

March 27, 2019
1228 Ponderosa Drive
Moscow, Idaho 83843

USDA Forest Service
Objection Reviewing Officer
26 Fort Missoula Road
Missoula, MT 59804

Subject: Little Boulder Project

Dear Sir:

Attached are my objections to the Final Environmental Impact Statement and Draft Record of Decision for the Little Boulder Project. Overall, I thought the proposal was very excessive, given the past history of timber harvest in the project area, the ongoing impacts of the recent Cherry Dinner project and the intensity of timber harvest on lands surrounding the project area. Given the condition of the streams (high levels of cobble embeddedness, high water temperatures and high *E. coli* levels), I don't think the project area needs additional new roads, and I do not support the reconstruction of temporary Road 820313. Given the condition of project area watersheds this road should be decommissioned. The large harvest units (several of which have been consolidated into large blocks that are only separated by PACFISH buffers) are not appropriate for an area that is prime habitat and winter range for white-tailed deer. White-tailed deer and other species such as elk and fisher are known to avoid large open areas and all have a need for hiding cover which the project will eliminate.

Objection 1 – Failure to utilize Forest Plan identified drainages for the fishery and watershed analysis

The FEIS fisheries and hydrologic analysis uses three HUC 12 watersheds, but fails to provide adequate information for two other drainages identified in the Clearwater Forest Plan (Little Boulder and Ruby Creeks). These smaller drainages are more applicable to impacts that will occur at the project scale and are composed of lands that are primarily controlled by the US Forest Service. Using the HUC 12 watersheds tends to dilute project area impacts, increases uncertainties related to activities on private land and is not in compliance with the existing Clearwater Forest Plan since drainages identified in the plan (Appendix K) have not been fully analyzed. While the Fisheries and Aquatic Specialist Report does provide some existing information in regard to conditions in the Little Boulder and Ruby Creek drainages, most of this information has not been brought forward into the FEIS.

The biggest problems with the HUC 12 watershed analysis can be seen in the Hog Meadow – Potlatch River HUC-12 sub-drainage. This area is composed of Little Boulder Creek, Hog Meadow Creek, Brush Creek and several smaller face drainages all of which flow directly into the Potlatch River. There is no hydrologic connection between Little Boulder, Brush and Hog Meadow Creeks. Hog Meadow Creek and Brush Creek both join the Potlatch River downstream of Little Boulder and Ruby Creeks. Brush Creek is so far downstream that it joins the Potlatch River less than a mile above the Forest and project area boundary.

While there are some fuel treatments in Hog Meadow Creek, there do not appear to be any harvest activities that might influence downstream conditions. The situation in Brush Creek is very similar and it appears that a small portion of ridgetop harvest unit (25) unit might occur in the Brush Creek drainage, and the only activities that occur in the main Potlatch River drainage below the mouth of Brush Creek is fuel treatment unit fifty-one. There is absolutely no reason to include Hog Meadow and Brush Creeks in the watershed analysis area for this project and lump them together with Little Boulder Creek which is a Forest Plan identified watershed.

While activities that occur in Hog Meadow Creek, Brush Creek and Little Boulder Creek can influence the main Potlatch River, activities that occur in any of these three drainages cannot influence what is happening in the other drainage. This is a physical fact that cannot be ignored by the Forest Service and any analysis that tries to combine water yield data, road density data or sediment numbers to determine the watershed condition in a given stream from three completely disconnected streams is scientifically indefensible. This is the same for the face drainages that flow directly into the Potlatch River, which also have no influence on Little Boulder Creek. Therefore, lumping all of these drainage areas into one analysis area for sediment production and watershed characteristics is inappropriate.

Even if there are extensive impacts on private lands in these HUC 12 drainages, adding the acreage will tend to mask activities on smaller Forest Service controlled drainages like Little Boulder Creek and Ruby Creek. In the Fisheries and Aquatics specialist report it is reported that the existing ECA is 7.6% in Little Boulder Creek and that proposed harvest would increase the ECA to 19% in this 3,433-acre drainage. This is near the water yield threshold of concern which is listed as 20% in the FEIS (Page 161).

In contrast, the FEIS hydrologic analysis suggests the ECA in the Hog Meadow HUC 12 watershed is now 8% and will increase to 12% as a result of the project (Table 3.7.5). Considering these numbers and FEIS conclusions regarding ECA in the Hog Meadow HUC 12 watershed, it is very clear that the addition of Hog Meadow Creek, Brush Creek and other face drainages of the Potlatch River into the watershed analysis are only diluting the impacts of the Little Boulder project and not increasing cumulative effects as you claim in the FEIS (page 339).

We see a similar problem in Ruby Creek where the analysis is being done for the entire East Fork of the Potlatch River. Most activity in the large HUC 12 watershed has no impact on Ruby Creek, which is a tributary of the East Fork of the Potlatch River. The FEIS defends, actions in Ruby Creek by stating that there are only 100 acres of timber harvest, 0.5 miles of temporary road and 0.7 miles of road conditioning in the Ruby Creek Drainage (FEIS 339). However, most of the road reconditioning is really reconstruction of an undriveable cattle trail (Non-system Road 820313) that will be added to the system following the proposed sale. Road 820313 actually appears to be much longer than 0.7 miles reported in the FEIS. A portion of the road that extends to units 13a and 13b appears to be at least 1.5 miles in length, and apparently was not considered in the Ruby Creek drainage since it occurs along the watershed divide between Ruby Creek and an unnamed tributary of the East Fork of the Potlatch River.

Contrary to statements on page 339, no road obliteration is proposed as the FEIS now proposes to place that portion of Road 820313 (0.3 miles) into long-term intermittent storage. Statements that all roads are located on the ridgetop are also in error, as there is a need for the new bridge on Road 3308 where it crosses Ruby Creek at the current ford (FEIS Page 37). A new culvert will also be required where Road 820313 crosses an unnamed tributary of Ruby Creek. The beginning of both roads (3308 and 820313) parallel this unnamed tributary. Road 820313 eventually does reach a ridgetop location, but the portion of existing Road 3308 which will be reconstructed for the sale is located entirely on a mid-slope location after leaving the riparian area of the unnamed tributary.

The Fisheries and Aquatics report also acknowledges that an unnamed tributary of the East Fork of the Potlatch River is known to support steelhead. A considerable amount of timber harvest is proposed in this tributary and is associated with harvest units 13, 15, 15a and 36. Private lands in the upper reaches of this drainage have also been recently harvested and it is likely that activities in this smaller drainage will exceed the 20% ECA threshold identified in the FEIS. As a stream that is known to support a listed species, this stream should have been analyzed independently in the FEIS and aquatic analysis. Lumping impacts into the larger East Fork HUC 12 analysis clearly dilutes impacts to the any steelhead that might utilize this tributary.

Objection 2 – Failure to consider existing instream conditions and the impact of past management actions on stream conditions as required by the Forest Plan

Problems with the drainage analysis areas aside, the FEIS is very confusing regarding the impacts of proposed project on fisheries and water quality. Estimates of sediment yield for the existing condition are provided in the document for the three HUC 12 drainages (Table 3.7.2), but there are no predictions of sediment yield for the various alternatives other than to suggest that no measurable sediment will be produced by the proposal due to PACFISH buffers and best management practices that will be applied to roads.

Reliability of the existing condition numbers are further called into question by the following statement in the FEIS (Page 156 – Just below Table 3.7.2 that displays these numbers): “All measured sub-watersheds in the Little Boulder project area meet the Forest Plan standard for sediment, based solely on landscape sediment and not including road-generated sediment. Because it is well-known that sediment in forest landscapes is largely due to roads, the above results are incomplete. Also, forest level monitoring indicates that the Potlatch River is not meeting standards/has high levels of cobble embeddedness/etc.”

The FEIS only reports instream cobble embeddedness for the Potlatch River and the East Fork of the Potlatch River based on data from 1994 and 2005. The data indicates that neither stream is within the desired goal of 30-35% cobble embeddedness. Data from the Potlatch River showed an average cobble embeddedness of 49% in 1994 and less intensive surveys in 2005 showed that cobble embeddedness was 36%. FEIS data from the East Fork of the Potlatch River showed an average cobble embeddedness of 58% in 1994 and less intensive surveys in 2005 showed an average cobble embeddedness of 43%. However, the Fisheries and Aquatic specialist report suggests that a 2014 survey of East Fork Reach efp05 showed that cobble embeddedness was 58% in 1994 and 50% in 2014. There is no mention of the 2014 data in the FEIS.

Cobble embeddedness conditions in Ruby Creek and Little Boulder are not displayed in the FEIS and only suggest that neither of these streams are meeting Forest Plan standards for cobble embeddedness. The FEIS reports that Kee and Schoen (2009) found high levels of cobble embeddedness in Ruby Creek, but does not provide any numbers. The Fisheries and Aquatic specialist reports that cobble embeddedness was 70% in reach rbe02 in 2009 and increased to 73% in 2014. It is unclear as to why these numbers were not displayed in the FEIS.

Likewise, the FEIS does not report any data for Little Boulder Creek, but suggests that cobble embeddedness increased by 7% in that drainage from 1994 to 2005. The Fisheries and Aquatic specialist report suggest that cobble embeddedness in Reach lb09 was 59% in 1993 and was 71% in 2014. Again, it seems this information should have been carried forward into the FEIS as it is critical to understanding instream conditions in the project area. No data is available for Hog Meadow Creek in either the FEIS or the fisheries and Aquatic specialist report, presumably due to the intermittent stream conditions in this drainage. Hog Meadow Creek often goes dry during the summer.

Based on these instream conditions how can the Forest Service suggest that the Forest Plan standards for sediment are being achieved? The existing forest plan objective is 30-35% cobble embeddedness and you have cobble embeddedness levels over 70% in both Ruby and Little Boulder Creek and the conditions in the East Fork and Potlatch River aren't much better. The bottom line is that the Forest Service really doesn't know what is happening in project area streams and if those streams are currently meeting Forest Plan standards. Be it high temperature or sediment accumulation all indications are that project area streams have not recovered from past actions and other ongoing activity such as cattle grazing,

Objection 3 - Unrealistic assumptions that no measurable increases in stream sedimentation will occur as a result of the project

The Forest Service tries to make the claim that instream conditions really don't matter because the project has been designed to result in no increase in measurable sediment. They base much of this conclusion on the fact that they have included PACFISH buffers and that they will build roads on ridgetops. PACFISH buffers do not stop sedimentation once it gets into the stream. Much of the proposed logging and fuel treatment will be conducted with ground based heavy equipment. Use of such equipment will create skid trails, landings and temporary roads that will link directly to existing roads and road ditches. These in turn are linked to small streams that can carry sediment to larger fisheries streams. Exposed areas of mineral soil will be created, particularly in areas that are subject to machine piling.

All of these areas are subject to erosion and it is unrealistic to assume that you can harvest 1501 acres with regeneration harvest, treat fuels on an 1183 acres largely with heavy equipment, build 5 miles of new road, construct over 10 miles of temporary road, expand two rock quarries, reconstruct or recondition 24 miles of existing road, and replace several existing culverts or other drainage structures and not create any measurable sediment.

The Forest Service has run numerous models to back up their conclusions (WEPP, WEPP watershed online, WEPP Road, Disturbed WEPP etc.), but the assumptions used in these models have not been clearly articulated in the FEIS or the hydrology specialist report. Basically, the Forest has assumed that their proposed best management practices will result in no measurable increase in sediment and that no mass failures will occur as a result of their activities. Since the project file is unavailable, it is impossible to review any of the assumptions that went into the model inputs and to determine if those assumptions are reasonable and accurate.

You have not done due diligence on your watershed cumulative effects analysis. First, you know that existing watershed conditions are not meeting Forest Plan standards and you have predicted that timber harvest will increase substantially in the East Fork drainage where you estimate that “that the ECA for this sub-watershed will easily exceed 20%” and “It is likely that the ECA will exceed 25%....” (Hydrology Report – ECA Discussion). Yet, you propose a great deal of additional harvest in the East Fork sub-drainage with this project, knowing full well that it will contribute to overall cumulative impacts. In the other HUC-12 drainages, you predict fewer cumulative impacts based largely on a Goggle Earth review. You suggest you have not conducted a cumulative effects analysis “Due to the lack of official or formal data for foreseeable actions on non-USFS lands, including road metrics and conditions”. Your response has largely indicated that it is too difficult to determine what has been happening on State and private land and therefore you have not conducted an appropriate analysis.

You have not included the impacts of cattle grazing or the removal of large expanses of forest canopy in your watershed and fisheries analysis. This is particularly disconcerting when one of

your project area streams (Ruby Creek) is considered impaired by IDEQ due to high levels of *E. coli* and all streams are considered impaired by IDEQ due to temperature. The extensive removal of forest canopy you propose will accelerate increases in stream temperature by increasing the rate of snow melt and solar insolation over much of the landscape.

Objection 4 – Connection of Roads 820313 and 4761

Alternative 2 includes a system road extension of Road 4761 and a tie through to existing temporary road 820313. This will create a cross-country connection from Ruby Creek to Little Boulder Campground. According to the FEIS Road 820313 is currently used as a trail for moving cattle from one pasture to another, but it is not driveable with a standard vehicle. Alternatives 2 proposes reconstruction of road 820313 to log haul standards and conversion to a system road. This will essentially result in new construction of this existing temporary road. The FEIS indicates that a small section (0.3 miles) of existing road 820313 (near Ruby Creek) will be placed in long-term intermittent storage under alternative 2, and that the remainder of the road will be closed with a gate.

The FEIS indicates that a passable trail will be provided along the section of the road to be placed into intermittent storage in order to allow livestock permittees to move their cattle along the road corridor. Based on the Forest's past success in maintaining road closures, which are documented in my DEIS comments, I am concerned that the livestock trail will create an "irresistible" trail opportunity for OHV riders to make a connection from Ruby Creek to Little Boulder Campground and compromise any proposed closure of the new system road.

I prefer an alternative that would completely obliterate Road 820313 now, and that does not conduct all of the timber harvest associated with this road. Such an alternative would be much better for protecting fish and wildlife habitat. Open road density is already very high in the project area and the removal of existing cover will reduce hiding cover for a variety of wildlife species. Less road construction and timber harvest will also reduce sedimentation risks to listed fish species.

Objection 5 – Construction of a new System Road to Units 33, 34, 36 and 37 and the connection several large harvest units into a massive harvest block in the same area

This ridgetop road is going to be very impactful to big game and other wildlife species and the closure of the road is going to be difficult to enforce because of a gate location that is inaccessible to Forest Service employees. Several roads in much more observable locations (documented in my DEIS comments) still remain open long after they were supposed to be closed on the Cabin Fever and Cherry Dinner timber sales.

This road will access a massive harvest block of several adjacent units (Little Boulder 19, 20, 32, 33, 33a, 33b, 34, 36, 36a and 37 - 706 acres) and is adjacent to two other recent regeneration harvest units (Cherry Dinner Units 22 and 30 - 218 acres). All that separates the units are

PACFISH buffers. Several stands recently commercially thinned on the Cherry Dinner project will be regenerated with the Little Boulder Proposal. Such stands hardly have had time to respond to the thinning operations that occurred less than ten years ago. The thinning cuts do not show up on 2009 imagery from Google Earth, but can readily be seen on 2013 imagery.

Objection 6 - Potlatch Canyon Trail and Little Boulder Campground

The Forest Service appears to have agreed that there are safety problems and problems with trash accumulation at the two gravel pits located near the Potlatch Canyon Trail and Little Boulder Campground. The FEIS claims that safety problems will be addressed as part of the new development that is expected to result from the Little Boulder project, but no solutions have been considered to prevent problems of trash accumulation or controlling the barrage of shooting activity that is occurring near the campground and trail.

The two gravel pits should not just be redesigned for safety considerations, but rather they should be closed entirely. The existing situation has become untenable and it is time to relocate the shooting activity to a more appropriate location that would be less impactful to people using these nearby recreational facilities. The current uses are incompatible and I believe the shooting is discouraging use of both the Little Boulder Campground and the Potlatch Canyon Trail. On a recent trip to the area, I heard a constant barrage of gunfire from these gravel pits pretty much all day long. Problems will only get worse if work on the Little Boulder project increases the available range length for shooters.

Problems are not going to be solved by a “head in the sand” response by the Forest Service. I believe it is time to improve the existing situation and to protect the Forest Service investments in these two recreational facilities. It is time for the Forest Service to work with the Latah County commissioners to figure out a better location for area shooters and phase out these two sites.

Objection 7 – Overconfidence that landslide risk can be avoided by sale layout

According to the FEIS, field review has already confirmed 21 acres of unstable landslide prone areas in several harvest units. Units 19, 20 and 33a contain the most high-risk areas based on these field reviews. A 5-factor landside risk analysis based on GIS data (McClelland et al. 1999) also suggested that 23 additional acres are located on unstable landslide prone high-risk areas. Five percent of previously identified unit 20 and two other units (30 and 36a) were shown to be composed of landslide prone high-risk areas based on GIS data. Several other units contain smaller percentages of high-risk areas based on field reviews and the five-factor analysis.

The FEIS suggests that field layout of units will reduce landslide risk since field verified high-risk areas will be excluded by no harvest buffers during unit layout and that landslide prone areas will be avoided during skid trail and road construction. The Forest Service claims such measures have been successful in preventing landslides in recent years. However, these measures have not been tested under flood conditions like those that occurred during the 1995-1996 flood events. Over 860 landslides occurred at that time across the Clearwater National Forest and six road

related landslides are known to have occurred in the project area either during or since the 1995-1996 flood event (FEIS Page 194). Thus, the risk of additional landslides is still very real especially when timber harvest road construction is proposed in areas that include the five factors identified by (McClelland et al. 1999).

Interestingly, three of these five high risk units (T19, T20 and T30) were previously included as old growth retention areas in the Cherry Dinner project. These units will be visible from the Potlatch River Canyon trail and they are located on the steep slopes above the main Potlatch River. A landslide failure here is likely to lead to a direct impact to Potlatch River. In my DEIS comments I suggested that perhaps one might want to reconsider how important timber harvest really is in these three units, given all of these factors. The Nez Perce/Clearwater NF has not backed off on any of these units.

Objection 8 - Vegetation Management Conclusions and the Purpose and Need Statements regarding Vegetation and Fuels

The purpose and need statements suggest that the current species composition is incorrect for the project area and that tree density is higher than what would have occurred historically. I believe that these conclusions are in error and that the Forest Service has incorrectly described historical conditions and the purpose and need for action in the project area.

In my DEIS comments, I suggested that it was inappropriate to use the work of Losensky (1994) as the basis of historical cover types and age class structure for the project area. Unfortunately, the thinking presented in the DEIS has been carried over into FEIS and this work is leading to erroneous conclusions regarding the urgency of more timber harvest in the project area.

Losensky's work is based on conditions at a much larger scale (Section M333D). According to the publication "The Section lies between the Lochsa River north to Coeur d'Alene Lake and from the Palouse Prairie to the Clark Fork River in Montana." Section M333D includes a multitude of forest habitat types (Cooper et al. 1991) in the two States that comprise this rather large area. Section M333D extends from the very low elevations on the edge of the Palouse Prairie to much higher elevations along the Bitterroot divide that separates Idaho and Montana. It is inappropriate to use findings from this large area as the basis of historical conditions in the relatively small Little Boulder project area.

Historically, the entire 12,425-acre project area could have easily burned in a stand replacement wildfire which were infrequent in Section M333D or the area could have avoided wildfire entirely. The idea that this small area would have achieved the structural stage distribution described by Losensky (1994) for Section M333D is not scientifically defensible. Except for the loss of white pine, it is very likely that historical conditions at any given point in time would have been very similar to what we see today for most of the project area. That is, a distribution of forest stands in similar age classes that would have moved through time until replaced by a large-scale wildfire, when the process would have started over again. Thus, the historical

structural stage condition in the project area likely varied from mostly young forest to mostly over-mature forest at any one point in time. Since most stands in the project area are about 90-100 years of age, the structural age class distribution is well within what would have occurred historically.

Observations by Losensky actually support the idea of infrequent stand replacement fires in Section M333D. Losensky's work relied primarily on inventories created in the 1930s which "could be back dated one or two age classes with a reasonably high degree of accuracy". His goal was to establish vegetation conditions "prior to the time that significant numbers of Euro-Americans settled the area." He supplemented this data with information from reports that were associated with the establishment the Forest Reserves that occurred around the 1890s and scattered reports that occurred after 1905 when the Forest Service was established. The FEIS suggests the historical condition in the project area was 44% early seral forest based on the work of Losensky (1994), but it does not acknowledge some of the limitations of his work which really only portray a single point in time for a relatively large area.

Interestingly, Losensky found that "the age structure of all the **(cover)** types was significantly different **(in M333D)** from the rest of the CRB for all types. They all had about twice as many acres of young stands when compared to averages for the CRB." He suggests the "young stands probably reflect the impact of the 1889 fire year in this Section." He also reported that "logging activity began on the Idaho portion of **(M333D)** in the 1860's in association of mining activity" **(Bold text added for clarification)**. Clearly, wildfire, logging and mining had an effect in Section M333D prior to the date of Losensky's work and this suggests that using his data as a rationalization for more logging today is problematic. This is especially true for a very small area like we see in the project proposal.

There are also problems on how the data in Table 56 from Losensky's 1994 report was combined for the FEIS Table 3.12.1. Losensky's Table 56 displays estimated structural stages for a variety of cover types that are found throughout Section M333D and it is not logical or scientifically defensible to combine that data as was done in the FEIS Table 3.12.1. The project area is composed of stands that occurred primarily in the white-pine cover type historically and some south facing slopes along the Potlatch River that likely supported Douglas fir or Douglas fir/Larch cover types historically. Cover types that contain spruce, subalpine fir or lodgepole pine are generally found at higher elevations within M333D and were of limited historical significance in the project area. Likewise, ponderosa pine cover types that Losensky suggests would occur at the western boundary of M333D or along the eastern boundary of the Clark Fork Valley were also limited in distribution in the project area. The inclusion of cover types that are not likely to occur in the project area in the structural stage averages presented in in Table 3.12.1 makes no sense, as these cover types generally don't occur here.

The use of Losensky's cover type data has also been misapplied. Although Losensky does discuss some of the tree species which occur in different cover types, he mostly reports on the

percentage of different cover types that make up various “Ecological Sections” such as Section M333D where the project area is located. The FEIS appears to have confused the idea of the cover type distribution across M333D with species components within individual stands in the project area. These two are not the same. FEIS Table 3.12.0 appears to have been constructed from cover type data from Losensky’s Table 55 where he describes the percent coverage of various cover types across Section M333D. For example, Table 55 suggests that the white pine cover type makes up 34% of M333D cover types and this figure is also displayed as the historical condition for the project area in Table 3.12.0. Similar numbers (21%) are presented for Ponderosa Pine

Other numbers presented in Table 3.12.0 do not correspond with Losensky’s data in Table 55. For example, it appears that numbers for lodgepole pine and spruce fir/subalpine fir have been switched in Table 3.12.0. Losensky indicated there was 9% lodgepole pine cover type in M333D and 11% spruce/subalpine fir cover type in M333D. Table 3.12.0 displays 11% lodgepole pine and 9% spruce/subalpine fir for the historical condition in the project area. Larch and Douglas-fir cover types are grouped in Losensky’s Table 55, but in table 3.12.0 the cover types are separated with no explanation. In Table 3.12.0, Douglas-fir is shown as 13% and Larch is shown as 10%. While Losensky’s data for Larch/Douglas fir is displayed as 19.8% and for Douglas-fir as 2.5% percent cover. It appears that Losensky’s data for Larch/Douglas-fir was split in half and added to data for stands that were displayed purely as Douglas-fir. Finally, there is a number in Table 3.12.0 that appears to have no relationship to anything suggested by Losensky. The Losensky data does not display anything for grand fir cover types, but Table 3.12.0 suggests the historical average for grand fir is 2%. It appears this number has been added, just to round out the percentages to 100%

This data is wrong in so many ways. As previously mentioned, it is inappropriate to utilize numbers from broad scale cover types in M333D and apply that data to a small project area. Second, it is very unlikely that high elevation cover types such as lodgepole pine and spruce/subalpine occurred in the project area historically. While these types would have been likely in portions of Section M333D near the Bitterroot divide they generally would not have been found in the low elevation project area. Similarly, the moist environments of the project area would not have supported pure ponderosa pine cover types, and most of the south slopes in the project were more likely to support Douglas-fir or Douglas-fir/Larch cover types as they currently do today. Losensky indicates this on page seven of his report in discussions about the Douglas-fir/Larch cover type “The type is typically on slightly drier sites than the white pine type and usually fewer species are present”.

Grand fir and cedar cover types are not reported in Losensky’s work for Section M333D. Losensky reports that western red cedar “types are found in the CRB but were in blocks too small to map at the landscape scale. Other types could also be found in this group but were not mapped by early investigators.” Presumably, stands with a high percentage of grand fir would have been included with the white pine cover type in most cases since stands with over 15%

white pine were classified as being in the white pine cover type in historical forest inventories (Losensky 1994). Pure grand fir stands were likely not reported by early investigators due to the lack of economic value. Reliance on Losensky's work to predict the historical amount of western red cedar or grand fir in the project area, is an unreliable source of data to establish these numbers. Such an analysis is bound to come to erroneous conclusions and calls for action that are overstated and move the area to inappropriate forest type conversions that are not ecologically sound.

I suggested in my DEIS comments that It would be more appropriate to use existing habitat types (Cooper et al. 1991) as the basis of your analysis. Habitat types are generally determined in forest stand examinations and successional pathways are outlined by Cooper et al. (1991) for each habitat type. Habitat types in the project area are most likely to be in cedar/queencup beadlily in all but some of the driest south facing slopes. These drier sites likely support grand fir/queencup beadlily habitat types.

According to Cooper et al. (1991), the major seral species in the cedar/queencup beadlily habitat type are Douglas fir, grand fir and western larch. They also indicate that white pine and ponderosa pine will do well in this habitat and that Western red cedar is the climax species.

In the grand fir/queencup beadlily habitat type they indicate that grand fir "in addition to being the climax dominant, is a major and most consistent dominate of seral stages, even following clearcutting or severe wildfire." They also indicate that Douglas fir is the only consistently important seral species in the grand fir/queencup beadlily habitat type.

Thus, the presence of Douglas fir, grand fir and western red cedar are the norm for the project area, and are not the result of fire suppression, historical logging or other factors as you have outlined in both the DEIS and FEIS. Based on the information from Cooper et al. (1991) your ideas that the project area is "inconsistent with historical and desired future conditions" in the purpose and need statement is just plain wrong. Forests in these habitat types 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. Green et al. (1992) report that the oldest trees, in the habitat group most appropriate for the project area (Type 4B), averaged 210 years with a range from 160 to 264 years. They report that "western red cedar may reach an age of 400-700 years".

In these habitat types intolerant species like western white pine and western larch have an initial advantage 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. In the 4A and 4B old growth descriptions, Green et al. (1992) report that "Ponderosa pine is a seral species on cedar and grand fir habitat types."

White pine and larch can remain on 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.

I cannot understand your prejudice against retaining existing western red cedar and grand fir stands, particularly since most of the project area is composed of cedar and grand fir habitat types. Why do you propose to convert stands with a high component of cedar and grand fir to white pine, larch and ponderosa pine when these species were likely limited of limited distribution (Ponderosa pine and larch) or as in the case of white pine subject to an introduced pathogen that has decimated the species?

Such wholesale conversions are very risky and make no sense from an ecological perspective. There is a good reason why 75% of project area is currently composed of grand fir and western red cedar. Both of these species find prime habitat in the project area and historically they always made up a significant component of the mixed species stands that are common in this Potential Vegetation Type. Contrary to your assertions in the purpose and need, their presence does not indicate a need for “restoration”. 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.

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. These are factors that the FEIS appears to dismiss as “unnatural conditions.” Understory fire would have also had some influence, but it is not a major driver like it is in ponderosa pine habitat types.

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. 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 (as you propose here) 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’t know how that pathogen might respond to climate change.

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 “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.” 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’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 applicable in the moist cedar habitat types that predominate in the project area. 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.

Objection 10 – Timber harvest and fuel treatments in existing old growth or previously designated old growth replacement stands

My comments on old growth management and harvest or fuel treatments in existing old growth stands and old growth recruitment stands that were designated on the Cherry Dinner project are well documented in my Little Boulder DEIS comments. In those comments I stated that I am concerned about timber harvest and fuel treatments in existing old growth or previously designated recruitment stands.

The FEIS claims that there are 281 acres of existing field verified old growth and 672 acres of “step down” old growth (Table 3.12.2) and 1,319 acres of potential replacement old growth in old-growth compartment 209. The FEIS describes “step down” old growth as “being within 20 years of old growth characteristics described in Green et al. 1992.” The FEIS claims old growth standards are being achieved because there will be no timber harvest of field verified or “step down” old growth

However, 148 acres of previously designated old growth replacement stands will be harvested (Timber harvest units T19, T20, T30 and T31). The FEIS claims this is being done because of insects and disease and that the stands will “never” achieve old growth status because of the lack of “desirable” species. Loss of some trees in these mature stands is exactly what needs to happen to move the stands towards old growth and the idea that old growth must include intolerant species is both judgmental and not appropriate for the habitat types in the project area. Under this strategy, no stand will ever be allowed to move toward old growth status.

Fuel treatments will be conducted in 48 acres of field-verified old growth, 120 acres of step-down old growth and 61 acres stands with old growth recruitment potential (Table 3.12.3). Fuel treatments will remove snags, downed logs, small trees and understory vegetation that are important old growth components and 85% of these treatments are expected to be accomplished with heavy equipment (Fisheries and Aquatic specialist report - Page 6). Such treatments will simplify the complexity of these natural stands as they progress towards the complexity that is usually associated with old growth. Heavy equipment operations will be particularly disruptive to old growth characteristics.

You state that you are concerned about larger trees dying in old growth stands, but this is the natural progression in most of project area stands. Tolerant western red cedar gradually replaces intolerant species such as white pine or western larch and shorter-lived species such as grand fir. Your proposed fuel treatments will short change that process and move stands toward your preconceived vision of old growth as a park like condition of large old trees which is only one component of old growth. It will not allow for the replacement of older trees with trees from the understory since you will be removing most of them. The snags, downed logs and understory vegetation that you will remove also play an important role in the diversity of old growth and these will be diminished in the sanitized stands that you will create with your proposed fuel treatments.

The Cherry Dinner project designated a large block of forest located along the Potlatch River to old growth management. The idea was to maintain a large continuous block of un-fragmented forest which could develop into old growth characteristics over time. Many of the stands in the block were not considered old growth, but they were considered the best option for old growth management in the area because most the existing stands were of mature size and located along the river corridor. Such stands not only provide important riparian habitat protection but they also were important for wintering big game and other species such as the bald eagle that would be attracted to the river corridor. For humans, the old growth replacement block along the Potlatch River Trail provided a pleasing esthetic background for hikers and prior to the recent barrage of shooting near the trail was one of the most popular on the Palouse Ranger District.

The Little Boulder project will begin to fragment this block by allowing regeneration harvest in stands that will be visible from the Potlatch Canyon Trail and by allowing fuel treatments in several locations within the retention area. Some fuel treatments will actually intersect with the Potlatch Canyon trail. The recommendations are largely being driven by the idea that existing grand fir, cedar and Douglas fir need to be replaced by intolerant species and that there is a high fire risk in the project area. Yes, there is some fire risk, there are some diseased trees and some fuel concentrations, but for the most part the stands are quite healthy and fuel loadings are not excessive. The area is highly roaded and in fact Road 1963 bounds most of the replacement block, there are multiple large existing clearcuts and agricultural areas surrounding the project

area on all sides and the real fire risk seems to be highly over-rated due to these factors. Please reconsider your proposal to harvest and conduct fuel treatments in field verified old growth, step-down old growth or previously designated old growth replacement stands.

Objection 11 – General wildlife concerns

My overall impression is that the Little Boulder project will have negative consequences to most wildlife species using the area. Alternative 2 includes 1,501 acres of timber harvest 1,183 acres of fuel treatments in a 12,425-acre area that already has had extensive timber harvest in the recent Cherry Dinner, Cabin Fever and other older projects. Surrounding private land and 2,057 acres of private land within in the project area have already been heavily impacted by timber harvest and agricultural activities. At least four regeneration harvest units exceed 100 acres and there are several others that exceed 40 acres. Most of these units have been consolidated into large blocks and the only separation between harvest units are PACFISH buffers. This has eliminated the idea of providing suitable hiding cover and thermal cover adjacent to harvest areas. Harvest and fuel treatments will remove snags, downed wood, shrubs, understory plants and important hiding cover.

Conclusions from the vegetation analysis that the project area is somehow out of balance with historical conditions abound in the conclusions of the wildlife analysis. In many cases the no action alternative is painted as a recipe for disaster that will cause catastrophic impact to wildlife habitat due to wildfire. The action alternatives are then painted as beneficial actions which will increase the amount of white pine, ponderosa pine and larch that are supposedly preferred by wildlife species utilizing the area.

Seven miles of new system (5.2 miles of new and 1.8 miles of non-system conversion) will be constructed along with 10.2 miles of new temporary road. This will occur in an area that already has over sixty miles of road and a road density of 3.1 miles per square mile. Even with decommissioning, these roads will provide travel corridors that may be accessed as user created routes. This has been observed on many past projects and several roads in the project area remain open long after the timber sale that was supposed to close them was completed.

I have identified several of these roads in my DEIS comments and am particularly concerned about Temporary Road 820313 which is being converted into a system road and being placed into long-term intermittent storage. It is proposed that the road will be allowed to remain open to non-motorized use in order to facilitate cattle moving operations, but I am concerned that the trail will create an “irresistible” trail opportunity for OHV riders to make a connection from Ruby Creek to Little Boulder Campground and compromise any proposed closure of the new system road.

Ridgetop roads are bound to be detrimental to big game and other wildlife species and the new system road to units 33, 34, 36 and 37 will displace big game and other wildlife species from that

area. Road closures on this road and others that originate from Potlatch Corporation roads on the eastern side of the project area are going to be particularly difficult to enforce since the gates that will control access will be several miles from a Forest system road and enforcement access will be limited. Potlatch permits four-wheeler use on their roads and the likelihood that these inaccessible gates will be breached is very high.

As evidenced by past success on the Cabin Fever and Cherry Dinner projects, several roads that were supposed to be closed remain open due to the lack of funding, inadequate closure devices, no signage and inadequate law enforcement. The FEIS appears to take the attitude that illegal activity is uncontrollable acknowledges that “unauthorized motorized recreation is likely to continue and degrade suitable habitats” (FEIS -Page 149) and “that illegal activity from motorized use is a problem in most areas in the National Forest” (FEIS – Page 343). With all of this illegal and uncontrolled access how can there be any serious conclusions regarding impacts to wildlife populations?

The wildlife also analysis makes several erroneous conclusions that are not supported by the best available science and fails to answer the “so what” question of what habitat losses associated with the project mean. Spatial requirements of territorial species have been considered better than most projects I have reviewed on the Nez Perce/Clearwater National Forest, but no thresholds of management activity have been set for most species. With the exception of summer habitat use by elk, the impact of high levels of motorized use has not been considered for any species. The examination of cumulative effects is also very weak for most species.

Schultz (2010) outlined most of these problems in a critique of Forest Service wildlife analysis. Schultz found that the Forest Service often relies on stand exam queries to determine acres of suitable habitat, but then makes no interpretation as to what that loss of habitat means to the species. Similar to what has been done on the Little Boulder project; they fail to set meaningful thresholds and assume that habitat losses are insignificant. Schultz (2010) concludes that “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.”

Schultz (2010) also examined the Sampson assessment (Sampson 2006a and 2006b) which is the mentioned in the discussion of several project area wildlife species. She states that the Sampson assessment “suffers from several problems, the most prominent being that the analysis is based on habitat availability, which alone is insufficient for understanding the status of populations (Noon et al. 2003, Mills 2007)”. Her recommendations generally call for more peer review of large-scale assessments and project level management guidelines. She suggests that we must adopt more robust scientifically sound monitoring and measurable objectives and thresholds if we are to be successful in meeting obligation of maintaining viable populations of all native and desirable non-native wildlife species. This has not been done on the Little Boulder project.

An interesting observation of the Sampson assessment is that it focuses on short term viability and long-term viability using what is called the 50/500 rule (Bessinger 2002). In fact, all six species considered in Sampson's analysis are all evaluated for short term viability using this "rule of thumb". Sampson did not evaluate long-term viability for the fisher and marten, but he did do if for the goshawk, pileated woodpecker, flammulated owl and black-backed woodpecker. Sampson concluded that "In regard to long-term viability, this conservation assessment has found that long-term habitat conditions in terms of Representativeness, Redundancy, and Resiliency are "low" for all species."

The Little Boulder wildlife analysis does not mention Sampson's long-term viability conclusions, and only focuses in on his short-term projections which are based on maintaining 50 individuals (25 male and 25 female). In his analysis, Sampson merely uses home range size for each species and makes assumptions of overlap in ranges of males and females. Home range size is then multiplied by the effective population size (n_e - a number that includes young and non-breeding individuals - Allendorf and Ryman 2002) and this is projected as the amount of habitat required to maintain a minimal viable population in the short-term. This simplistic approach ignores a multitude of factors and makes no assumptions about habitat loss or change over time. For the fisher and marten, Samson uses a "critical habitat threshold" as calculated in another publication (Smallwood 2002). Some of these numbers have been reported in the FEIS for the various species of concern.

There are several problems with such an approach and the risk to the species would be extremely high if any of the species ever reached these levels in the Northern Region. Surely, all six species would be listed as endangered if this was to occur and the probabilities for their continued existence would be very low. There is also no way that National Forest Management Act (NFMA) and Endangered Species Act (ESA) requirements could be met of maintaining species across their range and within individual National Forests with such an approach. Mills (2007) captured the futility of such approach in his book on Conservation of Wildlife Populations: "MVP is problematic for both philosophical and scientific reasons. Philosophically, it seems questionable to presume to manage for the minimum number of individuals that could persist on this planet. Scientifically, the problem is that we simply cannot correctly determine a single minimum number of individuals that will be viable for the long term, because of inherent uncertainty in nature and management....."

Sampson also admits that "Methods to estimate canopy closure, forest structure, and dominant forest type may differ among the studies referred to in this assessment and from those used by the Forest Service to estimate these habitat characteristics" and that "FIA sample points affected within the prior 10 years by either timber harvest or fire are excluded in the estimates of habitat for the four species" and finally that "FIA does not adequately sample rare habitats". This especially concerning given the reliance on the FIA queries to identify suitable habitat and the

fact that the data used in the analysis is now over 20 years old. Since the Sampson short-term viability analysis was completed, we have seen more wildfires and the level of timber harvest has increased on the Nez Perce – Clearwater National Forest. More sales are being planned at this time (Clear Creek, Lolo Insects and Disease, Center Johnson, Windy Shingle, Hungry Ridge, Tinker Bugs, Red Moose Divide, End of the World, Smith Ridge, White Pine, etc.) than at any other time in the past twenty years.

I therefore object to the use of the Sampson short-term viability analysis in the FEIS. The short-term viability analysis is scientifically unsound and it is very doubtful it could sustain scientific peer review. The analysis is clearly out of date and does not reflect recent increases in both logging and wildfire. Schultz (2010) captured this sentiment in her critique of the Sampson report: “some interviewees also thought the work should be peer reviewed, especially if it was conducted by USFS management, and several were skeptical that it would survive such review.” I agree with the reviewers.

The analysis assumes the project will not contribute to cumulative habitat losses at the Forest level, when the Nez Perce/Clearwater has no idea what the cumulative impact of numerous past and proposed projects are having on the species of concern. While I am encouraged to see that the Forest has included some project level monitoring for species like the goshawk in this project, I am concerned that it has been over 30 years since the current Forest Plan was signed, yet there is currently no statistically reliable monitoring information on the impacts of Forest Service activities on any wildlife species of concern. With the possible exception of elk (populations monitored by the Idaho Fish and Game) and the North Idaho Elk Guidelines (Servheen et al. 1997), there is no habitat proxy that is being used on the Forest that has any field verification. For example, it has not been confirmed that old growth standards are truly protecting old growth-related species like the fisher, goshawk, pine marten and pileated woodpecker.

The Forest Service is fond of the argument that viability cannot be discussed at the project level, but they then use habitat numbers outside of the project area to defend excessive development within the individual project area. They rationalize that sufficient habitat is available in other areas to make up for losses within the project area. Under this scenario, no project ever creates a significant impact and species are lost by “10,000 cuts” as project after project is allowed to proceed. The Forest Service cannot have it both ways; either they need to have project designs that create minimal impacts to species of concern, or they need to have monitoring information that confirms their habitat proxies are “providing for a diversity of plant and animal communities based on the suitability and capability of the specific land area” as required by the National Forest Management Act.

Objection 12 – Failure to evaluate habitat for the Black-backed woodpecker

In my DEIS comments, I asked why no analysis of black-backed woodpecker habitat had been completed for the project when there are mature stands and dead trees that could provide suitable habitat. While black-backed woodpeckers are known to respond positively to recent wildfires, populations are thought to persist at lower levels in unburnt mature and old growth stands. An unpublished report (Taylor and Schachtell 2002) by former Idaho Panhandle wildlife biologist Jenny Taylor found considerable use of unburned areas on the nearby Idaho Panhandle National Forest and black-backed woodpeckers have been documented using unburnt stands on the Palouse Ranger District in the past.

The FEIS (Page 349) includes the following statement which appears to contrast with the descriptions of proposed regeneration harvest units on FEIS page 28. The reason given for not evaluating black-backed woodpecker habitat on page 349 is: “Though foraging habitat (dead or dying trees) is present, it is very patchily distributed in the project area, and there is not a large contiguous outbreak or infestation to support a population influx. Also, although snags are present, there are not enough clustered snag areas to provide the densities required for nest sites.” In contrast the description of proposed regeneration harvest units on page 28 states “Stand exam data indicate that these units are experiencing declining site productivity due to overstocked stands and increased mortality from a prevalence of insect and disease issues”.

Regeneration harvest and fuel treatments are clearly going to impact snags and diseased trees and the impacts to black-backed woodpecker habitat should have been analyzed in the FEIS. When coupled with past actions (Cherry Dinner, Cabin Fever and nearby harvest on private land) there is a high probability that black-backed woodpecker habitat will be negatively impacted by the proposal.

Objection 13 - Conclusions that Alternative 2 will positively impact bald eagle habitat and that the No Action Alternative would negatively influence bald eagle habitat

There has been a change in the conclusions regarding the impact to bald eagle habitat of the various alternatives between the DEIS and the FEIS. In the DEIS it was purported that there would be “no impact” to bald eagle habitat with Alternative 1 (No Action). In the FEIS conclusions for Alternative 1 (No Action) suggest that: “The Project Area would continue to be susceptible to stand-replacing fires that could impact riparian areas and increase sediment loads into area streams, reducing habitat suitability for bald eagles. Existing sedimentation to area streams from unsurfaced roads would continue. No watershed improvement activities would take place, maintaining fish passage and sedimentation at their current levels.”

There is a similar “flip-flop” of conclusions regarding the action alternatives. In the DEIS it is stated that “Regeneration harvest could remove perch, roost, or nest sites if they occur in

treatment units. Project activities in Alternatives 2, 3, and 4 would disturb individual bald eagles and remove or reduce quality of perch, roost, or nest sites if they exist in harvest or fuels units. However, the riparian buffer design criteria should protect most primary foraging, perch, roost, or nest areas from activity impacts. Additionally, Project activities could result in injury or mortality of individual bald eagles. For instance, if there is an increase in ungulate road kill or carrion associated with log truck haul loads, bald eagles may forage in road ways, subjecting themselves to higher probability of vehicle collision.” In contrast the FEIS suggests: “The combination of riparian no- harvest buffers, road reconstruction and decommissioning and watershed improvements proposed in Alternatives 2, 3, and 4 **will** benefit bald eagles.”

I believe the DEIS conclusions are more accurate for this species. Alternative 1 will have no impact on the bald eagle and the idea that the action alternatives will reduce the risk of stand-replacing wildfires is unsupportable. Given the right conditions of hot weather, wind and drought the risk of wildfire will be pretty much be the same regardless of which alternative is selected. Drying of fuels associated with opening of forested stands may actually increase wildfire risk and logging and fuel treatment operations themselves could increase the possibility wildfire ignition. The recent Strychnine Creek Fire is a good example of how extensive logging did not actually prevent a wildfire on the District.

The idea that the action alternatives will improve habitat of the bald eagle is also suspect. The project will remove mature forests and snags (459 acres of regeneration harvest and 502 acres of fuel treatment) within ¼ of mile of fish bearing streams. Watershed improvements are unlikely to compensate for the construction of seven miles of new system road, ten miles of temporary road and 1500 acres of regeneration harvest and 1,183 acres of fuel treatment that are proposed. Particularly, when most watershed improvements have already occurred under the recent Cherry Dinner timber sale.

Objection 14 - Conclusion that the No Action Alternative would negatively influence bat habitat and that Alternative 2 would provide positive benefits

The FEIS evaluation of potential bat habitat takes a similar turn to what has occurred in the bald eagle evaluation. In the DEIS it is suggested that: “Alternative 1 would not contribute to direct or indirect effects, and there would also be no cumulative effects to habitat or populations of the bats.” While in the FEIS it is suggested that: “Insect infestations, disease, and inter-tree competition for light and water in densely stocked stands would continue. This would result in a decrease in the average snag diameter over the long-term due to early tree mortality and competition for resources. Alternative 1 would not create conditions where trees are released from competition, thus reducing potential large snag availability in the long-term. The Project Area would continue to be susceptible to stand-replacing fires that could impact riparian areas and remove critical forested habitat, reducing habitat suitability for bats.”

Both the DEIS and FEIS suggest that there will be a loss of snags in regeneration harvest units, but that the impacts of fuel treatments will be negligible. Thus, there is some acknowledgement of habitat loss in both the DEIS and FEIS, but these losses are generally discounted due to the fact that individual trees and PACFISH buffers will be retained. The DEIS makes the case that increases in the amount of forested edge may increase bat habitat quality, but in the FEIS it is stated as fact. Here is the DEIS language: “Increases in the amount of forested edge by 44 to 63 miles, may benefit bat foraging habitat. However, without monitoring, the quality or value of the edge increase is unknown.” In the FEIS there is no discussion about monitoring and the word “will” has been substituted for “may”: “Increasing forested edge habitat “will” increase foraging habitat for bats.”

The analysis for bats is just another example of how the conclusions of the vegetative analysis have crept into the entire FEIS including the wildlife report. The idea that snags would decrease in diameter as part of the process of forest succession does not make any sense. Yes, smaller trees are likely to be lost initially, but as the age and tree size increases in the stand the size of dead trees is expected to increase. Trees that die in the upper canopy are important to bats and these are more likely to occur in older stands rather than newly regenerated stands regardless of tree species. Lacki and Baker (2007) demonstrated that most roost snags for the fringed myotis extended above the existing canopy by an average of 33.8 feet and were larger than random snags (32.5 inches for roost trees and 20.8 inches for random snags). Random snags generally had heights that did not extend above the existing canopy (-8.2 feet). Roost trees occurred in stands with more trees per acre (239 vs 119 per acre) and higher basal areas of trees over 9.8 inches in diameter (125.5 ft²/acre vs 69.7 ft²/acre).

Working in three different study areas Lacki et al. (2010) found in Washington, important factors for roost tree selection by long-legged myotis were tree height, surface area of exfoliating bark, and if the tree had a broken top. Bats selected recently dead snags whose height extended above the general canopy. Intact snags were preferred over broken topped snags, since they were more likely to extend above the canopy. In Oregon, bats preferred areas with high snag basal area and a diversity of stands within 250 meters of the roost tree. Bats in Oregon also preferred trees without broken tops. In Idaho, bats preferred roost trees in stands with lessor amounts of edge and fewer stand types within 750 meters of the roost tree.

Most foraging by bats occurs over water where insect populations are higher. As shown by Lacki et al. (2010), Idaho bats preferred to roost in stands with less edge. It is the responsibility of the Forest Service to provide monitoring data or scientific information that an increase in forest edge would improve foraging conditions for bats as stated in the FEIS. I have previously discussed the erroneous conclusions regarding wildfire and the idea that the action alternatives will prevent wildfire and the loss of bat habitat, but that the no action alternative would lead to catastrophic effects. Bat habitat is not going to be preserved by implementation of Alternative 2.

Objection 15 – The fisher habitat analysis is disjointed and ignores concerns about the species

In my DEIS comments I raised concerns regarding the fisher habitat analysis and the description of the area that was utilized to conduct that analysis. The DEIS was very confusing as to the exact area being considered in the fisher habitat analysis. A map has now been added to the FEIS that displays the fisher analysis area. The map is very interesting because it only appears to display lands managed by the Forest Service and includes about half of the project area. Fishers do not know the difference between federal lands and lands in other ownerships and using an analysis area configured in the manner presented in the FEIS does not lend itself to a scientifically sound evaluation. There also does not appear to be a scientifically sound reason to exclude half of the project area as unsuitable habitat. Forested areas are contiguous throughout the project area and it is likely that the area provided historical habitat for the species.

In my DEIS comments, I agreed with the conclusions of the DEIS that: “Given the patchy arrangement of habitat on the District, population size is probably relatively low and individual home ranges relatively large” on the Palouse Ranger District. However, the DEIS and FEIS report that there are nine observations on the Palouse Ranger District and that three of those observations occurred within six miles of the project area. The area also supports low elevation cedar/grand fir habitat types preferred by this species (Sauder 2014, Sauder and Rachlow 2014). Thus, it is reasonable to assume that fishers could find habitat in the project area.

The FEIS suggests that 67% of the fisher analysis area (6,936 acres) is composed of mature forest and 14% is composed of forest openings (1494 acres). Sauder and Rachlow (2014) found that radio-tracked fishers had an average of 50% mature forest (greater than 82 feet tall) and less than 5% open areas in their home range. According to the Sauder and Rachlow publication (Figure 2) a landscape with 14% open area (Existing condition in the fisher analysis area) would have a relative probability of occupancy of around 20%. Moving the analysis area to 23% open habitat as the FEIS suggests would occur with the implementation of Alternative 2, would create a relative probability of occupancy of only a few percent.

If the actual project area were utilized or if impacts from private land were not excluded from the analysis it is hard to tell how the analysis would turnout. There is a potential that occupancy by fishers would actually be initially higher because many old growth and old growth replacement stands were excluded from the fisher analysis area. However, conditions could decline even more significantly since several additional stands would be scheduled for harvest and fuel treatment if the entire project area was used for the analysis. The project area (12,425 acres) is approximately the size of a female fisher home range, which was reported by Sauder and Rachlow (2014) as 12,182 acres. The fisher analysis area used in the FEIS is 10,737 acres, does

not include private land, has no logical geographic boundaries and excludes several proposed harvest units and fuel treatments.

The conclusion of the FEIS and the biological evaluation are that the “project may impact individual fisher or fisher habitat, but are not likely to result in a trend toward federal listing or reduced viability for the populations or species within the Project Area or range wide”. This conclusion seems highly subjective and self-serving given the fact that no comprehensive evaluation of fisher habitat has occurred on the Nez Perce/Clearwater National Forest using the latest scientific literature from publications like Sauder and Rachlow (2014) and the fact that even by your own poorly constructed analysis that the potential for occupancy by fishers will drop essentially to zero after implementation of the project.

Sauder (2014) suggested that “almost 80% of the predicted habitat for fishers in the Rocky Mountains of Idaho and Montana occurs on federally owned national forests, and we conclude that successful conservation of fishers in the Rocky Mountains of Idaho and Montana will rely heavily on policy and management decisions made on these landscapes.” He estimates that the Nez Perce/Clearwater National Forest contain approximately 22.7% of the probable habitat and 26.3% of the high-quality habitat for this species in Montana and Idaho. Most of this habitat occurs on low elevation areas like the project area and other locations that are considered the “front country” on the two National Forests. One of the most important conclusions of Sauder and Rachlow’s work was their conclusion that “wilderness and roadless areas alone are unlikely to provide sufficient habitat or population reserves to ensure persistence of fishers in Idaho and Montana.”

Similar conclusions to those presented in the Little Boulder timber sale have been brought forward on many other recent projects on the Nez Perce/Clearwater National Forest (French Larch, Lower Orogrande, Johnson Bar, Clear Creek, Dutch Oven, Windy Shingle, Center Johnson, etc.). There is also a myriad of other proposed projects in fisher habitat (Smith Ridge, White Pine, Tinker Bugs, End of the World, Hungry Ridge, Crane Point, etc.). Fisher habitat is clearly at risk as a result of the Little Boulder project and other proposals being brought forward on the Nez Perce Clearwater National Forests. Like Little Boulder Creek, most of these projects target the already heavily logged and roaded front country which provides prime fisher habitat on the Nez Pearce Clearwater National Forests.

Objection 16 – Incorrect use of the Reynolds et al. (1992) goshawk management recommendations and the latest scientific literature for evaluating goshawk habitat

In my DEIS comments, I suggested that the work of (Moser and Garton 2009) and Hayward and Escano (1989) be used to identify nesting habitat in the project area as these two publications were conducted in Idaho and are the best available scientific information on nesting habitat in this area. Moser and Garton (2009) reported that all goshawk nests examined in their study area were found in stands whose average DBH of overstory trees was over 12.2 inches and all nest

stands had $\geq 70\%$ overstory tree canopy. They described their findings as being similar to those described by Hayward and Escano (1989). Hayward and Escano reported that nesting habitat “may be described as mature to overmature conifer forest with a closed canopy (75-85% cover)....” Moser and Garton state “this classification corresponds with Reynolds et al. (1992) vegetation structural stages four to six”.

Unfortunately, the FEIS has utilized a more liberal interpretation of nesting habitat that only requires stands to be 10-inches in diameter with a crown closure of 40%. It is likely that this classification has overestimated the amount of available nesting habitat within the project area for goshawks and is not in agreement with the scientific literature.

Reynolds et al. (1992) suggest that at least 180 acres of suitable nesting habitat be maintained in each goshawk home range. They suggest this nesting habitat be maintained in uncut blocks of at least 30 acres in size and that at least three suitable nesting areas be maintained in each home range. This recommendation fits well with the findings of Moser and Garton (2009) who found that alternate nest sites will be used within the home range if the previous year’s nest site is lost for some reason. The FEIS suggests that the findings of Clough (2000) found that nesting areas in Montana averaged 40 acres in size and that regional recommendations now suggest retention of 240 acres of nesting habitat in uncut blocks of at least 40 acres. This seems like an appropriate change to the recommendations of Reynolds et al. (1992).

The FEIS also discusses the concept of the post-fledgling area described by Reynolds et al. (1992). This concept also appears to have misapplied in the analysis. Reynold et al. (1992) recommended maintaining 420-acre post-fledging areas of at least 60% older forests around the uncut nest stands. Moser and Garton (2009) suggested that this could be potentially reduced to 39%, but this will likely place greater risk on the species and I think the more conservative approach suggested by Reynolds is more appropriate for National Forest management.

The FEIS goshawk analysis appears to have made a mistake in consideration of the management of the post-fledgling area. Instead of maintaining 60% of the area in mature stands (or even 39% as recommended by Moser and Garton) the analysis only requires stands within the post-fledgling area meet a minimum definition of foraging habitat which is defined as stands with a minimum DBH of 10 inches and 10% crown closure in the FEIS.

This definition of foraging habitat does not meet the recommendations of Reynolds et al. (1992). They describe foraging areas as a “mosaic of vegetation interspersed throughout the foraging area”. They indicate “the majority (60%) of the foraging area should ultimately be in the three older age classes VSSs (4,5,6), approximately 20% in each”. In mixed species stands they suggest the VSS 6 stands have a minimum crown closure of 60%, VSS 5 stands have a minimum crown closure of 50% and one third of VSS 4 stands have a minimum crown closure of 60% and the remaining two-thirds of VSS-4 stands have a minimum crown closure of 40%. Reynolds et

al. (1992) classify VSS-6 as old forest exceeding 24 inches DBH, VSS-5 as mature forest 18-24 inches DBH and VSS-4 as mid-aged forest 12-18 inches DBH.

Finally, it appears that the analysis has utilized a circular 5000-acre home range concept in defining home ranges and this has caused overlapping areas between the four evaluated home ranges. With no map in either the FEIS or wildlife specialist report, it is hard to determine if the four circular home ranges cover the entire project area or if there are portions of the project area that aren't included in the analysis. Using topographic features to define potential home ranges of 5000 acres each, might be an easier way to do the analysis without having to discuss the overlapping habitat. This approach would be similar to what has been done with elk or lynx analysis units.

Objection 17 – The pileated woodpecker habitat analysis is not supported by the best available science and significantly underestimates suitable habitat and project level impacts

Once again, the pileated woodpecker analysis relies on dire predictions from the vegetation analysis that suggest the project area has significantly departed from historical conditions. Predictions of high fire risk and loss of habitat to insects and disease are associated with Alternative 1 (No Action) while action alternatives are projected to alleviate this risk. Similar to what has been done for other species in the wildlife analysis the FEIS makes the following unjustified statement in regard to the No Action Alternative: “The Project Area would continue to be susceptible to stand-replacing fires that could impact mature and old growth habitat and reduce canopy cover, thereby reducing habitat suitability for pileated woodpeckers.”

It is suggested that Alternative 1 (No Action) would be associated with, “large areas of dead trees from insect or disease outbreaks could create canopy openings, thereby reducing habitat suitability for pileated woodpeckers. Pileated woodpeckers would not be likely to utilize the area until more than 50% of a potential home range returned to > 60% canopy cover”. Even by your own omission (FEIS Page 349), this is currently not the situation in the project area and the likelihood of such an occurrence is very low for the young stands in the project area. On FEIS Page 349 you state: “Though foraging habitat (dead or dying trees) is present, it is very patchily distributed in the project area, and there is not a large contiguous outbreak or infestation”

Even if the unlikely condition you describe occurs, the literature does not support your contention that pileated woodpeckers would abandon the area. It is much more likely that your proposed regeneration harvest and fuel treatments would displace the species. Bull et al. (2007) found that “Although the spruce budworm and Douglas-fir bark beetle outbreaks that occurred in the study areas by early 1990s decreased forest canopy closure, abundance of grand fir forest types, and the density of large, live trees during the ensuing years, we did not observe any

decreases in pileated woodpecker densities except where extensive regeneration harvest occurred.”

The FEIS claims there is no pileated nesting habitat in the project area because the largest nesting patch is only six acres in size there are only a total of 455 acres potential habitat. While pileated woodpeckers do require individual snags greater than 20 inches DBH for nesting (Bull and Holthausen 1993, McClelland and McClelland 1999) they can successfully nest in mature stands that contain individual nesting snags of suitable size. They do not require that all trees within the nest stand to exceed 20 inches as you have apparently concluded in your evaluation of suitable nesting habitat.

The vegetation analysis suggests there are 561 acres (6% of 9,343 acres) in the warm moist vegetation type and perhaps another few acres (<1% of 940 acres) in the warm dry vegetation type with an average DBH over 21+ inches. The majority of these stands are likely are suitable for nesting and most of the 455 acres you identify as nesting habitat likely occur in these stands. There are also 2336 acres (25% of 9,343 acres) in warm moist vegetation type and 244 acres (26% of 940 acres) in the 15-19.9-inch DBH size class. Some portion of the stands in this smaller size class likely include individual snags/trees exceeding the 20-inch diameter size and are suitable for nesting. It should be relatively easy to identify these stands based on completed stand examinations or field examinations that you have done as part of your work on this proposal.

In my DEIS comments, I suggested that a more spatially explicit analysis of pileated woodpecker habitat. I suggested using an average home range size of approximately 1,005 acres (Bull et al. 1992) and basing the work on the recommendations of Bull and Holthausen (1993) and Bull et al. (2007). These publications were mentioned in the FEIS, but not utilized in the analysis due to the presumed lack of suitable nesting habitat. The response to my comment (FEIS Page 351) was that the “while the project area contains ample foraging habitat, it does not contain enough nesting habitat to support breeding pileated woodpeckers. Therefore, no breeding home ranges were analyzed for effects.”

Using the Bull publications would have given the Nez Perce/Clearwater National Forest a way of evaluating habitat potential and setting cumulative habitat thresholds where habitat loss becomes significant (Schultz 2010). Such an analysis would have been based on the latest scientific information and would display some concern for maintaining management indicator species within the project area. The fact that the Forest Plan includes no guidance on cumulative thresholds for terrestrial wildlife species, does not exclude the Forest Service’s responsibility to “provide for a diversity of plant and animal communities based on the suitability and capability of the specific land area” or negate the Forest’s obligation to utilize the best available science.

It is ironic that the FEIS (Page 351) uses the Samson (2006b) short-term viability analysis and the Bush and Lundberg 2008 habitat estimates as a way to show that pileated woodpeckers are being maintained at the Forest level and that the Little Boulder project will not contribute to cumulative impacts. This simplistic query of FIA data is not spatially explicit and relies on meaningless definition of pileated woodpecker habitat that is not supported by the available literature (Bull and Holthausen 1993, McClelland and McClelland 1999, Mellen et al. 1992). Nesting habitat is simply defined as a stand with one dead tree per acre over 15 inches DBH and foraging habitat is defined as a stand with one dead tree per acres over 9 inches DBH. This is not a defensible description of pileated woodpecker habitat and makes the analysis pretty much meaningless. There is no requirement for the snags to be part of a mature stand and 15-inch DBH snags are not suitable for nesting by this species. If methods used in the Sampson report had been utilized in the project area it is likely that most of the stands in the area would have been classified as nesting habitat.

Bull and Holthausen (1993) recommend that approximately 25% of the home range be old growth and 50% be mature forest. They suggested that 50% of the area should have stands with greater than 60% canopy closure and at least 40% should remain unlogged (any type of logging). Follow up work (Bull et al. 2007) found that bird density did not change in 30 years (despite major infestations of spruce budworm) in home ranges meeting these guidelines, unless extensive regeneration harvesting (like that proposed on the Little Boulder project) had occurred in the home range. They defined extensive regeneration harvest as 25% of the area. They also examined nesting success and found that birds that successfully produced young had on average 85% of their home range unlogged and less than 15% logged with any type of logging including fuel reductions. Whereas unsuccessful nesters had 62% of the home range unlogged and 38% logged (Bull et al. 2007).

There are 12,435 acres in the project area, but 2,057 acres are on private land and 95 acres are found within natural openings. Most of this private land has been recently logged (clearcut) or is composed of agricultural fields. There is recent timber harvest on USFS lands due to the past Cherry Dinner, Cabin Fever and other older projects. The FIES indicates that that 56% of the warm dry PVT (526 of 940 acres) and that 12% of the warm moist PVT (1,121 of 9,343 acres) are already in the shrub/seedling or 0-4.9" size class. In combination with the openings on private land and natural openings, that means the 12,435-acre project area already has approximately 3,799 acres of recent harvest or non-forested areas. This is approximately 30.5% of the project area. If just National Forest lands are considered there are 1,742 acres of recent harvest or natural opening which is approximately 16.8% of the national forest lands in the project area.

The Little Boulder project will add 1,501 acres of regeneration harvest, bringing the total percentage of recent harvest in the project area to 5,300 acres or 42.6% of the project area. If the

analysis is limited to National Forest lands the amount of recent harvest would be 3,243 acres or 31.3 % of the National Forest lands in the project area. Fuel treatments are proposed on another 1,183 acres (9.6% of the project area or 11.4% of the National Forest lands). While we do not know how individual potential home ranges would be impacted since no analysis has been completed, these levels of harvest and fuel treatment would not be consistent with recommendations from Bull and Holtausen (1993).

Clearly, the best available science does not support the contention that pileated woodpeckers will be unaffected by the Little Boulder proposal. Long-term studies (Bull et al. 2007) suggest that the pileated woodpecker is highly sensitive to regeneration harvest. Fuel treatments were also shown to negatively influence foraging habitat. “Stands with fuel reduction treatments at Starkey had significantly fewer logs, fewer logs with ants, and less pileated woodpecker foraging” (Bull et al. 2005). Please update your analysis to display the appropriate impacts to this species.

Objection 18 – The elk analysis relies on ineffective road closures and fails to consider the surrounding landscape in the analysis. I also have concerns regarding “optimistic” predictions in elk habitat model.

Elk habitat was calculated in the FEIS for two elk analysis areas and is displayed as meeting the minimal forest plan standards if road closures prove successful in stopping trespassing. However, the Forest Service does not have a good track record of maintaining existing road closures in the project area (See DEIS comments) and the likelihood that gate closures will be effective in stopping illegal use is low. Effective control of unauthorized motorized use is expected to be very difficult on roads originating on eastern side of the project area and along Road 820313.

Roads on the eastern project boundary originate from roads on Potlatch land that are closed to large vehicles but open to other motorized traffic. It will be difficult and time consuming to monitor these gates which will be located several miles from an existing open road and in an area visited infrequently by Forest Service employees. The gates that will close Road 820313 and its connection with Road 4761 will require constant monitoring to make sure that the closure is effective. The connection from Ruby Creek to Little Boulder campground is just going to be too attractive to motorized users and it is unlikely that the Forest Service will invest the necessary resources to assure that the closure is effective.

Many of the new roads and harvest units are proposed in ridgetop locations that provide important areas for elk movement, elk security and calving habitat. The potential to negatively impact elk habitat is high in these areas. The new road that accesses units T33, T34, T36 and T37 will be particularly impacting to elk as will the conversion of Temporary Road 820313 to a system road. These new roads and the large harvest units proposed along them will increase elk vulnerability and decrease overall use of these important ridgetop locations.

Despite the fact that the project will construct 5.2 miles of new road, convert 1.8 miles of non-system temporary road to a system road, reconstruct 9 miles of existing road and construct 10.2 miles of new temporary road and remove hiding cover along most of these roads, there are no deductions for roads in Alternative 2 in either of the analyzed elk units. According to the elk model when hiding cover along roads is removed or when road closure types are modified there is supposed to be a corresponding reduction in elk habitat effectiveness. For example, a secondary road closed with a gate is supposed to be 85% effective when there is hiding cover along it but only 73% effective when there is no hiding cover. Likewise, a road closed with an earthen barrier is supposed to be 95% effective when there is hiding cover and 91% effective when there is no hiding cover. It does not make any sense that there are no deductions in habitat quality related to roads as a result of implementation of Alternative 2.

Although it is mentioned in the FEIS that “the Project Area is predominantly surrounded by non-Forest land” and that “it is likely the relative value of cover and security in this area is high for elk” there is no evidence these conditions were considered in the FEIS habitat analysis. Since the area is surrounded by agricultural lands to the west and south and extensively harvested industrial forest lands to the east and north it is highly unlikely that elk are limited by forage availability. The situation is clearly evident in EIS Figure 3.13.2 (Page 236). As stated in the FEIS, it is likely that the project area provides security habitat for big game and that more consideration should have been given to maintaining this cover in the analysis.

Security habitat is listed as 7% in the Little Boulder EAU and 17% of the Ruby EAU in the FEIS and the FEIS suggests this did not change with Alternative 2. This is hard to believe will all of the new roads and harvest units on ridgetops that are currently inaccessible and likely to provide preferred security habitat for elk in the project area.

Given the surrounding landscape and the recent Cherry Dinner and Cabin Fever timber sales, the idea that more foraging habitat will improve conditions for elk as alluded to in the DEIS and FEIS doesn't make any sense. Many of the proposed units are very large and will not be accessible for use by elk and white-tailed deer. Several of the proposed units have been consolidated into large blocks that are only separated by PACFISH buffers. For example, there is a large block of approximately 924 acres (Little Boulder Units 19, 20, 33, 33a, 34, 36, 36a and 37 and Cherry Dinner Units 30 and 22) near the new ridgetop road that accesses these units. Just across an unnamed tributary of the Potlatch River from this grouping is another one which consolidates Units 13, 13a, 13b, 15 and 15a (275 acres). Fuel treatment unit F14 adjoins this area and also connects to another adjacent regeneration unit T07 (30 acres). Fuel treatments occur in most of the previous Cabin Fever regeneration harvest units and new regeneration harvest units in existing leave strips T25, T26 and T48 - 184 acres) will consolidate that area into another large harvested block.

The elk guidelines (Servheen et al. 1997) stress that in order to be fully utilized, openings need to be less than 500 feet from cover and be bordered on all sides by cover not less than 800 feet in

width. According to the guidelines “elk forage is present in openings and under forest canopies, and quantity is usually not a limiting factor on summer range.” By concentrating harvest in several areas and not leaving adequate adjacent cover adjacent areas, the proposed project proposes a significant threat to elk habitat. It is very difficult to understand how elk habitat potential can only drop 3% in the Little Boulder EAU and 1% in the Ruby Creek EAU in the “Potential Use Related to Other Factors” given the size of these consolidated blocks. Size and distribution of forage areas is one of three considerations that go into the “Other Factors” calculation along with size and distribution of hiding and thermal cover and adequacy of security areas.

In summary, foraging habitat is not a limiting factor for elk on the Palouse Ranger District, and the extensive management activity coupled with and the expanded road network that will result from implementation of Alternative 2 will only work to further deteriorate habitat conditions for elk in the project area. Please drop the new road to units T33, T34, T36 and T37 and the reconstruction of temporary road 820313. Harvest units along these roads and portions of other harvest units that are in excess of 500 feet of cover should also be dropped. Road 820313 should be obliterated instead of being converted into a system road.

Objection 19 - White-tailed Deer

The FEIS makes the erroneous conclusion that management recommendations recommended for elk will protect white-tailed deer habitat. White-tailed deer find prime habitat in the project area, and the location is a very popular area for hunting of this species. Deer are particularly attracted to the area because of the close proximity of the nearby Potlatch River to the south and east and agricultural areas to the west. Deer utilize areas along the river for wintering, where forest cover is important for snow interception (Pauley et al. 1993). In the spring deer are commonly seen using new growth in agricultural fields as a high value nutrition source following the long winter.

Most of the upper elevation areas proposed for harvest and fuel treatment serve as hiding cover and as a transitional zone to wintering areas along the river and agricultural lands to the west. Many of the proposed fuel treatments occur at lower elevations in wintering areas and likely will remove shrubs and small trees that deer depend on for winter survival. Like elk, deer do not appear to be limited by sources of forage production in the Little Boulder project area. Deer are generally more reluctant to stray far from cover than elk, and because of their smaller size they use more closed-canopied stands during winter. Snow interception is a critical factor for wintering deer when snow depths exceed 12-inches in depth (Pauley et al. 1993)

I am concerned that the project is going to have negative impacts on white-tailed deer by removing a great deal of hiding cover in an area that is already heavily impacted by past logging and road development. Several harvest units are very large and likely will not receive much use by deer because of the distance from cover that deer will be required to move in order to utilize

the central portions of these units. Fuel treatments and low elevation harvest units will remove understory forage and canopy cover that are important on winter range. The loss of cover in combination with heavy hunting pressure in this highly accessible area is likely to cause a decline in the white-tailed population.

Objection 20 – Lack of timely response in providing the wildlife, fisheries and watershed specialist reports and the BA/BE.

The announcement of the completion of the FEIS and Draft Record of Decision appeared in the Lewiston Morning Tribune on February 15, 2019. Within the announcement it was stated that the public would have 45 days to file an objection to the project. After a quick review of the FEIS, I realized that most of the pertinent information regarding the conclusions of the FEIS regarding wildlife, fisheries and watershed condition were found in the specialist reports and not in the FEIS. These reports were referenced in several FEIS locations and appeared to be critical to understanding the methodology and conclusions of the FEIS in regard to these resources.

On February 18th, I emailed NEPA coordinator Johanna Kovarik asking if the project file was available. On February 19th, Johanna informed me that the project file would not be available until after the end of the objection period but that I could request additional documents such as the specialist reports under the Freedom of Information Act. I immediately responded to Ms. Kovarik's email on February 19th and requested the wildlife, fisheries and watershed specialist reports along with the BA/BE.

After hearing nothing for several days I sent Ms. Kovarik another email on March 5th asking about the status of my request. I did not hear back from Ms. Kovarik, but on March 7th I got an email from Joslyn Osburn-Gaines suggesting my Freedom of Information Act request had been accepted and that the target date for getting the information to me would be March 19th. I did not receive the information by the 19th and sent another email asking about the status of my request on March 20th to Ms. Osburn-Gaines. I received a response from Ms. Osburn-Gaines that she had been out of town and on March 21st and received a link to the PDF files.

This only gave me 10 days to review the lengthy documents and formulate my objections prior to the end of the objection period. I was able to do this by the 27th of March, but had to work diligently to complete by objections prior to my departure on a previously scheduled personal trip. Similar personal commitments are likely for other members of the public and your unwillingness to provide documents in a timely manner makes it very difficult for the public to provide substantive comments to your proposals.

I can see no reason why I had to resort to a freedom of information request for these PDF documents and why it took 30 days for me to receive them via email. The documents are integral to the conclusions of the FEIS, and Ms. Kovarik should have emailed the PDF files a few days after I requested them. After receiving the reports, I realized that they still did not include all of the information that I would have liked, but by that time it was too late to request the additional

information. For example, I would have liked to examined the WEPP analysis calculations and the elk evaluation calculations. The entire project file should have been available at the beginning of the objection period.

Sincerely,

/s/ Harry R. Jageman

Harry R. Jageman

Literature Cited

- Allendorf, F. W., and N. Ryman. 2002. The role of genetics in population viability analysis. Pages 50-85 in Population viability analysis. S.R. Bessinger, and D.R. McCullough, editors. University of Chicago Press, Chicago, Illinois, USA.
- Beissinger, S. R. 2002. Population viability analysis: past, present and future. Pages 5-17 in Population Viability Analysis. S. R. Beissinger, and D. R. McCullough, editors. University of Chicago Press, Chicago, Illinois, USA.
- Bull, E.L., R.S. Holthausen, and M.G. Henjum. 1992. Roost trees used by Pileated Woodpeckers in northeastern Oregon. *Journal of Wildlife Management* 56: 786- 793.
- Bull, E. L., and R. S. Holthausen. 1993. Habitat use and management of pileated woodpeckers in northeastern Oregon. *Journal of Wildlife Management* 57: 335-345.
- Bull, E. L., A.A. Clark, and J. F. Shepherd. 2005. Short-term effects of fuel reduction on pileated woodpeckers in northeastern Oregon. *Northwest Nat.* 73: 42-45.
- Bull, E. L., N. Nielsen-Pincus, B.C. Wales, and J.L. Hayes. 2007. The influence of disturbance events on pileated woodpeckers in Northeastern Oregon. *Forest Ecology and Management* 243:320-329.
- Bush R., and Lundberg R. 2008. Wildlife habitat estimate updates for the Region One Conservation Assessment: Region One Vegetation Classification, Mapping, Inventory and Analysis Report 08-04 v1.0
- Cooper, S. V., K. E. Neiman, and D.W. Roberts. 1991. Forest habitat types of northern Idaho: a second approximation. U.S. Forest Service, Intermountain Research Station, General Technical Report INT-236.
- Clough, Lorraine T. 2000. Nesting Habitat Selection and Productivity of Northern Goshawks in WestCentral Montana
- Green, P., J. Joy, D. Sirucek, W. Hann, A. Zack, and B. Naumann. 1992. Old-growth forest types of the Northern Region. U.S. Forest Service, Northern Region R1, Missoula, MT.
- Haig, I.T. 1932. Second growth yield, stand and volume tables for the western white pine type. Technical Bulletin 323. United States Department of Agriculture, Washington, D.C.
- Hayward, G.D. and R.E. Escano. 1989. Goshawk nest-site characteristics in western Montana and northern Idaho. *Condor* 91:476-479.

- Lacki, M. J., and M. D. Baker. 2007. Day roosts of female fringed myotis (*Myotis thysanodes*) in xeric forests of the Pacific Northwest. *Journal of Mammalogy* 88:967-973
- Lacki, M. J., M. D. Baker, and J. Johnson. 2010. Geographic Variation in Roost-Site Selection of Long-Legged Myotis in the Pacific Northwest. *Journal of Wildlife Management* 74:1218-1228.
- Losensky, J. B. 1994. Historical Vegetation Types of the Interior Columbia River Basin. (108 pages)
- McClelland, B. R., and P. T. McClelland. 1999. Pileated woodpecker nest and roost trees in Montana: links with old growth and forest "health." *Wildlife Society Bulletin* 27: 846- 857.
- McClelland, D., R. Foltz, C. Falter, D. Wilson, T. Cundy, R. Schuster, J. Saurbier, C. Rabe, and R. Heinimann 1999. Relative Effects on a Low-Volume Road System of Landslides Resulting from Episodic Storms in Northern Idaho *Journal of the Transportation Board* 1652:235-243.
- Mellen, T. K., C. E. Meslow, and R. W. Mannan. 1992. Summertime home range and habitat use of pileated woodpeckers in Western Oregon. *Journal of Wildlife Management* 56: 96-103.
- Mills, L. S. 2007. Conservation of wildlife populations: demography, genetics and management. Blackwell Publishing, Malden, MA, USA
- Moser, B.W., and E.O. Garton. 2009. Short-term effects of timber harvest and weather on Northern Goshawk reproduction in northern Idaho. *J. Raptor Res.* 43, 1–10.
- Noon B. R., D. D. Murphy, S. R. Beissinger, M. L. Shaffer, and D. DellaSala. 2003. Conservation planning for U.S. national forests: conducting comprehensive biodiversity assessments. *BioScience* 53:1217– 1220
- Pauley, G. R., J.M. Peek and P. Zager. 1993. Predicting White-tailed deer habitat use in Northern Idaho. *Journal of Wildlife management* 57:904-913.
- Reynolds, R.T., R.T. Graham, M.H. Reiser, R.L. Bassett, P.L. Kennedy, D.A. Boyce, G. Goodwin, R. Smith, and E.L. Fisher. 1992. Management recommendations for the Northern Goshawk in the southwestern United States. USDA Forest Service General Technical Report RM-217, Fort Collins, CO U.S.A.
- Samson, F. B. 2006a. A Conservation assessment of the northern goshawk, blacked-backed woodpecker, flammulated owl, and pileated woodpecker in the Northern Region, USDA Forest Service. Unpublished report on file, Northern Region, Missoula, Montana, USA.

Samson, F. B. 2006b. Habitat estimates for maintaining viable populations of the northern goshawk, black-backed woodpecker, flammulated owl, pileated woodpecker, American marten and fisher. Unpublished report on file, Northern Region, Missoula, Montana, USA.

Sauder, J. D. 2014. Landscape ecology of fishers (*Pekania pennant*) in North-Central Idaho. PhD Dissertation, June 2014.

Sauder, J.D, and J.L. Rachlow. 2014. Both forest composition and configuration influence landscape scale habitat selection by fishers (*Pekania pennanti*) in mixed coniferous forests of the Northern Rocky Mountains. *Forest Ecology and Management*. 314:75-84.

Schultz, C. 2010. Challenges in connecting cumulative effects analysis to effective wildlife conservation planning. *BioScience* 60:545–551.

Servheen, G., S. Blair, D. Davis, M. Gratson, K. Leidenfrost, B. Stotts, J. White, and J. Bell. 1997. Interagency Guidelines for Evaluating and Managing Elk Habitats and Populations in Central Idaho. Wildlife Bulletin No. 11, Idaho Dept. of Fish and Game. 75p.

Smallwood, K. S. 2001. Scale domains of abundance amongst species of mammalian Carnivora. *Environmental Management* 26: 102-111.

Taylor, J., and E. Schachtell. 2002. Black-backed woodpecker habitat analysis of six Idaho Panhandle National Forest at two scales. Unpublished mimeo on file, Idaho Panhandle National Forests, Coeur d' Alene, Idaho, USA