February 16, 2024

1228 Ponderosa Drive

Moscow, Idaho 83843

Reviewing Officer

Northern Regional Office

26 Fort Missoula Road

Missoula, MT 59804

Subject: Sourdough Sheep Objection, Nez Perce-Clearwater NF

Dear Sir:

Attached are my objections on the proposed Sourdough Sheep project on the Nez Perce-Clearwater NF, North Fork Ranger District. The responsible official is Andrew Skowlund, North Fork District Ranger.

I am most concerned about the large size of the proposed units, the increased risk of new landsides and the lack of an access management plan for the area. Given the extensive amount of past timber harvest, I am also concerned about the loss of any remaining mature and old growth forest. While the project is relatively small in comparison to several other ongoing projects on the Nez Perce - Clearwater and many of the proposed units appear to have been previously logged, it still has the potential to contribute to loss of mature forests which is occurring across the Forest at an ever-increasing pace.

**Objection 1 – Large Harvest Unit Size**

Although the environmental assessment suggests there are ten harvest units, there are really only four units two of which are very large. Harvest Unit T8 is listed 187-acres, but it is very close to units T9 (35-acres) and T10 (23-acres). Making this complex approximately 245-acres. PACFISH buffers are all that separate these three units. Similarly, the complex of Units T14 (334-acres), T22 (101-acres), T24A (9-acres), T23 (91-acres) and T35 (9-acres) are also only separated by PACFISH buffers. Technically, the environmental assessment suggests that only three units (14, 22 and 24A) are connected (444-acres), but the small distance between these units and nearby T23 and T35 actually makes this complex this complex 544-acres. These five cuts also adjoin recent clearcuts on nearby State and private lands, making them at least another 100-150 acres larger than reported (Figure 1).

These super-sized cutting units are part of a disturbing trend on the Nez Perce-Clearwater NF where we are seeing larger and larger harvest units that far exceed the Regional Standard of 40-acres or less without approval from the Regional Forester. Similar practices have been documented by the Friends of the Clearwater across Region 1 (Friends of the Clearwater – 2021).

The Forest Service claims these large units are necessary because of “forest health concerns, operability, economic efficiency, and accessibility from the current road system” and that these large sizes are somewhat tied to the natural range of variability (NRV) which they suggest averages 160-acres with a range between 45 and 467-acres (Carroll 2022). The Carroll publication is a model simulation that uses a variety of model parameters to estimate what might of happened in the past, but very little historical data is available to actually confirm the conclusions of the model. I really question its findings and the necessity of creating openings of this size.

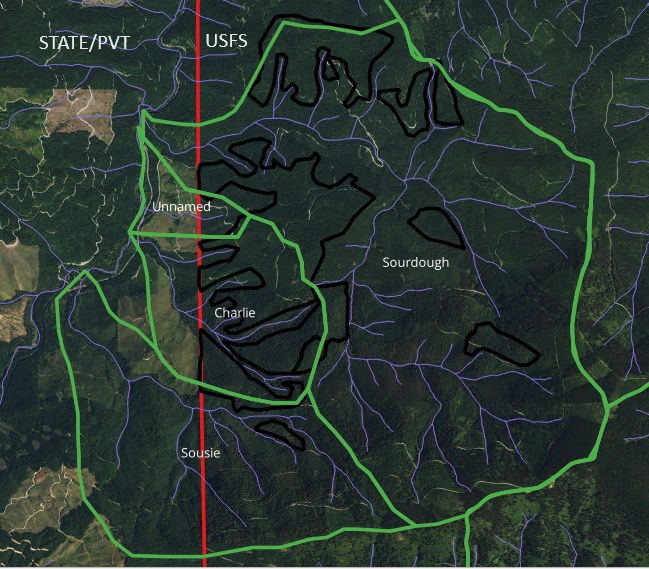
Most wildlife species can be expected to avoid these large open areas. For example,

numerous wildlife species such as the fisher and pine marten are known to avoid large openings (Sauder and Rachlow 2014, Hargis 1999). Big game (especially deer and elk) will generally not utilize the center of these large openings. 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. PACFISH buffers as proposed in this project generally do not provide sufficient intervening cover for most wildlife species.

The large units also pose problems for the small watersheds like Charlie Creek where over 70% of the drainage will be recently harvested if the project moves forward as planned. The large openings can significantly increase water yield and the risk of landslide events during rain on snow events. According to the watershed report, the project area “is prone to landslides: primarily caused by road-related failures but with some natural background slides occurring as well. Following the historic 1995/1996 floods, the analysis area experienced an average of 0.93

landslides/mi2 of land area”

**Figure 1 – Proposed harvest units and locations within project watersheds.**

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**Black – Sourdough Units Blue – Project Streams**

**Green – Project Watersheds Red – Property Boundary**

**Objection 2 - Water Quality and Fisheries**

The Forest Plan identifies a fishery standard of moderate fisheries for two streams in the project area (Beaver and Sourdough Creeks). The watershed and fisheries analysis suggest that Sourdough and Lower Beaver Creek currently exceed Forest Plan standards. This is understandable in the Beaver Creek drainage due to the fact that most of the drainage (82.7%) is composed of private and State land where it is impossible for the Forest Service to control the level and type of activity. Extensive logging and road construction has occurred in Beaver Creek drainage since most of the drainage was traded to Potlatch Corporation in the Beaver Creek Land Exchange several years ago. In contrast, Sourdough Creek is 98% national forest and in near complete control of the Forest Service.

The headwaters of two other small drainages that do not have a Forest Plan fisheries standard (Charlie and Sousie Creek) are controlled by the Forest Service. These streams both flow into Beaver Creek. All activities on the Sourdough Sheep project occur in either Sourdough Creek, Charlie Creek or Sousie Creek (Figure 1).

Sourdough Creek does not have as much recent logging as Beaver Creek, but it still has very high road densities estimated at 6.5-miles per square mile in the watershed report. There is also evidence of extensive logging in Sourdough Creek in the early 1980s (Goggle Photos 1986). Current sediment estimates are 186% of natural according to the watershed analysis. The existing equivalent clearcut acres (ECA) is 3.5% or 109-acres according to the watershed analysis. Instream data for cobble embeddedness was last collected in 1995 and was 62% in Sourdough Creek and 60% in Len Creek (An upper tributary of Sourdough Creek). There does not appear to have been any effort to update existing instream condition and current cobble embeddedness numbers.

Reviewing the harvest units within each drainage, I have estimated there are approximately 516-acres of regeneration harvest are proposed in the 3,106-acre Sourdough Creek watershed and that most of this harvest occurs in the lower reaches of the watershed in areas that support a fishery. This is approximately 16.6% of the watershed. When coupled with the current ECA of 3.5%, I would expect that the ECA after project implementation should be around 20%. According to the watershed report the 20% threshold is a warning level of deleterious effects to streamflow (Gerhardt, 2000). The watershed report suggests that harvest activities would increase ECA by 11.1% and move the existing condition to an ECA of 14.6%.

Of most concern is the level of activity in the small Charlie Creek drainage. This small drainage is only 600-acres in size and most of the acreage within the drainage on State and private lands has already been recently harvested. I have estimated that there are 317-acres of proposed harvest in this drainage and there is at least another 100-acres of existing recent harvest on State and Private land. Following the Sourdough Sheep project almost 70% of the drainage will be harvested. The level of harvest in Sousie Creek is minimal and of less concern than in Charlie Creek or the lower reaches of Sourdough Creek.

The sedimentation analysis if very difficult to understand. The analysis suggests the natural rate of sedimentation is 0.0312 tons/acre/year and that the existing condition of sedimentation in the Sourdough watershed is 0.0891 tons/acre/year or 186% of natural. The Forest Plan standard for the stream is 150% of natural. Proposed harvest activities are predicted to produce 0.12 tons/acre/year and road activities are predicted to produce 0.0545 tons/acre during project implementation. This should bring sedimentation levels to 0.2636 tons/acre/year or 845% of natural in Sourdough Creek during project implementation. This is well over Forest Plan standard of 150% of natural.

This figure is not reported in the watershed analysis. Rather it is suggested that after timber harvest is completed and the drainage has recovered (time frame unspecified) sedimentation levels will fall to 0.793 tons/acre/year (154% of natural) in Sourdough Creek as a result of the project upgrades to the existing road network. The analysis suggests this recovery meets the requirement for no net increase in measurable sedimentation in Sourdough Creek because sedimentation levels will be lower than the existing condition once recovery has been achieved. Again, this is very difficult to know without updated instream data.

Sedimentation is known to be greatest in the first few years following activities such as logging and road construction. Once sedimentation reaches the stream it must be cycled through the system and this can lead to build ups of fine material in the stream channel. Increases in cobble embeddedness (mentioned in the fisheries report) are the ultimate negative consequence of sedimentation that reaches the stream channel. Unfortunately, the Nez Perce-Clearwater has not reported and updated information on the instream condition of Sourdough Creek since 1995, making it difficult to predict how any new sediment might impact the stream.

Both Disturbed WEPP and GRAIP (methods used in the watershed analysis) predict levels of sedimentation that actually reach the stream course. With 842-acres of timber harvest using ground-based systems, 27.8 miles of existing road being opened to accommodate logging and 12-miles of new temporary road being constructed it just doesn’t make any sense that there will be no increase in measurable sediment during project implementation. This is particularly true, given the large size of the proposed units and the relationship to small drainages like Charlie Creek.

Landside risk is significantly increased in these small drainages when high percentages of the drainage are harvested at one time. Landslide risk is not incorporated into WEPP or GRAIP and such events are known to be major contributors of stream sedimentation. Project implementation or shortly thereafter (when harvested tree roots start to deteriorate) are the time frame when stream sedimentation is most likely and conditions that will occur during this timeframe should have been reported more clearly in the watershed and fishery reports. Even if the rate of new sedimentation recovers at a later time, any sedimentation produced during the project or by newly created landslides will still be in the stream until it can be routed away. The watershed analysis and fisheries reports have not demonstrated that there will be no measurable increase in sedimentation as currently outlined in the Forest Plan Settlement Agreement.

**Objection 3 – General Wildlife Concerns**

The Nez Perce – Clearwater NF needs to place more focus on the loss of the remaining old growth and mature forests and to do a better job of dealing with human access and its impact on fish and wildlife. I am particularly concerned about the loss of mature and old growth forest in the roaded front on a Forest wide basis and the lack of emphasis of access management across the Forest. The roaded front contains some of the most productive sites on the Forest and are preferred habitat for species like the fisher, goshawk, pileated woodpecker and pine marten which are associated larger trees, old growth and mature forests. Lack of a good access management plan and poor enforcement of existing access management restrictions is placing unnecessary risk on several species. Populations of listed species like the wolverine and grizzly bear may never recover on the Nez Perce – Clearwater without more emphasis on access management and open road density. Human activities and unrestricted motorized access can displace animals from preferred habitats, lead to reduced reproduction and result in increased vulnerability from both legal and illegal activity. The idea that access management is claimed to be beyond the scope of this project is reprehensible.

**Objection 4- Continued Use of the Outdated Sampson Viability Analysis**

The Nez Perce – Clearwater National Forest continues to utilize the outdated Sampson 2006a and 2006b viability analysis for defending the impacts they are having on six wildlife species that are commonly evaluated on most Forest Service projects in the Northern Region. This analysis is outdated and contained substantial errors when it was written.

As early as 2010, Schultz (2010) examined the Sampson viability assessments. 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 Sourdough Sheep project.

The Sampson assessment 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 Sourdough Sheep wildlife analysis does not mention Sampson’s long-term viability conclusions, and only focuses 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 (ne - 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 Sourdough Sheep EA 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 is 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 27-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 (Limber Elk, French Larch, Lower Orogrande, Johnson Bar, Clear Creek, Little Boulder, Dutch Oven, Windy Shingle, Center Johnson, Tinker Bugs, Crane Point, Gold Hill, End of the World, Hungry Ridge, White Pine, Dead Laundry, Red Seigel, Green Horse, Lolo Insects and Disease, Stray Creek, Longleaf, Pete King Creek, East Saddle, Red Moose Divide, Sand Mountain Fire Salvage, Johnson Creek Fire Salvage, Owl Fire Salvage, Barnyard South Sheep, Big Burn, Deadwood, Sing Lee 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 EA. 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 5 – Fisher Habitat Analysis**

The Nez Clearwater analysis of fisher habitat is centered on Sourdough Creek and Lower Beaver Creek. While the 3,106-acre Sourdough Creek watershed is 98% national Forest, most (80.8%) of the 10,967-acre Lower Beaver Creek watershed is composed of State and private land located to the west of the project area. Using these analysis areas, the Nez Perce-Clearwater Forest made the following conclusion: “with the industrial timberlands in the HUC14s, suitable habitat with moderate or high probability of occupancy would never be likely”.

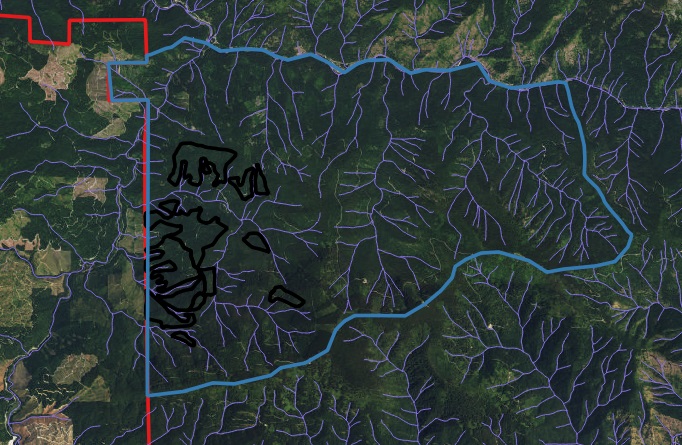
While I agree that, the industrial areas to the west are unlikely to support high quality fisher habitat, I believe that the Nez Perce- Clearwater should have focused their analysis on National Forest lands either to east or south of the project area. The forested conditions in those areas are much more likely to support fishers and maintaining their condition is important to offset the losses of habitat that is occurring on State and private lands to the west. Dismissing impacts to the fisher because of the inclusion of State and private lands is not an appropriate evaluation of the impact of national forest activities on this species.

The home range of a female fisher is approximately 12,200-acres (Sauder and Rachlow 2014) and since the project area is only 4,732-acres it is incapable of supporting a female fisher territory. The analysis area needs to be enlarged so that the recommendations of Sauder and Rachlow (2014) can be considered. This analysis needs to occur on National Forest lands either to the east or south of the project area since that is where the Nez Perce – Clearwater National Forest has oversight of proposed activities. Figure 2, (12,637-acres) is an example of a more appropriate evaluation area.

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 their work of the arrangement of habitat is very important and they suggest that fishers select home ranges that have forests “arranged in connected, complex shapes with few isolated patches, and open areas comprising <5%...” Concentrated areas of timber harvest like those proposed on this project can significantly influence an individual fisher home range.

Right now, we have no idea on the amount of existing opening and mature forest in any potential analysis aera. We do know that the 842-acres of proposed regeneration harvest will create 6-7% open area in any national forest analysis area and that these openings will not be arranged in connected, and complex shapes with few isolated patches. We also know that due to extensive historical logging, it is unlikely that 50% mature forest is likely to be found on national forest lands within and nearby to the project area. The Nez Perce – Clearwater National Forest needs to redo the fisher analysis to more appropriately consider the impact of past and proposed activities under their control.

**Figure 2 – Possible Fisher Analysis Area (12,637-acres)**



**Thin Blue Lines - Streams Red – National Forest Boundary**

**Thick Blue Line – Potential Analysis Area Black – Sourdough Sheep Units**

**Objection 6 - Goshawk**

In the goshawk analysis, it is reported that no old growth or stepdown old growth (USDA Forest Service 2006) will be harvested as a result of the proposed project. The goshawk analysis also describes methods that were utilized to evaluate impacts to goshawk habitat. A map is included of potential habitat along with the location of two nearby known nests and a few observations of goshawks in the project area. No known nests were reported to occur in the project area and it was assumed that nearby nesting territories would not extend into the project area due to the distance from the existing known nest locations.

Moser (2007) reported that, goshawk home range size was largely related to nesting success and the amount of opening and mature forest within the home range. Birds of both sexes with successful nests generally had smaller home ranges. For example, males with successful nests (N=4) had an average home range size of 9,657 acres and females with successful nests (N=8) had an average home range size of 6,600 acres. Male bird home range size increased as the number of openings in the home range increased and the amount of closed canopy forest decreased, but these factors weren’t significant for female birds. Studies in other areas have reported smaller home range sizes in the neighborhood of 5,000-6,000 acres (Reynolds et al. 1992).

Thus the 4732-acre project area is slightly smaller than the normal home range of a female goshawk in Northern Idaho. The goshawk analysis uses methods described by Reynolds et al. (1992) and Clough (2000) are appropriate tools for evaluating impacts to this species, but have not been utilized for this project.

According to the Nez Perce – Clearwater wildlife analysis there are 578-acres of nesting habitat in the project area and 41-acres would be harvested by the proposal. Nesting habitat is defined as stands with an average DBH of 15 inches or greater and 75% or greater crown closure. Foraging habitat is estimated at 2509-acres and it is estimated 285-arces would be harvested by the proposal. Foraging habitat is defined as stands with an average DBH of 10-inches DBH and a crown closure of 25% or more.

These numbers do not appear to correspond to figures in the vegetative report. According to the vegetation report 22% of the project area (1,041-acres) exceed an average diameter of 20+ inches and 15% of the project area (710-acres) has an average diameter between 15-19.9-inches DBH. Looking at current aerial photography of the project area, most existing stands appear to have sufficient canopy closure to support goshawk nesting. Thus, the vegetation report numbers suggest there are possibly 1,750 acres of possible goshawk nesting habitat. According to the vegetative report these stands over 20+ inches will be reduced to 21% of the project area and stands between 15-19.9 inches will be reduced to 13% of the project area. This would be a loss of approximately 142-acres of potential nesting habitat.

The vegetation report does not separate stands between 5-9.9-inches DBH from stands between 10-14.9 inches DBH and suggests 52% of the existing stands (2,461-acres) in the project area are between 5-14.9 inches DBH. It is estimated that these stands will be reduced by 16% or 757-acres.

In summary, I agree that goshawks will likely avoid the 842-acre area where activities are proposed because of the expected concentration of activity. This loss of habitat is relatively small in comparison to the amount of habitat on the Nez Perce - Clearwater, but these losses are not occurring in isolation. At least three other sales (Smith Ridge, Barnyard South Sheep and Owl Salvage) are located a short distance from the project area. Across the Forest there are a myriad of other sales causing similar losses of goshawk habitat such as: Limber Elk, French Larch, Lower Orogrande, Johnson Bar, Clear Creek, Little Boulder, Dutch Oven, Windy Shingle, Center Johnson, Tinker Bugs, Crane Point, Gold Hill, End of the World, Hungry Ridge, White Pine, Dead Laundry, Red Seigel, Green Horse, Lolo Creek, Stray Creek, Longleaf, Pete King Creek, East Saddle, Red Moose Divide, Sand Mountain Fire Salvage, Johnson Creek Fire Salvage, Big Burn, Deadwood, Sing Lee, etc. The Clearwater needs to do a better job of displaying potential impacts on individual projects, insuring agreement between different analyses and considering the cumulative impacts of all of their proposed projects.

**Objection 7 - Pileated Woodpecker**

While it is mentioned in the wildlife report that the average home range size of pileated woodpeckers is approximately 1,005 acres (Bull et al. 1992) and that methods of determining home range suitability are available in publications by Bull and Holthausen (1993) and Bull et al. (2007). These publications are not utilized in the pileated woodpecker analysis. 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 wildlife report asserts there are only two suitable potential home ranges in the 4,732-acre project area due to the “distribution of tree size class and overstory”, but these potential home ranges are not displayed in the project file. It appears that determination of suitable territories is based on the amount of nesting and foraging habitat in the project area that was determined from Vmap and stand exam queries. There is a map of potential nesting and foraging habitat in the project file, but the display indicates a scattered distribution of nesting and foraging habitat across the entire project area. It does not appear that pileated woodpecker would be confined to two home ranges.

The wildlife report suggests there are 1055-acres of nesting habitat (Defined as stands with an average DBH of 20+ inches and over 60% crown closure in a variety of species groups) and 2,501-acres of foraging habitat (Defined as stands with an average DBH of 10+ inches and 25% crown closure in the same species groups). Nesting habitat is considered a subset of foraging habitat according to the wildlife report. Thus, the determination of two nesting territories appears to be related to the query result of 2,501-acres of foraging habitat in the project.

Review of arial photography and the map of pileated woodpecker habitat, does not suggest a skewed distribution of older stands suitable for nesting and foraging. It appears more likely that nesting and foraging habitat is more evenly distributed across the landscape. The wildlife report suggests that 75-acres of nesting habitat and 285-acres of foraging habitat will be removed and since that removal will retain over 2000-acres of foraging habitat in the project area there will still be two suitable territories. Thus, there is a projection that there is only minimal change to the existing situation.

This logic makes very little sense to me. I suspect there are currently 3 or 4 suitable home ranges in the project area, and the concentrated cutting of 842-acres of regeneration harvest is going to remove at least one suitable home range where pileated woodpecker use will be unlikely for the next several decades. While the loss of one home range may seem insignificant, the cumulative impact of large cutting units and the extensive level of timber harvest that is occurring on the Nez Perce – Clearwater NF really has the potential to place species using older forests at a real risk. Similar cutting on numerous other projects across the Forest has resulted in the loss of numerous pileated woodpecker territories.

**Objection 8 - Pine Marten**

The analysis of marten habitat is similar to those of other species that utilize older forests. A database query is used to define habitat. This query includes stands between 3300 and 5900 feet in elevation, stands with an average DBH of 10-inches and a crown closure that exceeds 40%. Various forest species such as Douglas fir, grand fir, lodgepole pine, subalpine fir, Englemann spruce, and western red cedar are query. From this query it was estimated there are 1036-acres of marten habitat in the project area and that 29-acres of marten habitat will be impacted by the proposal. No map of potential habitat is provided and there is no attempt to evaluate potential habitat at the home range scale. Bull and Heater (2001) who found that female home ranges averaged 3,500 acres in nearby Northeastern Oregon and martens are known to be displaced from landscapes with over 25% open habitat (Hargis et al. 1999).

With over 842-acres of timber harvest in a 4,732-acre project area, it is really difficult to understand how only 29-acres of marten habitat will be impacted. In my comments on the project, I asked for a display suitable marten habitat, but this does not appear to have been accomplished in the final EA.

**Objection 9 – There are significant errors in the Nez Perce – Clearwater Elk Analysis**

The Nez Perce – Clearwater analysis for elk and other big game species recognizes that the large cutting units are not desirable for big game and that new temporary and upgraded system roads will increase the vulnerability of big game to hunting and illegal poaching. However, there appear to be two major errors in the elk analysis. First it appears that the District Biologist mis-read Figure 2 from the elk model guidelines and that she significantly underestimated the impact roads in her model calculations. Second, there is no accounting for the impact of user created OHV trails, compromised road closures and temporary roads in her analysis. The number and location of user created trails and compromised closed roads needs to be considered if impacts in the model are to be truly reflective of actual on the ground conditions. There should also be an accounting for the construction of new temporary roads which provide more avenues for the creation of user created motorized routes.

For her analysis the District Biologist calculated that the standard road density was 2.8-miles per square mile, and concluded that potential elk use related to roads was 60%. This number is in error and reference to Figure 2 from the elk model suggests the number should have actually been 40%. Using the same 70% reduction for other factors that is presented in the wildlife report the existing condition should have actually been 28% not 42%,

Likewise, the standard road density as a result of the project was predicted to be 3.2-miles per square mile, largely due to the new openings that would be created adjacent to existing system roads. No habitat deductions were included for any of the new temporary roads that are part of the proposed action. According, to Figure 2 in the elk model a road density of 3.2 miles per square mile should have been 37% potential for elk use related to roads not 61%. In her consideration of other factors, the District Biologist took no deduction for the size and distribution of cover and suggested that forage distribution would improve from -10% to -7%. She maintained security habitat would remain at -20%. Using the District Biologist’s numbers for other factors (73%) would reduce overall elk habitat potential to 27% of potential which is very close to the standard of 25%.

The above analysis only corrects the District Biologist’s error in her misread of Figure 2 in the elk guidelines. It does not account for the impact of new temporary roads and the impact of existing user created OHV trails. It is very likely the unauthorized use of the new temporary roads will occur following the completion of logging since it is already occurring in the area. Temporary roads will also be open during the life of the project. Overgrown system roads will also be reopened creating more potential for unauthorized use. The existing analysis also gives no emphasis to the size and distribution of cover, despite the concentration of several new very large size harvest units with no intervening cover and excessively large units that are unlikely to be fully utilized by big game.

In my original comments I suggested that given the high level of activity on nearby State and private lands, the Nez Perce – Clearwater needs to consider an alternative with smaller harvest units and more intervening cover between units. I suggested that road closures should also be considered on system roads that do not provide primary access and whose main purpose is to facilitate logging. The Nez Perce National Forest concluded that smaller units would not meet their goals of reducing root disease and that access management is a forest-wide issue that is beyond the scope of the project.

The Forest Plan includes the protection of fish and wildlife habitat and the effects of proposed activities on other resources needs to be evaluated. Habitat alteration and access management are critical components in the protection of the fish and wildlife species that are found on the Nez Perce-Clearwater National Forest and these components have been traditionally addressed in project planning. Historically the development of alternatives for habitat management and access management have been considered as part of project planning. Forest level planning can not be expected to get down to the level of planning for individual road closures.

The project will create significant changes to the current transportation system and it is very likely that unauthorized routes will put the area below the minimum standard for elk habitat effectiveness. An evaluation of access management is not beyond the scope of the project proposal, especially when we know there are several unauthorized OHV trails within the project area (Watershed Report Page 5).

The focus of the Forest-wide Clearwater Forest Service Travel Plan did not place much emphasis of site-specific road closures and adopted most of the existing recommendations from past project level decisions for existing roads. Off road travel and motorized use of trails in roadless areas were the primary focus of the Forest-wide Clearwater Travel Plan. The complexity of travel management on Forest-wide basis only allows for generalized concepts of access management much like the Forest Plan. There is still a place for access management review at the project level and this should have been done on the Sourdough-Sheep project. If there is unauthorized use occurring in the project area, the interdisciplinary team should be working to find out when and where that unauthorized use is occurring and taking measures to correct that activity so that the objectives of the Forest Plan can be realized.

**Objection 10 - Detrimental Soil Impacts**

In my scoping comments I noted that the soils effects analysis suggests that ground-based logging is anticipated for the entire project area. In that report it is suggested that there will be detrimental soil impacts (DSI) that exceed the regional standard of 15% in Units T8 (187 acres) and T10 (23 acres). Both of these units are predicted to go to from 6% to 17%. Two other units (T18 and T24A) are predicted to have DSI of 15%, which would be up from a DSI of 4% and 2% respectively. In my scoping comments I suggested that harvest units should be designed so that DSI levels do not exceed the regional standard, instead of mitigating the detrimental impacts after timber harvest is completed. I suggested that ground-based harvest prescriptions should be modified to less impactive methods to allow for reduced DSI below the regional standard, but no action appears to have occurred and there is no response to this comment. The final soils report reflects the exact same numbers as the preliminary report, with a plan to mitigate new impacts by road and skid trail decompaction.

**Objection 11 = Landslide Risk**

The soils report suggests that roads and units have been designed to avoid high risk landtypes and landtype 50 (old slumps). In the past, landslides have been common in and around the project area. For example, the watershed report (Page 9) indicates “The area is prone to landslides: primarily caused by road-related failures but with some natural background slides occurring as well. Following the historic 1995/1996 floods, the analysis area experienced an average of 0.93landslides/mi 2 of land area …”. Given the large size of several of the harvest units and the high percentage of some small drainages that will be harvested it is still likely that new landslides will be created despite your best efforts. Harvest units need to be reduced in size, especially in small headwater drainages like Charlie Creek.

**Objection 12 = Culmination of Mean Annual Increment**

In my scoping comments I noted that some of the proposed units appear to be at locations which were regenerated by timber harvest less than 50-years ago. I asked if these proposed harvest units have reached culmination of mean annual increment and why are they being considered for reentry at this time. I could find no response to this comment anywhere in the project file or on the Nez Perce-Clearwater Forest Service website for this project

Sincerely,

*/s/ Harry R. Jageman*

Harry R. Jageman

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