducted under the supervision of a trained hydrologist, ecologist or fisheries biologist.

FW-STD-RMZ-06. Prescribed fire ignitions should not be permitted in the entire width of the riparian management zone, unless it can be demonstrated that such practices will improve riparian management objectives.

FW-OBJ-ARREC-01. Relocating only two dispersed recreation sites from the riparian zone every five years seems like a pretty feeble objective. There should be an objective to remove all dispersed and developed recreation facilities from the riparian management zone over the next ten to fifteen years.

FW-GDL-ARREC-01. New solid and sanitary waste facilities should not be constructed in the riparian management zone, unless these facilities are absolutely necessary to protect water quality. For example, at a boat launching facility.

2.3 Wildlife

The DEIS and Proposed Forest Plan claim that most wildlife species will be protected by proposed Forest Plan objectives for the management of vegetation and other more general management measures that are not specific to an individual fish or wildlife species. Examples, of these general measures might be the inclusion of riparian buffers or general recommendations for the retention of snags and downed wood.

This supposition is very questionable and goes back to practices of the 1960s, that were generally the impetus for the passage of the National Forest Management Act in 1976. In those days, it became abundantly clear that forest management practices where not adequately protecting fish and wildlife habitat and if these other resources were to be protected that a plan for the protection of native and desirable non-native species would be needed. This led to the development of the current Forest Plans and the development of measurable standards and guidelines that offered protection to important fish and wildlife species.

The proposed plan does away with most measurable standards related to individual fish and wildlife species and replaces them with more general subjective criteria that are supposed to protect all species. The proposed plan only identifies a few species of conservation concern and places little or no constraint on management activity that specifically addresses the needs of each individual species.

The only specific species criteria for the protection of wildlife that I could find in the Proposed Plan or DEIS are some constraints in the SIMPPLLE model for the lynx and fisher. Otherwise the general provisions of the plan are assumed to protect all fish and wildlife species. I strongly disagree with this approach and the conclusions of the analysis, especially in a plan that calls for significant logging and prescribed burning increases as outlined in Alternatives W and X.

FW-DC-WL-01. [ndash] This desired condition deals with threatened and endangered species such as the lynx. The Forest Plan suggests that the Northern Rockies Lynx Management Direction will be followed in the Forest Plan, but it is unclear how lynx habitat has been accounted for in the Forest Plan SIMPPLLE analysis. There are three basic elements in the Northern Rockies Lynx Management Direction. DEIS Appendix B [ndash] Page B-31 suggests that one element of the lynx conservation strategy has been incorporated into SIMPPLLE as a model constraint, specifically that vegetation treatments will not exceed 15% per decade in lynx conservation units.

No constraints were placed in the SIMPPLLE model in regard to the other two other primary criteria of the Northern Rockies Lynx Management Direction. The second criterion of the Northern Rockies Management Direction suggests that no more than 30% of any lynx analysis unit can be unsuitable (young stands of insufficient height to provide snowshoe hare habitat). With over 375,000 acres of wildland fire proposed each decade under fire objective FW-OBJ-FIRE-01 and significant increases in logging especially on Alternatives W and X, it seems probable that this criterion could be exceeded in at least some lynx conservation units.

The third criterion relates to the retention of denning habitat which is generally defined as older forest stands. Northern Rockies Management Direction calls for the retention of 10% of each lynx conservation unit in denning habitat. While, I agree that this criterion is less likely to be limiting than the other two main criterion I am not sure that it should not have been included in the SIMPPLLE model constraints.

I am also very confused regarding Alternative Z and what will happen in lynx habitat that is also considered fisher habitat. Why, aren[rsquo]t lynx and fisher habitat requirements being considered in all alternatives? Do portions of lynx analysis units in both lynx and fisher habitat have the 15% management constraint in Alternatives W, X and Y?

Finally, I am disappointed that no provisions have been considered for the protection of wolverine and grizzly bear habitat. Retention of the existing 1.5 million acres of roadless habitat on the two Forests is a very important consideration for these two species. Wolverines are already known to inhabit these areas and there have been recent sightings of grizzly bears starting to explore the Nez Perce-Clearwater NF. The roadless areas of the

Bitterroot Recovery Zone are an important link between grizzly bear populations of the Northern Continental Divide and Yellowstone. The Bitterroot Recovery Zone is the largest intact roadless area in the lower 48 states and deserves a much higher level of protection than you have offered in any of your proposed alternatives. Please evaluate the Citizen Alternative that has been proposed by the Friends of the Clearwater and numerous other individuals for the protection of this unique area.

FW-DC-WL-02. You have significantly reduced the number of wildlife species of conservation concern to five species (Bighorn Sheep (Ovis canadensis), Fisher (Pekania pennant), Mountain Quail (Oreortyx pictus), White-headed Woodpecker (Picoides albolarvatus) and Harlequin Duck (Histrionicus histrionicus)). Three of the species (bighorn sheep, white headed woodpecker and mountain quail) are very limited in their habitat distribution on the Nez Perce - Clearwater NF and primarily occur in drier habitats along the lower Salmon River. This area also has several endemic snail species and other habitat characteristics that suggest that this area should be a separate management area in the Forest Plan (See previous discussion).

Except for the fisher (discussed below), there are no management constraints or protections in Forest Plan for any of these species. The other four species are essentially on their own, with generalized statements such as those found in FW-DC-WL-05 for the big horned sheep. Such statements are unquantifiable and generally offer no protection to the species. What are the riparian characteristics you intend to provide for harlequin ducks and how will these be achieved? Will anything be different from other riparian areas on the Nez Perce - Clearwater National Forest? What do you intend to do to protect or enhance habitats for the mountain quail and the white-headed woodpecker?

It is also unclear why several recently designated species of conservation concern on the Nez Perce [ndash] Clearwater with greater habitat distributions and higher risks of being impacted by activities on the two Forests have been eliminated by the Regional Forester. For example, the black-backed woodpecker (Picoides arcticus), Townsend[rsquo]s Big-eared Bat (Corynorhinus townsendii), Long-eared Myotis (Myotis evotis), Long-legged Myotis (Myotis Volans) and Fringed Myotis (Myotis thysanodes) are all species that are dependent on snags for their life cycle and the Proposed Forest Plan intends to remove significant amounts of snag habitat.

The Pygmy Nuthatch (Sitta pygmaeaz) and the Flammulated Owl (Psiloscops flammeolus) are species that are dependent on large diameter ponderosa pine forests that you intend to target with some of your proposed treatments in existing old growth. The Bald Eagle (Haliateetus leucocephalus) is a formerly listed species that is associated with riparian areas that you intend to target with more timber harvest, The gray wolf (Canis lupus) is also a formerly listed species that is dependent on big game populations and is most at risk by increasing human access which you intend to foster in the upcoming plan. Your proposal allows for increased motorized access, the creation of loop trails and back-country snowmobile use all of which threaten a variety of wildlife species.

FW-DC-WL-04. The desired condition for the fisher correctly identifies that the most important area for this species is the Warm Moist PVT and accurately suggests that publications by Sauder (2014) and Sauder and Rachlow (2014) reflect the most current information regarding this species. However, there are some errors and oversights presented in desired condition that need to be corrected.

The focus of the information provided by Sauder and Rachlow (2014) was actually at the home range scale of 19 to 39 square miles (50-100 km2) and represents the difference between the average home range size of female and male fishers. Female fishers were reported to have an average home range size of 19 square miles (49.3 km2) and males had an average home range size of 38 square miles (98.4 km2) according to the publications. There is no support for a fisher home range size of 8-square miles as described in the proposed Forest Plan in either of the Sauder publications. The minimum tree height used in the publications was 82 feet (25 meters) and this was considered a surrogate for mature forest based on the Forest Inventory (LANDFIRE) used in the study.

Occupied home ranges had and average open area of 5.4% and 55.8% mature forest (stands exceeding 82 feet

in height). These occupied home ranges were compared to 50 randomly placed theoretical or pseudo home ranges in three different strata (industrial forest, multiple use forest and roadless forest) found in the study area. It was found that industrial forest had an average open area of 17.4% and contained 31.3% mature forest. Multiple use forest (USFS) had an average open area of 5.7% and contained 43.0 % mature forest. Roadless forest (USFS) had an average open area of 11.2% and had 21.4% old forest.

In contrast to the discussion in the Proposed Forest Plan, Sauder and Rachlow did not predict that fishers benefit from a [ldquo]variety of successional stages[rdquo] in their home range. They state that [ldquo]Although fishers selected for the proximity of mature forest stands, they simultaneously selected against open areas.[rdquo] They suggest that [ldquo]an increase in the amount of open area from 5 to 10% reduces the relative probability of occupation by 39%.[rdquo] A graph is also provided in the publication that predicts [ldquo]The effect of open area (%) within a landscape on the relative probability of occupancy by fishers in mixed coniferous forests of north-central Idaho.[rdquo]

The Revised Forest Plan analysis for the fisher is basically framed as a constraint in the SIMPPLLE model (DEIS Appendix B [ndash] Page B31) Fisher habitat is termed sufficient in most alternatives if 50% of the stands in fisher habitat exceed 25 meters (82 feet in height) or are in the very large (20+ inches), large (15-19 inches) or the medium size classes (10-14.9 inch). There are no limits on the amount of open habitat and shelterwood and intermediate treatment harvest units are not considered openings in the analysis. There are no constraints on the amount of opening that can occur in fisher habitat, except in Alternative Z where the amount of opening cannot exceed 10%.

I can see several problems with this analysis and believe that this approach places the fisher at serious risk on the Nez Perce-Clearwater NF. First off, the analysis does not appear to be spatially explicit and it is really unclear how conservation watersheds are being utilized. There is some suggestion that the 50% number may be being applied to conservation watersheds, but this is unclear from data available in the DEIS or Proposed Forest Plan. For a territorial species like the fisher it is important to understand how theoretical home ranges are being impacted. For example, if all forest openings are being concentrated in a particular home range, that home range is likely to become unsuitable. Sauder and Rachlow (2014) suggest that unsuitability occurs when approximately 25% of the home range is in open areas.

Except for Alternative Z, there is no constraint in the SIMPPLLE model on the amount of open habitat that can occur in fisher habitat other than PVT objectives for the amount of young forest and open areas. Shelterwood harvest units are not counted as forest openings in the analysis, despite the fact that these treatments are actually regeneration harvests. Stands only need 10% canopy cover to qualify as forest cover, despite the fact that Sauder and Rachlow (2014) used 30% canopy cover for identifying the difference between open and closed canopy stands in their publication.

The Forest Plan objectives for the Warm Moist PVT (primary fisher habitat) suggest that existing amount of seral grass and shrubs is currently 9% and that the desired range of seral grass and shrubs is 5-15%. All of these stands would be considered openings, but some of the stands (such as a low elevation winter ranges) may be able to be excluded from fisher habitat. Other interspersed openings in fisher habitat would need to been counted as openings as was done by Sauder and Rachlow (2014) in their analysis. The best way to do this is by the designation of theoretical home ranges as Sauder and Rachlow (2014) did to evaluate differences in Industrial, USFS Managed Forest and USFS Roadless Forest.

Sauder and Rachlow (2014) allowed overlap of home ranges in their analysis, but non-overlapping theoretical home ranges centered on potential habitat would work better for a Forest Plan analysis. Non-overlapping theoretical home ranges would eliminate problems of double counting habitat in the analysis. Since reproduction is primarily associated with female fishers, I suggest units the size of a female home range (19-20 square miles). These units would be very similar to lynx analysis units.

The current amount of very young forest in the 0-4.9[rdquo] DBH category in the Warm Moist PVT is 5% with a desired range of 15 to 25% according to the Proposed Forest Plan. Coincidently, the existing condition number is very similar to 5.7% open habitat value reported for managed forests by Sauder and Rachlow (2014), and the 5.4% value that Sauder and Rachlow reported for the actual occupied home ranges in their study. A review of the graph provided by Sauder and Rachlow (2014) suggests that relative probability of occupancy would decline to 20% of habitat potential if the amount of open area is increased to 15%. Should the amount of open habitat increase to 25%, the probability would decrease to and 0% of potential. This is a situation that will clearly place this sensitive species at great risk and does not even count interspersed openings and the fact that different standards for determining an opening (i.e. 30% crown closure) were used in the Sauder and Rachlow (2014) analysis.

Please redo you fisher analysis in the Final EIS to actually reflect the current literature on the fisher. You current proposed action, particularly on alternatives W and X, is likely to eliminate the fisher from the warm moist PVT and MA-3. As previously discussed, your objectives for timber harvest under Alternatives W and X will likely result in a 75-year timber rotation in MA-3 and eliminate most fisher use in this management area.
FW-DC-WL-05. This desired condition is pretty vague on what you plan to do to improve big horn sheep habitat. Where is sheep habitat located on the Forest and what will you do to enhance or protect this habitat? Your statements that you will maintain habitats at their [ldquo]historic distribution and connectivity[rdquo] offer little concrete direction for the protection of big horn sheep habitat. Statements that you will provide escape cover and grass and forbs for high protein forage offer no real direction when your management direction largely comes from the goals and objectives that you have identified for your three simplified management areas. You provide no direction regarding motorized access on big horn sheep summer or winter range? Sheep use areas should be a special management area in the Forest Plan.

2.3.1 Multiple Uses Wildlife

With the exception of elk, you have eliminated all management indicator species in the Proposed Forest Plan. Management indicator species are important for monitoring the impact of forest management and recreational use on a host of other species which utilize similar habitats. At risk species are generally those associated with older forests, snags and downed wood since these are removed with timber management. Wide ranging predators are also at high risk due to human activity and reductions in available habitat. Roads, trails and recreational activity along with changes in habitat can influence these species due to their large home range size and relatively low population densities compared to the prey species on which they rely.

In the existing Forest Plans, white-tailed deer and moose where also considered important big game management indicator species in addition to elk. The pileated woodpecker and the goshawk were chosen as management indicator species that require older forests for nesting. The pileated woodpecker is a cavity nesting species that requires large snags for nesting. Goshawks do no utilize nesting cavities, but older forests are important for this species. The pine marten and fisher were also selected as management indicator species in the existing Forest Plans. Both are wide-ranging predators that also utilize older forests. The two species generally separate by elevation, with fishers utilizing lower elevations in the warm moist PVT and martens being found in higher elevations in the cool moist PVT.

Currently, you are only considering five species of conservation concern and the lynx as species that you will monitor. Three of these species (white-headed woodpecker, mountain quail and bighorn sheep) have a very limited distribution on the Forest and are unlikely to be influenced by most proposed activity on the Nez Perce - Clearwater NF. These species are not good management indicators due to their limited distribution. The harlequin duck has a little wider distribution, but it is generally limited to riparian areas along a few of the larger rivers that are found in the Nez Perce [ndash] Clearwater NF. This species is likely important for monitoring impacts of recreational activity along the major rivers of the Forest, but timber management activities are unlikely

to create significant impact on the harlequin duck as long as stream integrity is maintained as required in the Forest Plan.

As wide-ranging predators, the lynx and the fisher are both species that are found across the Forest. Both can be negatively influenced by timber management and human activity, and I believe both species serve as good management indicator species. However, I don[rsquo]t think that these two species alone are sufficient to represent the other 358 terrestrial species that are known to occur on the Nez Perce [ndash] Clearwater NF (DEIS wildlife report -Abundance and Diversity of Wildlife [ndash] Table 1).

I believe additional management indicator species are necessary to ensure that the goal of maintaining plant and animal species diversity as outlined in the National Forest Management Act of 1976 is achieved. I see no reason to drop the goshawk, pileated woodpecker and the pine marten as management indicator species unless better representative species can be identified. These species have wide distributions across the forest and are likely to be influenced by management activity. As a cavity nester, the pileated woodpecker represents an important guild of species that are likely to be negatively impacted by management activities.

According to the DEIS wildlife report -Abundance and Diversity of Wildlife [ndash] Page 3.2.3.2-40 [ldquo]A total of 88 species use downed wood as a key requirement, 53 species use snags, and 15 species use both snags and downed wood. Combined, 141 wildlife species rely upon either snags or downed wood, or both, which accounts for about 38.8 percent of the wildlife species diversity within the plan area. Snags, decayed trees, or hollow trees are used by 44 bird species, 19 mammal species, and 3 reptiles.[rdquo] The pine marten is a species that also makes use of downed wood and older forests in upper elevation areas. It is a species that is very sensitive to habitat fragmentation and its use of upper elevations generally complements the fisher as a management indicator species, due to the fact that the fisher is generally uses similar habitats at lower elevations. The goshawk is also an important species because of its association with old forests and a variety of prey species. If goshawks are present, the prey species that support them are also likely to be present.

Management Indicator Species need not be at risk species or rare species, and in fact more common species are likely to be better management indicators because of their wider distribution and the fact that populations can be expected to respond both positively and negatively to management actions. Considerable research has already occurred on the goshawk, pileated woodpecker and the pine marten and the risks of forest management on these species is well documented. Please retain these species as management indicator species along with elk, lynx and the fisher. You should also consider monitoring of primary excavators (woodpeckers) as a management guild. Cavity nesting forest owls are likely species that will negatively influenced and evaluation as a management guild should also be considered.

I am less concerned about retaining moose and white-tailed deer as management indicator species, but do believe that there are differences from elk that need to be recognized. Moose generally winter at higher elevations and their use of old forests with yew understories is a very important consideration on the Nez Perce NF. White-tailed deer may be more common than elk in certain portions of the Forest such as the Palouse Ranger District and lower elevations on the western edge of the Nez Perce Clearwater NF. Forest cover can be particularly important for wintering white-tailed deer and wintering conditions suitable for elk may not support wintering white-tailed deer. Moose and deer are also more dependent on forest browse than elk who are considered grazers that are more dependent on forbs and grasses.

FW-DC-WLMU-04. You have eliminated management areas for winter range in the proposed forest plan including former winter range management areas for moose. Previous guidance called for uneven aged management in moose wintering areas and protection of old growth habitats with developed yew understories. Research had shown (Pierce and Peek 1984) that these areas are important wintering locations for moose on the Nez Perce National Forest. The revised Forest Plan has eliminated previous direction and only offers this generalized statement for the protection of moose habitat. Big game winter range needs to be a separate

management area for all big game species. Management practices on winter range require different strategies for different big game species. White-tailed deer, for example, generally require more cover for snow interception that is required for moose and elk.

FW-GDL-WL-01. This guideline calls for the retention of corridors to connect patches of mature forest, but makes no actual plan to actually identify these corridors or the patches which they would connect. Without an overall forest level strategy to develop such a plan it is highly unlikely that it would ever occur. Project level planning is not focused on habitat connectivity over broad landscapes and the direction in the Proposed Plan does not focus on the development of such a plan. This guideline has very little teeth and the connectivity you seek here has very little chance of actually occurring under the Proposed Forest Plan.

FW-GDL-WLMU-03. How will you protect winter range for ungulates when there are no management areas that identify these areas and no management emphasis on providing suitable winter habitat? What positive steps will you take to improve big game? Currently, it appears that big game such as white-tailed deer, elk and moose will largely be left to their own devices in landscapes that will primarily be managed timber production.

2.3.2 Multiple Uses Wildlife-Elk

I do not support your overall conclusion that elk forage production is the overriding factor that is limiting elk numbers on the Nez Perce [ndash] Clearwater National Forest. Your lack of emphasis on maintaining elk security and increasing emphasis on allowing more motorized access across the Forest is not going to be beneficial to elk. According to Unsworth et al. (1998) who worked extensively with elk research on the Nez Perce [ndash] Clearwater NF, [ldquo]Concern over forage production on summer range should be secondary to reducing disturbance and providing secure habitat during fall hunting seasons.[rdquo] These factors were previously monitored in the existing Forest Plans with the Interagency Guidelines for Managing Elk Habitats and Populations (Serveheen et al. 1992). You have suggested no alternative method, and have generally ignored over 50-years of research to arrive at the idea that forage production is the only important factor. Please update the Revised Forest Plan with some scientifically defensible and measurable standard for protecting elk security and habitat displacement based on human disturbance.

Displacement from preferred habitats by both motorized and non-motorized recreation (Wisdom et al. 2018) and hunting near roads (Ranglack 2017) continues to be a major problem for elk. Open roads can place elk at risk due to increasing elk vulnerability during the hunting season (Leptich and Zager 1991, Hayes et al. 2002, Unsworth 1993). All three authors worked in Northern Idaho and found that the major cause of mortality in adult elk was hunting. Mortality was for elk using roaded landscapes was generally higher in areas with more roads. For example, Leptich and Zager (1991) reported that bull mortality was 61.7% in highly roaded areas and 31.3% in areas with few roads. In areas where access was managed with road closures the mortality rate was intermediate (44.7%). Unsworth et al. (1993) reported that both steep topography and open road density played a role in hunter success. Surviving elk in their study generally used steeper topography and areas with fewer roads.

[emsp]
Desired Conditions Management Area 2

MA2-DC-ELK-01.

It seems fairly excessive to have 10-20% of MA-2 in young age classes that support high levels of elk forage production. If these treatments only last 10-years as indicated in the text of the Proposed Forest Plan, this would mean that such treatments would be accomplished in 50-100 years across the entire acreage of MA-2. Given that many forest types on the Nez Perce-Clearwater NF commonly have life cycles of 150-250 years or even longer as in the case of western red cedar the amount of proposed treatment seems fairly excessive.

MA2-DC-ELK-02. This desired condition is very open ended and makes little sense. How many 5,000-acre areas without motorized use are proposed and how will these areas be distributed across the landscape? MA-2 currently consists of much larger roadless areas that are already greater than 5,000-acres in size. Proposed alternatives call for the creation of motorized loop trails into these unroaded areas and continued motorized use of existing trails within currently unroaded areas. More motorized access should not be planned into existing roadless areas under the cover of this desired condition.

Desired Conditions Management Area 3

MA3-DC-ELK-01.

This desired condition has the potential to conflict with desired habitat conditions for the fisher which is considered a species of conservation concern. This along with management recommendations for desired conditions of vegetation described in the Forestlands section suggest high risk for the fisher. The DEIS tries to make the case that increasing openings for elk (15% of the landscape as outlined here) is fine because that fisher habitat is [ldquo]very departed in extent and composition, which is a result of fire suppression and timber management. Without intervention, and under a warmer climate, modeling results suggest that fisher habitat will dramatically decline regardless of management.[rdquo]

There is no actual support for this contention in the warm moist PVT which is the primary PVT in MA-3. As has been previously discussed in the vegetation section, the warm moist PVT is generally not significantly departed in extent and composition due to fire suppression, and the only major changes are largely due to white pine blister rust and past management activities. Alternatives W and X, would manage MA-3 on a very short timber rotation (around 75-years) and create even more open area than called for in this desired condition. Species of conservation concern should direct management actions, not elk.

Objectives Management Area 3

MA3-OBJ-ELK-01. This management objective calls for maintaining 20% of high value nutritional areas in locations father than [frac12] mile from open motorized access. This objective is going to be very difficult to achieve as openings are planned, created and mature due to natural succession. Changing access restrictions in response to successional changes as called for in this objective is bound to be unpopular with the public and an administrative nightmare for on the ground biologists given this responsibility.

Guidelines Management Area 2

MA2-GDL-ELK-01

I do not support the fragmentation of existing roadless areas with new motorized trails regardless of how much adjacent unroaded habitat is available. Other species such as grizzly bears, wolverines, lynx, marten and fishers have much larger home ranges than elk and need roadless areas much larger than 5,000-acres to support their life cycles.

Guidelines Management Area 3

MA3-GDL-ELK-01.

I really don[rsquo]t understand this guideline. It appears to call for the increased forage production in HUC 12 watersheds on slopes less than 40%. Slopes less than 40% are limited in most watersheds and elk often use these areas for resting during the mid-day. Targeting all of the gentler topography with vegetation treatments is

not going to be beneficial to elk. There is mention that increased distances from open motorized use is desirable, but there are no measurable standards in regard to open road density or security habitat which have shown to have significant influence on elk use in managed landscapes (Servheen et al. 1997).

FW-OBJ-CR-03. Given the amount of activity that is proposed in the revised Forest Plan, an inventory of 200-acres annually for presence of cultural resources seems like an extremely low number. Please assure that all new projects be appropriately reviewed for cultural resources.

FW-GL-REC-04. This guideline stresses the idea of coordinating with local, state, federal, and tribal governments when planning, evaluating, and managing the Nez Perce-Clearwater trail system and linking routes into cohesive and connected trail networks through collaboration. I am concerned that these efforts may jeopardize other resource values such as the protection of fish and wildlife habitat.

FW-GL-REC-05. This guideline stresses the idea of creating community hubs of recreational activity. I am again concerned that the enthusiasm for these hubs poses risks to other resource values such as fish and wildlife habitat.

FW-DC-REC-02. This desired condition deals with changes in the current recreational opportunity spectrum by alternative. The general trend in the proposed alternatives is to increase motorized recreation at the expense of non-motorized recreation. For example, semi-primitive motorized winter recreation is expected to go from the current level of 16%, to a level of 43-64% based upon which alternative is selected. This increase can be expected to cause major concerns for wintering big game and a variety of other wildlife species such as the wolverine and lynx.

Summer recreational opportunity spectrum changes are a little more difficult to ascertain. Several of the Alternatives allow motorized corridors through existing roadless areas and it is difficult to figure out how these corridors actually impact the Recreation Opportunity Spectrum.

The Recreation Opportunity Spectrum for semi-primitive non-motorized recreation appears to decrease in all alternatives from the existing level of 34%, to 13-27% with the steepest decline associated with Alternative X. Semi-primitive motorized recreation takes a sharp increase under Alternative X (22 to 32%), but remains essentially the same for the other alternatives changing from the existing condition of 22% to (18-23%) dependent on the selected alternative. The rural setting increases from existing condition of 0% to 4% under all alternatives and the roaded natural setting generally remains the same varying from the existing condition of 23% to (20-22%) dependent on the selected alternative.

Overall, I am not supportive of an increased amount of motorized use on the Nez Perce [ndash] Clearwater NF, particularly in existing roadless areas. The idea of increasing motorized loop trails across the forest is bound to have negative consequences for fish and wildlife species and decrease opportunities for undisturbed non-motorized recreation. Proposed changes in winter motorized use are particularly concerning when there are no provisions in the Revised Forest Plan for the protection of winter big game habitat and other wildlife species such as the fisher, pine marten, wolverine and lynx

FW-DC-REC-10. This desired condition deals with connecting trail systems to local communities and community hubs. I am concerned that placing emphasis on making these connections is going increase expectations from local communities and place fish and wildlife habitats at risk. Is it really necessary to connect communities in northern Idaho, southern Idaho, Montana, Oregon and Washington with OHV trails?

FW-DC-REC-12. How will fish and wildlife habitat be protected along the Grand Exploration Motorized (GEM) trail?

5.1 Timber

Please eliminate Alternative X as a possible alternative, there is no reason to exceed the sustained yield limit. I also question the feasibility of Alternative W in actually delivering all of the claimed resource benefits that you describe. This is an extensive timber harvest alternative and your unmeasurable promises of habitat protection will be impossible to keep under this alternative. Your PRISM and SIMPPLLE analyses appear to suffer from the same overoptimistic harvest projections that occurred in the existing Forest Plans with the FORPLAN model. You have placed very few constraints in the models and have not really considered how your subjective goals and objectives might impact timber outputs if you actually implemented them. For example, you stated goals of leaving an abundance of legacy trees and snags across the landscape will be near impossible to achieve under Alternative W.

Alternative Y has a more probable chance of delivering on some of your promises, but it still has numerous provisions that cause me concern. The level of harvest is more than twice what you have achieved over the last twenty-years and you continue to currently have problems protecting water quality and fish and wildlife habitat at current harvest levels. The level of timber harvest on Alternative Z has the best chance of delivering for other resources (fish, wildlife, water quality etc.), but needs to be modified significantly (like all other proposed Alternatives) to offer more protection to recommended wilderness and wild and scenic rivers.

FW-DC-TBR-03. It should not be a desired condition to harvest dead and dying trees just because numbers exceed the very low levels you have identified in MA3-GDL-FOR-05. Dead trees provide very important ecosystem functions including wildlife habitat, fisheries habitat, prevention of soil displacement, and soil development. Please remove this statement from plan alternatives.

FW-DC-TBR-05. [ndash] The Forest Service needs to re-evaluate its current Wildland Urban Interface designations in the Forest Plan. Current designations where applied very liberally and include large expanses of land that pose little risk to nearby communities. In many areas the existence of a few backcountry cabins has resulted in large expansions of the Wildland Urban Interface. Expensive fuel treatments are not justified in these areas and take away funds from locations where such treatments are truly required.

FW-DC-TBR-06 [ndash] I cannot support the extensive amount of timber harvest proposed on Alternative W or X. As I have previously discussed, these two alternatives will harvest most of MA-3 in 75-years and are likely to have serious impacts on water quality and fish and wildlife habitat. I do not support the significant amount of harvest that will be required in existing roadless areas under these two alternatives. Alternative Y is an improvement over W and X, but I still believe that harvest on this alternative will be excessive based the impacts I have seen from the current harvest levels on the Forest. Please keep harvest levels at existing levels or select harvest levels associated with Alternative Z as your preferred Alternative.

Alternative Z is the logical alternative to combine with the wilderness recommendations that you have suggested in all of your other alternatives. This alternative should also have the most streams recommended for the wild and scenic river classification. I strongly advocate for even more wilderness protection and wild and scenic river classification than any of your current proposals (see other comments). Alternative W is not a logical alternative since you will not be able to achieve your proposed timber targets and protect all of the other resources that you discuss including proposed wilderness. Despite your claims you cannot have it all!

FW-STD-TBR-03. The stocking levels outlined in Table 24 appear to be very low for reforestation efforts following regeneration harvest. Even the Idaho Forest Practices act requires a minimum of 170 trees per acre in the 0[rdquo]-2.9[rdquo] size class north of the Salmon River. Why are your numbers so low (60 trees per acre in ponderosa pine, 300 trees per acre in lodgepole pine and 125 trees per acre for all other species)?

FW-STD-TBR-05. - I am flabbergasted that the Nez Perce [ndash] Clearwater National Forest would propose a

375-acre regeneration harvest unit size. Is this even legal under the National Forest Management Act? What is the reason behind this proposal and what are the desired ecological conditions that this proposal intends to achieve?

FW-STD-TBR-07. Size of salvage harvest units should not have a blanket exclusion for regeneration harvest unit size. Current rules allow sufficient flexibility to create larger units if it can be show that a larger unit is necessary from an ecological standpoint.

FW-STD-TBR-08, FW-STD-TBR-09 and FW-STD-TBR-10. Tree species should not be the primary reason for regeneration harvest when the existing stand is composed of species commonly associated with the existing habitat type. For example, the presence of tolerant species should not be a sufficient reason for justifying regeneration harvest. The stand needs to have reached culmination of mean annual increment and have other characteristics that identify regeneration harvest as the optimum treatment.

FW-STD-TBR-11. - Timber harvest should not be allowed to exceed the SYL and decadal timber harvest should be limited to 10 times the PWSQ so that other resource objectives can be maintained. Regional office approval should be required to deviate from decadal PWSQ requirements in response to catastrophic events. Normal wildfire, disease, insect attack and windthrow events (as demonstrated by historical ranges and averages) should not be a sufficient reason to deviate from the decadal PWSQ.

FW-GDL-TBR-04. - The reasons for harvesting stands that have not met culmination of mean annual increment are concerning, particularly when the reason is to move the landscape vegetation to the desired landscape conditions you have outlined in the Proposed Forest Plan and your liberally defined WUI areas. Under these guidelines healthy young cedar, grand fir or Douglas fir dominated stands could be harvested merely because the species mix doesn[rsquo]t correspond to your preconceived notions or that the stand happens to occur in one of your liberally interpreted WUI areas. I also feel that the ages that displayed in Table 25 appear to be very low for the culmination of mean annual increment. Stands in the warm moist PVT generally don[rsquo]t reach commercial size until 70 years and the idea that they are culminated by that age seems to represent a misrepresentation of facts.

5.6.1 Recommended Wilderness

Your recommendations for proposed wilderness take away opportunities for wilderness protection on over 632,800-acres and give no opportunity for the public to debate other alternatives beyond what you have proposed in Alternatives W, X, Y and Z. A proposed citizen alternative has been developed by the Friends of the Clearwater and that would include all existing roadless areas, but you haven[rsquo]t given any consideration to this possibility. This alternative was supported by several thousand commenters on your proposed action including myself. The Forest Service could have at least evaluated this alternative, considering it is evaluating an alternative that has no recommended wilderness and was supported by far fewer commenters.

Perhaps a new alternative could be developed that would combine all existing roadless areas considered in Alternative W and Alternative Z into one comprehensive Alternative. This new alternative could include all recommended wilderness areas in Alternative W (856,932-acres) and other areas listed in Alternative Z (Pot Mountain (51,707-acres), Rawhide (5,681 acres), West Meadow Creek (95,800-acres)). It could also incorporate some of the other roadless areas not being considered in either Alternative W or Z. For example, Hungry Creek and Indian Creek in the Gospel Hump Geographic Area (55,000-acres), Pilot Knob GA (21,000-acres), Lochsa Face (75,000-acres), Weir Creek (22,000-acres), Radckliff-Gedney (90,000-acres) and Cove Mallard (63,000-acres).

MA2-STD-RWILD-02. This standard would allow snowmobile use in areas designated as recommended wilderness under Alternative Z. Motorized activity should not be allowed in any recommended wilderness area

under any alternative. Recommended wilderness should generally be managed under the standards and guidelines that are the same as those within designated wilderness.

MA2-SUIT-RWILD-02. Timber Harvest. Timber harvest to the extent allowed in the Idaho Roadless rule will preclude wilderness designation and should not be allowed in recommended wilderness.

MA2-SUIT-RWILD-04. Temporary Road Construction. Any construction of roads and even road construction to the extent allowed in the Idaho Roadless rule will preclude wilderness designation and should not be allowed in recommended wilderness.

MA2-SUIT-RWILD-06. Livestock Grazing [ndash] With the possible exception of outfitter and guide stock (used only during the guiding operation) and other animals being used for recreational and administrative activities, livestock grazing should not be permitted in recommended wilderness. Outfitter and guides should not be allowed pasture animals in recommended wilderness when the animals are not being actively utilized in their guiding operation.

MA2-SUIT-RWILD-07. Minerals-Locatable, MA2-SUIT-RWILD-08. Minerals-Leasable, MA2-SUIT-RWILD-09. Minerals Materials-Saleable. [ndash] New mining claims should not be permitted in recommended wilderness.

MA2-SUIT-RWILD-11. Replacement of existing buildings and structures (unless explicitly needed to protect resources or administer the area) - The construction of new buildings and the reconstruction of existing buildings should not be permitted in recommended wilderness.

MA2-SUIT-RWILD-12. Over-snow vehicle use. Snowmobile use should not be permitted in recommended wilderness under any alternative.

MA2-SUIT-RWILD-14. Mechanized travel (e.g., bicycles, game carts). Mechanized travel should not be permitted in recommended wilderness under any alternative.

MA2-SUIT-RWILD-15. Commercial Use of Permanent Structures. This standard should be reworded to [ldquo]Commercial use of existing permanent structures[rdquo]. New commercial use structures should not be permitted under any alternative.

MA2-SUIT-RWILD-16. Recreational aircraft landing, including unmanned aircraft systems. [ndash] Landing of aircraft and drones should not be permitted in recommended wilderness under any alternative.

MA2-SUIT-RWILD-17. Building replacement. Building replacement should not be permitted in recommended wilderness under any alternative.

MA2-SUIT-RWILD-18. Administrative use of chainsaws. Chainsaw use should not be permitted in recommended wilderness.

MA2-SUIT-RWILD-21. Administrative use of aircraft and drones. Administrative use of aircraft in recommended wilderness should be limited to emergency situations and the use of unmanned aircraft (drones) in recommended wilderness should be prohibited.

5.6.2 Suitable Wild and Scenic Rivers

Designation of Wild and Scenic Rivers is lacking on all alternatives. All 89 rivers that have been determined to be suitable for wild and scenic river classification, should be recommended to congress under the appropriate category.

5.6.3 Idaho Roadless Areas

The Idaho Roadless Rule was a broadscale look at roadless management across the entire State of Idaho. The Forest Plan should update that broadscale analysis with more site-specific information and management recommendations applicable to the Nez Perce [ndash] Clearwater National Forest. The Idaho Roadless Rule should be only considered as a guideline in this process.

It makes no sense to continue to manage areas recommended for wilderness in the Forest Plan under the Idaho Roadless Rule. Timber harvest and temporary road construction are permitted under the Idaho Roadless Rule in the back-country restoration theme. These activities are incompatible with wilderness designation and should not be allowed in recommended wilderness regardless of what the Idaho Roadless Rule has to say. These activities will compromise the potential for congressional action and potential wilderness designation.

MA2-DC-IRA-01. Recommended wilderness areas cannot maintain the same theme that was adopted in the Idaho Roadless Rule. The designations for these areas need to be changed to the primitive classification.

MA2-DC-IRA-02. Vegetation in areas recommended for wilderness should be managed like vegetation in existing wilderness areas. Timber harvest is not an appropriate tool in these locations.

MA2-DC-IRA-04. Motorized activity is inappropriate in recommended wilderness and themes need to be changed in areas recommended for wilderness in the Forest Plan.

MA2-DC-IRA-05. Why are elk featured in this desired condition to improve habitat configuration, distribution, composition and provide ecological conditions to increase populations? Would it not be more desirable to improve habitat for federally listed threatened and endangered species or species of conservation concern?

5.7.2 Lower Salmon River Geographic Area

Based on the unique character of the Lower Salmon Geographic Area, it sounds like it should be managed as a different Management Area entirely (See previous discussion).

[emsp]
Appendix 3: Monitoring Plan

As proposed the existing monitoring plan is not very specific on the monitoring tasks to be accomplished and no estimates of funding or personnel are given to accomplish this work. The monitoring plan is largely composed of implementation monitoring tasks and has little emphasis on effectiveness monitoring. The monitoring plan tracks items like acres harvested, fuel treatment acreages, and numbers of snags and live snags retained, but there is little information on the effectiveness of these activities on achieving management objectives. Without looking at the effectiveness of management practices, there is little emphasis on making the changes that the Forest Service suggests will be done as part of the adaptive management process

There are also no requirements in the Forest Plan to fund or accomplish the work identified in the monitoring plan. The Forest Service has a long history of not completing required monitoring and has not produced Forest Plan Monitoring Reports since 2004 on the Nez Perce National Forest and 2009 on the Clearwater National Forest. How can the public know that this work will get done given the Forest Service[rsquo]s past record of accomplishment on Forest Plan monitoring has been so dismal?

Please reconsider your extensive use of acronyms in the monitoring plan. The public has no idea what all of these acronyms stand for and how they relate to the monitoring plan. Please display the actual name of each

acronym and include an appropriate description of what the acronym stands for, what it does or the data behind it.

MON-TE-01 [ndash] This monitoring item deals with uncommon elements such as mineral licks, talus slopes, fractured wet bedrock, rocky outcrops, scree slopes, waterfalls, and geologic inclusions. According to the monitoring item, these elements will be searched for during project planning and surveys will be undertaken to determine types, size, quality and number of endemic species. The exact measures of the surveys have yet to be determined, suggesting that this monitoring item has not been very well thought out.

Will a Forest level inventory of uncommon elements be produced for future reference based on project level surveys? Will this inventory include the location, type of element and a list of endemic species that are located during the project level survey? Will monitoring be limited to globally imperiled and globally critical imperiled species as implied in FW-GDL-TE-01 and what other species will be searched for besides the Coeur d[rsquo] Alene salamander? What sorts of protection will be applied to these uncommon elements once they are located? For example, will no harvest buffers be maintained around the areas and if so, how large will these buffers be? Please describe what the abbreviations NFM and PALS stand for.

MON-TE-02 [ndash] What are the species of pollinators that the Forest Service intends to monitor under this monitoring item? What habitats are important to these species and how will the Forest Service know when they have achieved the [ldquo]desired condition[rdquo] for forest pollinators. As written this monitoring item is very vague and does not have any specific monitoring criteria. We don[rsquo]t even know what species of pollinator we are looking for let alone the habitats we are trying to enhance or protect. This monitoring item needs to identify the important pollinator species and habitats that are going to monitored under this item. Monitoring of preconceived ideas of what constitutes desired habitat for pollinator species offers no real insight into how pollinators are being impacted.

MON-TE-03 [ndash] This monitoring item deals with habitat fragmentation and maintaining dispersal and migration corridors across the landscape. It is really difficult to understand how this monitoring item is really going to be accomplished since there are no real objective criteria for evaluating it. Any evaluation is going to be very subjective and offer very little real value in terms of monitoring fragmentation. Monitoring metrics of forest fragmentation are needed here.
Please describe what the abbreviation FACTS stands for.

MON-FOR-01 [ndash] This monitoring item deals with aspen and is an implementation monitoring item that keeps track of the number of acres of aspen that are being harvested. It does not track if these treatments are actually being successful in accomplishing their goals. For example, is the regeneration harvest unit actually regenerating to aspen and how have these treatments changed wildlife use patterns. To do that one likely would actually need some actual examination of the treatment units and the wildlife use before and after aspen harvest.

MON-FOR-02 - This is another implementation monitoring item based on largely on the PVT and desired species composition and structure of existing forest stands. The monitoring item generally tracks acres treated in the various PVTs and details changes in species composition and structural classes based on these treatments. This monitoring item appears fairly strait forward as the treatment acreages should be easily obtained from project files and timber harvest data.

It is unclear how helpful that the number interdisciplinary reviews will be to this process. It would be more important to the public to see published reports of all post-project interdisciplinary reviews. The percentage of projects that the Forest is proposing to visit and an outline of what the interdisciplinary team intends to monitor would be helpful to list under this monitoring item.

The examination for insect and disease hazards needs to be better described and appropriate metrics assigned

to what qualifies as a high, medium and low infestation area for bark beetles, spruce bud worm and root rot. Acres of infestation need to be quantified for each insect or pathogen. Overlapping acreages should not be double counted, as it is common for root rot and bark beetles to be found together. Acres treated may be appropriate value to monitor, but the value of these numbers is of little significance unless we don[rsquo]t know the context of these treatments. For example, how many acres of highly infested areas exist on the Forest and how many acres were actually treated.

What is the Broader Scale Monitoring Strategy (BSMS) and how will this be accomplished with FIA data? FIA data is only collected every ten years and generally would not be responsive to insect and disease outbreaks. It would also be difficult to detect the PVT changes that you describe in this monitoring item with the limited FIA plots that are located on the Forest. It would seem that remote sensing and additional plot data would be necessary for the detailed species and structural components that you wish to monitor with this monitoring item. No interval for data collection is identified in the monitoring report.

MON-FOR-03 - This monitoring item is supposed to monitor the amount of old growth on the forest and monitor treatments and road construction in existing old growth stands. The monitoring item uses the Green et al. (1992) screening criteria and FIA data to establish the amount of old growth on the Forest on an annual basis. A process that has already been completed on both the Nez Perce and Clearwater National Forests and which I have previously discussed in my comments.

Using 712 FIA plots and basing your entire old growth monitoring strategy on the number of large diameter trees per acre is not a sufficient strategy for monitoring old growth. FIA plots are only remeasured every ten years and with no guidance in the Forest Plan that restricts the harvest of old growth, it is very unlikely that the FIA monitoring strategy would detect changes in the amount of old growth until there are significant losses.

The Nez Perce Clearwater NF needs an actual inventory of actual old growth stands that can be identified on the ground and within GIS data bases. Identification of these stands can be facilitated by using the Green et al. (1992) screening criteria and the stands need to be confirmed as actual old growth by a qualified ecologist or wildlife biologist as suggested in the Green et al. (1992) guidelines.

This monitoring item also proposes to monitor harvest treatments and road construction within existing old growth. I agree it would be good to know the acreage of old growth stands being manipulated with timber harvest and how many old growth stands are being bisected by a new road. I do not agree that timber harvest is an appropriate tool to manipulate existing old growth stands and the idea of monitoring a practice that should have never been permitted in the first place seems inappropriate to me. I would also like to know how many acres of existing old growth are being harvested each year, as this measure is not mentioned in this monitoring item.

The revised Forest Plan suggests that there are [ldquo]preferred[rdquo] kinds of old growth and this premise appears to one of main reasons for conducting vegetation treatments within existing old growth stands. In my opinion, there is no such thing as a [ldquo]preferred[rdquo] kind of old growth. Forest habitat type is what controls the kind of old growth that is found on any particular site. Ponderosa pine, white pine and larch can grow on cedar habitat types, but later successional stages in this habitat type are going to be dominated by more tolerant grand fir and cedar. Likewise, ponderosa pine habitat types should not be expected to support cedar and white pine old growth.

Old growth develops in the later stages of forest succession and it is more than just the number of large diameter trees. Components like downed logs, snags, understory vegetation, tree decadence and canopy gaps are all important factors identifying old growth. Human preference for any particular kind of old growth should not be a factor in identifying old growth and the idea of manipulating stands (particularly with timber harvest) to develop into a certain kind of old growth seems ridiculous to me. There may be some justification for prescribed burning, particularly in areas where fires have been suppressed. Otherwise, I don[rsquo]t think existing old growth stands

need human intervention.

The monitoring item suggests that acreage of vegetation treatments within existing old growth be identified and monitored to see if they are still meeting the Green et al. (1992) screening criteria. I do not support timber harvest withing existing old growth stands, and cannot support this monitoring item. A stand can certainly meet the Green et al. (1992) screening criteria for the number of large trees per acre and still not be old growth. For example, a shelterwood harvest unit with 10 trees per acre over 21-inches meets the screening criteria, but it is certainly not old growth. Old growth stands should not have stumps and skid trails and other evidence of human manipulation.

MON-FOR 05 - This monitoring item deals with snag and live tree retention in harvest units and project areas. It is an implementation monitoring item that just monitors the fact that snags and trees are being retained in numbers that the Forest Plan indicated. There is no monitoring of the effectiveness of the Forest Plan snag and live tree requirements for the species that depend on dead and decadent trees. The Forest Service needs to consider the guild of species that depend on snags and downed wood and monitor populations of these species to assure that populations are being maintained across the two Forests as required in the National Forest Management Act. Monitoring of cavity nesting species, like woodpeckers and forest owls would seem to be an appropriate consideration for understanding if snag and live tree recommendations are truly working for species that utilize these habitats. Fisher and marten populations are also good indicators of that snag and downed woody debris mitigation measures.

MON-FIRE-01 [ndash] This is another implementation monitoring item which merely tracks the acreages of fuel treatments and the acreage of wildland fires that were managed for resource benefit. There is no evaluation of the effectiveness of these activities. For example, what trees species are being regenerated as the result of these wildfires, what is the stocking level of these trees, how much forage production is occurring, how long is this forage available and are the treatments actually reducing the level of catastrophic wildfire in comparison to untreated areas?

MON-FIRE-02 - This monitoring item deals with fuel treatments within the wildland urban interface and merely tracks the acreage of fuel treatments that are occurring in the wildland urban interface. There is no evaluation in regard if these practices are actually being effective in reducing wildfire within the wildland urban interface and if such practices are actually reducing the risk to structures located in these areas. What does the abbreviation FTEM stand for?

MON-FIRE-03 - This monitoring item deals with the acreage of wildland fires that were managed for resource benefit and seems redundant with MON-FIRE-01.

MON-WTR-01- This monitoring item deals with partnerships and the cost of watershed improvement projects. The monitoring item should display the total cost of watershed improvement projects along with the percentage match by various partners.

MON-WTR-02 [ndash] What does the abbreviation WIT stand for?

MON-WTR-03 [ndash] This monitoring item relies on PIBO (PACFISH INFISH Biological Monitoring) data to evaluate instream habitat conditions of the existing watershed streams on the Forest. Protocols are well established for the PIBO monitoring, but this monitoring occurs in limited locations and tends to concentrate on major drainages like the Lochsa River or the South Fork of the Clearwater. More focused monitoring is needed for Forest Plan drainages and project planning. What actual parameters are going to be collected in smaller Forest Plan drainages? There should be measurements of cobble embeddedness and impacts to fish habitat.

MON-WTR-06 [ndash] It is good that you are reporting the number of clear-cuts by size class in individual

drainages. Will ECA (Equivalent Clear-cut Acres) also be reported?

MON-WTR-08 - This is another implementation monitoring item that tracks the number and acreage of watershed improvement projects. While this is good information to know we need more information on the habitat effectiveness of this work. Monitoring of watershed improvement projects needs to include pre and post project monitoring of items like cobble embeddedness, amount of woody debris in the channel, pool numbers, fish response and other appropriate factors that will help to determine the success of the project.

MON-WTR-09 - Again most emphasis of the monitoring item is focused on the number of BMPs that are implemented and not on the effectiveness of those BMPs. BMPs need to be evaluated individually to actually document their effectiveness. For example, if BMPs are supposed to stop sedimentation a scientific study needs to be conducted to show the actual effectiveness of that work. Such a study needs to have statistically reliable sampling method and be designed to evaluate the effectiveness of the individual practice.

Past BMP reviews have generally consisted of field reviews that include very little actual on the ground data collection. What usually happens is that the ID team goes out to the project area in the middle of the summer and takes a general overview of the project. If they don[rsquo]t see any obvious sedimentation in the form of instream sediment accumulation, there is a conclusion that the BMPs are working and effective. The problem with this approach is that by the time the ID team conducts their visit, it is often difficult to see sedimentation impacts that generally occur during high spring flows. Sedimentation has either moved downstream or it is obscured by vegetation that has grown up since the spring. Observations are generally opportunistic and of limited extent and would not stand up to a scientifically sound evaluation.

MON-WTR-10 - The monitoring item does not include any ground evaluation and is pretty much useless. The monitoring item consists of reviewing NEPA documents to see if practices that are supposed to be favorable to watershed condition have been included in the document. While, it is important to get these practices in the document, on the ground results are really what needs to be monitored.

MON-CWN-01 [ndash] This monitoring item deals with the road network in conservation watershed networks. It is also and implementation monitoring item that reports the miles of road construction, road reconstruction and road maintenance in the conservation watershed networks.
What does the abbreviation INFRA stand for?

MON-CWN-02 [ndash] This is another NEPA evaluation exercise which doesn[rsquo]t really shed much light on anything. The monitoring item talks about if [ldquo]multiscale analysis is used in NEPA, if restoration measures are included and if the NEPA document, and if BMPs or restorative design features are incorporated into NEPA. Again, these are important components of the NEPA document, but the important consideration for the monitoring report is how these practices play out on the ground and if they are actually effective in improving conditions in the stream of concern.

MON-RMZ-01 - This item deals with the reporting of activities within riparian management zones. It is generally focused on implementation monitoring and has two components. The first component deals with activities designed to improve riparian condition such as the decommissioning or improving of existing roads, removal of stream crossings, acres of riparian planting or reconstruction of floodplains. The second component deals with the acreage of vegetation treatments within the riparian management zone.

There appears to be no monitoring of the effectiveness of these treatments. For example, does instream cobble embeddedness decline after roads and stream crossings are removed. Does stream temperature change in the years following tree planting or vegetation removal? Does planting and timber harvest change the distribution of woody debris in the stream channel?

Wildlife Monitoring

The wildlife monitoring section is very vague on what exactly will happen for the various species of concern identified in the plan. Data responsibility largely seems to be relegated to the Idaho Fish and Game and obtaining data from existing sources such as the Idaho Heritage Database. There is generally no mention of any systematic surveys by the Forest Service for any species of concern. No cost estimates are given for any of the proposed work and no agreements are discussed with universities of other agencies that will actually conduct surveys for the species of concern. Statistical reliability of the monitoring data to be collected is not discussed anywhere in the plan.

MON-WL-01 - This monitoring keeps track of suitable and unsuitable lynx analysis units and lynx sightings. It relies on Regional office habitat modeling and sightings from the Idaho Heritage Conservation Data base and something called NRM-Wildlife. Can you please define your acronyms? The monitoring item makes no mention of any systematic Regional or Forest level monitoring efforts using methods like camera traps of hair sampling to document lynx presence.

MON-WL-02 [ndash] This monitoring item deals with habitat for the white-headed woodpecker. It tracks acreage of large diameter ponderosa pine stands and stands encroached upon with understory DF and GF (presumably within the range of the species). Evidently, the Forest Service also has some sort of agreement with Boise State University to tack occupancy of white-headed woodpeckers. Nothing is shared in the monitoring plan about this agreement and what will actually be done by Boise State. What is the estimated cost and is a study plan available? There is a wide array of data sources listed and acronyms abound in this list. Again, please define these acronyms. I am curious how eDNA will be collected and utilized to monitor white-headed woodpecker populations.

MON-WL-03 [ndash] This monitoring item deals with monitoring harlequin ducks. It suggests that harlequin duck populations will be monitored in selected stream reaches and that the number of occupied watersheds will be monitored. The monitoring plan includes little detail about exactly how this will be accomplished. The monitoring plan also suggests the PIBO habitat data will be used to monitor harlequin duck habitat, but the parameters to be monitored are yet to be determined. There is no mention of monitoring the impact of recreational activities such as river rafting or riparian habitat development. It appears that most responsibility for monitoring populations of this species is being delegated to the Idaho Fish and Game, but no formal cost share agreements or outline of what is being proposed is presented in the monitoring plan. Once again, acronyms abound in the data sources.

MON-WL-04 [ndash] Mountain quail are monitored under this item. Monitoring is supposed to occur on a number of occupied and unoccupied sites, but numbers and locations are not listed in the monitoring plan. There is no information on how occupancy of use areas will be determined and how often these sites will be visited before they are determined to be unoccupied. Shrub habitat is supposed to be monitored with aerial photographs. Monitoring responsibility appears to be relegated to the Idaho Fish and Game Department, but no formal cost share agreements or outline of the monitoring program is presented.

MON-WL-05 - This monitoring item deals with habitat fragmentation and migration corridors and has several metrics that will be evaluated, including the acreage of harvest of mature forest and acres burnt in wildfires. It has some questionable metrics that are very subjective and will be difficult to obtain. For example, how do you know if corridor guidelines are being followed when no corridors have been identified in the Forest Plan for protection. Do large harvest units, prescribed burns and wildfires contribute to the desired patch size or are they just barriers to migration?

Overall, this monitoring item seems pretty subjective and I doubt it will have much influence on project implementation other than to provide justification for larger harvest units. Generally, habitat fragmentation and impacts to migration corridors is going to depend on the harvest level that is selected in the Final Forest Plan.

You can expect more habitat fragmentation and impact on migration corridors with Alternatives W and X.

MON-WL-06 [ndash] This monitoring item deals with fisher habitat. It tracks acres of open area (early forest succession), mature forest over 25 meters high and mature forest connectivity. Relative connectivity is supposed to be evaluated by some sort of metric that was adopted from the work of Sauder and Rachlow (2014). The details of the relative connectivity metric are not discussed or even summarized in the monitoring plan, and it is unknown how this is supposed to work.

The monitoring item also mentions that detections of the fisher will be monitored, but the protocol for conducting these detections is not discussed. Presumably, some sort of regional protocol is being developed and data is to be stored in the Regional Mesocarnivore Database. The monitoring plan should summarize exactly how fisher populations will be monitored.

I believe it would also be helpful if Fisher Analysis Units, similar to Lynx Analysis Units, were identified across the Nez Perce [ndash] Clearwater National Forest. I believe each of these units should then be evaluated for suitability according to the Sauder and Rachlow (2014) publication and tracked for changes to suitability over time. Such analysis would give a much better representation of how fisher habitat is changing across the forest, rather than a habitat evaluation that just reports total openings and the amount of mature forest over 25-meters high.

MON-WL-07 [ndash] This monitoring item tracks big horn sheep. It relies on population estimates from the Idaho Fish and Game and also tracks the amount of habitat alteration in big horn sheep habitat. Presumably habitat actions which benefit big horn sheep are prescribed fire and wildfire that occurs on natural grassland and shrub dominated sites near steep escape cover. Monitoring of potential impacts from domestic sheep grazing and human disturbance do not appear to have been considered in this monitoring item.

MON-WL-08 [ndash] This monitoring item deals with bats and generally appears to be associated with mine closures. The monitoring item tracks the number of closures with bat friendly devices and the number of mines closed without bat friendly devices. It also tracks any incidences of white-nose syndrome which may occur within or near the Nez Perce-Clearwater Forest in the future. The monitoring item also tracks if bat surveys have been conducted at existing mines to determine the presence of bats. I would note that bat presence may require more than a single visit establish if the mine is being utilized. What does the acronym TESP-IS stand for?

MON-WL-09 [ndash] This monitoring item deals with maintaining huntable populations of big game. It relies on population estimates from the Idaho Fish and Game and generally is a ledger of actions taken to improve habitat for these species including actions to produce forage and increase security.

MON-WL-10 - This monitoring item deals with the protection of mountain goat habitat. It is generally a listing of the amount of motorized use that is occurring in mountain goat habitat. The monitoring item also talks about listing the number of actions undertaken to improve mountain goat habitat.

Mon-ELK-01 - This monitoring item tracks the acreage of treatments that are supposed to produce high elk forage potential using GIS layers. The monitoring item does not track the effectiveness of any of these treatments, there are no estimates of browse production and no estimate of actual use by elk. It is basically an implementation exercise that tracks acreages of prescribed burning, wildfire and timber harvest.

The monitoring item needs further adjustment to account for motorized traffic and the distance to adjacent hiding cover. Elk are reluctant forage in areas that are a long distance from hiding cover and they also avoid areas near open roads and trails open to motorized use. Servheen (1992) found that elk seldom foraged greater than 500 feet from existing cover and other researchers have noted that elk also avoid areas with high levels of human activity especially during the hunting season (Ranglack et al. 2017, Wisdom 2018).

For example, Ranglack found that elk avoided areas < 5,000 feet from roads open to motorized traffic during the rifle hunting season, Wisdom (2018) found that the mean separation between elk and recreationist using ATVs on forest trails was approximately 2,900-feet during the summer. Wisdom (2018) also reviewed the literature and found that the general avoidance distance by elk to motorized roads was approximately 1,600 to 5,000 feet outside of the hunting season He stated [ldquo]Avoidance responses by elk distance to open road density, have been documented consistently and overwhelmingly by > 30 studies conducted during the last 5 decades in forested areas of western North America.[rdquo]

Your assumptions of forage availability are largely based on presumed browse production that you don[rsquo]t even measure, but much of this forage is likely not available to elk because of human disturbance and the tendency of elk to avoid foraging in areas that lack adjacent cover. Please adjust your GIS layer of high-quality forage availability so as to include reductions the distance to open roads and distances to forest cover. Based on information from Servheen et al. (1992), reductions in forage values in areas that are farther than 500-feet from cover that is at least 800-feet wide would be appropriate. The findings of Ranglack et al. (2017) and Wisdom et al. (2018) suggest that forage values should also be reduced in locations adjacent to roads and trails open to motorized use. I suggest at least using the midpoint of values identified by Wisdom (2018) from the literature which would be approximately 3,300 feet.

MON-ELK-03 -The monitoring item appears to be a repeat of Mon-ELK-01, but it differs by only tracking the acreage of high-quality forage being created in MA-2. It is expected that this acreage will be largely the result of prescribed burning and some timber harvest. Like MON-ELK-01 it is largely an implementation monitoring item with no actual measurement of browse production or availability.

MON-ELK-04 [ndash] This monitoring item tracks the number of projects that fragment previously inaccessible lands with motorized access. The number of projects means very little when we don[rsquo]t know the extent of each proposal. Road and motorized trail density would be a better measure of elk habitat potential. This should be measured by elk evaluation areas and methods previously described by Servheen et al. (1992) unless a better on more scientifically method can be identified. For years, the Nez Perce [ndash] Clearwater NF has indicated that a better method of elk habitat effectiveness modeling would be outlined in the upcoming Forest Plan Revision, but all we have gotten is the idea that forage production is the major consideration in improving elk habitat and this vague monitoring item which allows existing roadless areas to be divided into 5,000 acre blocks of habitat.

MON-ELK-05 [ndash] This monitoring item is very similar monitoring item MON-ELK-01 and MON-ELK-03 except that it tracks the acreage of presumed high-quality elk forage production created by wildfires. Once again there is no measure of actual browse production and any assessment if the areas are actually being utilized by elk. Over the years numerous techniques have been developed for measuring browse production elk including exclosures, twig counts and pellet group analysis, but none of these techniques are utilized under this monitoring item.

MON-ELK-06 [ndash] This monitoring item is very similar monitoring item MON-ELK-01 and MON-ELK-03 except that it tracks the acreage of high-quality elk forage production created in MA-3. Presumably, most of this forage will be created by timber harvest.

MON-ELK-07 [ndash] This monitoring item is supposed to track changes in body fat of cow elk, but it does not actually measure the body fat of a single animal. It is basically a repeat of the other forage production measurements which all are just implementation monitoring of the acreage of wildfire, prescribed burning and timber harvest that is supposed to improve forage production. There is no actual measurement of the amount, type and quality of actual forage production in the field. There is also no actual measurement of browse utilization by big game in the field.

MON-WMTR-01 [ndash] This is another implementation monitoring item that tracks actions within municipal watersheds and source water protection areas. It also tracks if new municipal watersheds are established. More important monitoring items might include things like turbidity levels, E. coli counts or other factors that reduce the municipality[rsquo]s ability to utilize the water source. Days the city is not able to utilize their intake and the reasons behind those delays are better measures of impacts to municipalities, rather than how many Forest Service actions are occurring within the municipal watershed.

MON-TBR-03 [ndash] This monitoring item needs to track the numbers of clear-cuts by various size classes over 40-acres and not just by the number over 375-acres. Since clear-cut numbers and sizes of clear-cuts over 40-acres are already being tracked in MON-WTR-06 this monitoring item seems duplicative and unnecessary.

MON-RWILD-01 [ndash] Actions in recommended wilderness should be held to the same standards as actions in existing wilderness. The proposed alternatives allow too many exceptions such as allowing snowmobiles, chainsaws, temporary road construction and timber harvest. These actions are not compatible with wilderness. Please monitor all actions in recommended wilderness as you would in existing wilderness areas.

MON-RWILD-02 - The Forest Service has not been consistent in monitoring trends in roadless areas (Friends of the Clearwater Roadless Report 2019). In RARE II and other past evaluations areas of timber harvest and road construction were generally cause for exclusion of an area as roadless or recommended wilderness. The Idaho Roadless Rule changed that dynamic by permitting logging (back country restoration) and [ldquo]temporary[rdquo] road construction. Temporary roads are defined as roads that are built for the logging operation and then obliterated after the logging is completed. Evidence from past projects (Orogrande Community) and other proposals have shown the that Forest Service is generally a poor judge of trends in wilderness characteristics.

More recent evaluations have allowed fairly extensive timber harvest activities with the idea that stands will eventually grow back to conditions that would be suitable for wilderness protection. The same idea has been applied to [ldquo]temporary[rdquo] road since the decommissioned road prism will be planted with native species which will also grow back.

Harvest and temporary road construction will create impacts that will last for at least 100-years and temporary road corridors likely will never have the same characteristics as undisturbed areas. Soil compaction, topsoil disturbance and interruptions of underground water flow is likely to modify these unnatural linear features for long time frames. The corridors created by temporary roads will also encourage unauthorized motorized travel and such corridors are likely to receive more concentrated legal activity. For example, it is not uncommon for user created hiking trails to be created along obliterated temporary road corridors.

In summary, the evaluation of the trend in wilderness characteristics can be very subjective. I would rather see a more emphasis on reporting the acreage of timber harvest and the mileage of temporary road construction authorized in proposed wilderness. Acreages and mileages of other activities that generally would not be permitted in wilderness should also be reported. For example, how many miles of trail have been maintained by chainsaw, how many miles of trail have been opened to mechanized travel, how many acres of snowmobile use have been authorized, or where are drowns and aircraft being allowed in proposed wilderness.

MON-DWSR-01 and MON-DWSR-02 [ndash] I agree that activities in designated wild and scenic river corridors need to be consistent with the Comprehensive River Management Plan, but am apprehensive regarding timber harvest, road building and landing construction within any wild and scenic river corridor. Please be sure to report all timber harvest, road construction and landing construction that occurs within designated wild and scenic corridors.

MON-SWSR-01 [ndash] It is unclear if this monitoring item will evaluate all suitable wild and scenic rivers on the Nez Perce [ndash] Clearwater NF or just those rivers that are selected for recommendation to Congress. I believe all currently suitable rivers need to be monitored,

MON-IRA-01 [ndash] I agree that activities in roadless areas need to be monitored and items like the acreage of timber harvest and temporary road construction miles need to be reported. The Idaho Roadless Rule needs to be modified for any areas recommended for wilderness. These areas need to be protected under the guidance of the Primitive classification and logging and temporary road construction should not be allowed.

MON-IRA-02 [ndash] Any existing roadless areas that are recommended for wilderness designation in the Forest Plan need to be switched to the Primitive management theme under the Idaho Roadless Rule. Management under the Back-country Restoration theme that permits timber harvest and temporary road construction is not appropriate for Recommended Wilderness.

Sincerely,

Harry Jageman
[emsp]
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