March 5, 2020

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USDA Forest Service
Objection Reviewing Officer
Northern Region
26 Fort Missoula Road
Missoula, Montana 59804

Subject: Stray Creek Objection

Dear Sir:

I am very disappointed in your choice to ask for objections on this project at the same time you are asking for comments on the Revised Nez Perce-Clearwater Forest Plan. You did the same thing with the Black Skull, Lost Toboggan, Hisloc Fuels, Green Horse and East Saddle projects and asking for public comment at this time on these six proposals takes away precious time to review the extensive amount of material that you have produced for the Forest Plan.

Allowing only 120 days for review of the Draft Forest plan which you released over the Christmas holidays and then releasing six more projects within the same time frame, suggests that you really don't want meaningful comment on any of these proposals. Personally, I am only able to provide comment because I am retired. I could have never responded to all of these proposals when I was working and doubt most other members public have the time to keep up with your barrage of proposals. How many more projects do you intend to release before the end of the Forest Plan comment period on April 20th?

I am also disappointed that the Forest Service originally elected to combine the scoping and comment period for this project and only allow only 30 days to comment on the Preliminary Environmental Assessment. This is just another example of efforts to stymie meaningful public comment and short change the environmental review process. The incomplete preliminary EA did not include important information on several topics, including specialist reports for soils, hydrology, fisheries, soils and landslide risk. Now my only choice is to object to the proposal, which others who may have missed the scoping notice will not be able to do.

Objection 1 - Cumulative Impacts

The project is within the recently approved Lolo Insect and Disease project area and should have been analyzed with that proposal. The Lolo Insect and Disease project already includes a considerable amount of timber harvest in the Lolo Creek drainage and this project will only serve to accelerate cumulative impacts. Cumulative impacts have not been addressed in almost every aspect of this proposal.

Objection 2 - Failure to report actual water yield condition and road densities in Yakus Creek which is the primary Forest Plan watershed in the project area

The hydrologic analysis suggests the 29,269-acre Middle Lolo HUC-12 watershed was used to evaluate water yield conditions and drainage road densities, but this is not completely clear since the water yield calculations appear to be based on a smaller drainage that is listed as 10,032-acres at the top of the analysis worksheet. No maps are displayed to show how this smaller drainage relates to the larger HUC-12 watershed and Yakus Creek which is the primary Forest Plan drainage associated with the proposal. Impacts to Yakus Creek should be measured upstream of the Forest boundary, or upstream of Rat Creek as outlined in the Forest Plan. Using the larger Middle Lolo HUC-12 watershed to evaluate water yield and road density dilutes impacts of increased water yield and high road density within the smaller Yakus Creek drainage.

The water yield analysis suggests that the existing ECA of the 10,032-acre watershed will be 18% after harvest on the Lolo Insects and Disease Project and that this will increase to 22% following the Stray Creek project. The existing road density in the Middle Lolo sub-watershed is 3.2 miles/square mile, but it is also unknown what area was being evaluated to obtain this number.

According to the National Marine Fisheries Service (1998) an existing ECA (equivalent clear-cut acres) of less than 15% is generally indicative of good or high-quality stream condition, 15-20% is considered indicative of moderate quality stream condition and ECA of greater than 20% is indicative of low or poor-quality stream condition in HUC 6 watersheds. The 30% ECA value you cite in the EA only applies to small zero and first order headwater sub-basins located within the larger 6th Code HUC watersheds (NMFS 1998). Similarly, road densities of less than 1-mile per square mile is considered high-quality, 1 to 3-miles per square mile is considered moderate-quality and greater than 3-miles per square mile is considered low-quality.

Given the amount of past activity in the Yakus Creek drainage and the additional activity proposed on this project and the Lolo Insect and Disease project it is very likely that water yield conditions will or already exceed 20% ECA and 3-miles per square mile. Without this data, it is impossible to know how Yakus Creek is being impacted.

Objection 3 - The preliminary sediment analysis predicts that there will be no measurable increase in sedimentation in Yakus Creek or downstream locations, but this prediction is largely based on a subjective evaluation

The environment assessment suggests that Yakus Creek already exceeds Forest Plan sediment standard of 30% cobble embeddedness with the existing condition at 45% cobble embeddedness. Activities in streams currently not meeting Forest Plan standards must be designed to have no measurable effect to instream sediment (Forest Plan Lawsuit Settlement 1993).

Assumptions of the watershed analysis are very questionable. The idea that all sediment impacts will be short-term and mitigated by PACFISH buffers and other Best Management Practices is unrealistic and not supported by any data. Sediment production from roads has been evaluated in the WEPP Roads model, but there is no analysis for harvest activity. According to the EA (Page 21) harvest activity on similar forest projects "has the potential to increase erosion 2 to 15 times within units", but the EA suggests that all potential sedimentation from timber harvest will avoided due to BMPs and riparian buffers. The analysis claims in part this is due to "criteria that restricts skidding on steep slopes", but at the same time Design Feature SR-2 permits skidding on slopes up to 45%. These two ideas are not consistent.

The project includes 6-miles of road reconstruction that will include replacement of nine live stream crossings, installation of cross drains, road realignment or reshaping, road fill placement and the placement of surface gravel. There will be also be approximately four-miles of temporary road construction that will remain open until the completion of fuel treatments and reforestation. Temporary roads could remain open for several years until these activities and the actual obliteration is accomplished.

The environmental analysis does include a WEPP road analysis that predicts the amount of sediment that will not be captured by existing buffers. Adding up all increases for all segments (project minus existing condition) suggests that approximately 871 tons of sediment would be created by project roads. This sediment has not been routed to Yakus Creek or compared to natural stream sedimentation rate for Yakus Creek, but the EA does state that 202 tons of sediment per year would be delivered to Middle Lolo subwatershed as a result of the Lolo Insect and Disease project. No sediment contribution from the Stray Creek project is predicted due to BMPs and PACFISH buffers.

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 that will link directly to existing roads and road ditches. Construction of temporary roads and reconstruction of existing roads create a similar situation since PACFISH buffers do not intervene between these facilities and the existing ditch line.

During storm events sediment will be created from areas of exposed mineral soil that are common on skid trails, machine piled areas, existing roads and temporary roads. System roads generally are located at the base of most tractor harvest units. Skid trails are usually planned to enter the roadway from upslope areas often traversing the cut-bank of these roads at steep gradients and terminating in large excavated areas that are created to accommodate the landing of logs and loading of trucks. There are no PACFISH buffers between the skid trail, landing and the system road at the bottom of the harvest unit. Sedimentation from these facilities (skid trails, landings and temporary roads) connects directly to existing roads and drainage ditches. These in turn are linked to small streams that can carry sediment to larger fisheries streams.

Machine piling creates similar impacts as heavy equipment moves from the road into the harvest unit and back to the road. Areas of exposed mineral soil are common following machine piling. PACFISH buffers will not stop sediment once it reaches the ditch line.

The WEPP roads analysis includes existing buffers and sediment predictions of 871-tons is what is expected to be delivered to streams beyond the PACFISH buffers. It is unclear why PACFISH buffers are expected to reduce additional sedimentation as is suggested for several segments of Road 454-A. Any sediment created by the Stray Creek road and harvest units that reaches the drainage system will remain there and cause additional long-term impacts until it can be routed out of the drainage. Once routed out of the local drainage, the sediment will continue to cause downstream impacts in larger systems like Lolo Creek. The idea that these new impacts are short-term and will somehow improve the already impacted drainages is self-serving and not based on fact. The new impacts will only serve to further degrade the existing situation.

The EA suggests that past road decommissioning has provided beneficial impacts to the watershed and that 18-miles of past road obliteration has already improved stream conditions, but no data is provided to back up these claims. It is also mentioned that three more miles of road decommissioning in the Middle Lolo subwatershed was authorized under the Lolo Insect and Disease project. By the Forest Service’s own omission, Yakus Creek is still not meeting Forest Plan standards and it appears that the Forest Service is trying to take credit for road obliteration work that has been accomplished by the Nez Perce tribe with funding from the Bonneville Power Association. That funding is designed to mitigate for habitat losses associated with the Snake River dams and it is not to be utilized to offset sediment production that results from new timber sales or new road construction.

It is mentioned that the proposed 425-acre regeneration harvest unit does not include and high-risk landslide prone areas, but it is s unclear if reconstructed roads or new temporary roads occur on high risk landtypes. Roads and timber harvest should not be planned in areas with high and very high landslide risk. One slide could introduce more sediment into the drainage than the entire project and pose a real risk to the threatened and endangered aquatic species that live here.

Objection 4 – Permitting tractor harvest on slopes over 35%

Why is timber harvest by ground-based equipment being allowed on slopes between 35 and 45% (Design Feature SR-2) when past operations have shown that tractor harvest on such steep slopes has led to increased ground disturbance and sedimentation? When harvest is conducted by tractor on such steep slopes it is often necessary to construct excavated skid trails that cause unnecessary resource damage and there is a much greater risk to the safety of operators. You even quote in defense of your improved best management practices on page 22 of the EA that "……limiting tractor skidding to slopes less than 35 percent are now common practices." Why claim this as a best management practice and then allow logging on steeper slopes between 35 and 45%?

Objection 5 - Concerns about stand density, tree species composition and root disease are overstated in the context of the project area habitat types

The Forest Service appears to be concerned about stand density (EA- Page 1) as related to forest disease, insect attack and fire risk (EA – Pages 10-14). Forest Service concerns are that current stands are succumbing to unnatural rates of mortality due to insects and disease, and that there is a need to shift tree species composition away from shade-tolerant species toward more resistant and resilient early seral species. Most of the concerns in the EA appear to be related to the loss of existing trees to root disease.

I find these concerns to be overstated given the existing habitat types found in the area, the age of the existing project area stands and the actual amount of root disease. 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. The 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. 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 tolerant Douglas fir, grand fir and western red cedar are the norm for most of the project area and not the "high risk" situation described by the Forest Service in the Environmental Assessment. Root disease is also a normal stand component in these habitat types and no real evidence is presented in the EA to suggest that root disease is more prevalent in the project area than anywhere else on the Forest. Photos of root disease and dead and downed trees like those displayed in the project file, could have been taken in almost any forest stand on the entire Nez Perce-Clearwater National Forest. Root disease is an endemic pathogen that helps to create snags, downed logs and structural stand diversity, it is not the "catastrophic" problem that you suggest in your analysis.

Based on the information from Cooper et al. (1991) Forest Service ideas that the project area needs to be converted to more intolerant species such as white pine, ponderosa pine and western larch 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, these species 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 Forest Service prejudice against grand fir and Douglas fir, 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 grand fir, western red cedar or Douglas fir to white pine, larch and ponderosa pine? Two of these species were likely limited of limited distribution in the project area (Ponderosa pine and larch) and the third species (white pine) which I agree would have been more common is 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 91% of project area (Table 2 – EA page 8) is currently composed of grand fir and western red cedar cover types. 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 here. Contrary to your assertions in the EA, their presence does not indicate catastrophic risk for increasing levels of insect and disease attack. Such stands have survived thousands of years without human intervention and it can be expected that stands will naturally move to having higher components of western red cedar. 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.

In habitats like we see in the project area, 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 EA appears to consider major problems in the project area, when in fact they are part of normal stand development. 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.

No real evidence is presented that backs up the conclusion that the area is at high risk from root disease and that stand integrity is a risk. Goals of the proposed project appear to be fostered largely by the idea of increasing the level of timber harvest across the Forest. There appears to be no recognition of the importance of dead and dying trees and older stands to fish and wildlife populations and the historical conditions under which these stands and the species that utilize them evolved.

Claims about stocking density in existing stands also appear to be overstated. 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 an 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 6 - General wildlife concerns

My overall impression is that the Stray Creek project will further contribute to impacts from the Lolo Insects and Disease project and will have negative consequences to most wildlife species. The proposal includes another 425-acre regeneration harvest unit that will add to an existing proposal that already includes extensive timber harvest in rather large cutting units. Several regeneration harvest units proposed on Lolo Insects and Disease exceed over 200 acres in size and these large cuts are grouped together into blocks that appear to be over well over 500 acres in size. Harvest treatments will remove snags, downed wood, shrubs, understory plants and important hiding cover.

Stray Creek with add six more miles of road reconstruction and four miles of new temporary road. Even with decommissioning after use, temporary roads will provide travel corridors that may be accessed as user created routes. This has been observed on many past projects, and it may be difficult to maintain effective closures on these roads due to the lack of funding and inadequate law enforcement. Many "temporary" roads have been observed to be still open in other areas of the Forest (Little Boulder project and others) long after the timber sale that was supposed to close them was completed.

Like the Lolo Creek Insect and Disease Project, the Stray Creek wildlife 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. In many instances the analysis underestimates potential habitat and in turn potential impacts to those species. Most of the analysis is based on stand exam or Vmap database queries and there is a general lack of monitoring data to confirm any of the conclusions of the analysis. Spatial requirements of territorial species have not been considered and 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 Stray Creek and Lolo Insect and Disease projects; 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."

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. Right now the Forest Service is trying to significantly increase the amount of logging across the Nez Perce/Clearwater National Forest and numerous projects are in the works (Center Johnson, Clear Creek, Crane Point, East Saddle, End of the World, French Larch, Gold Hill, Hungry Ridge, Johnson Bar, Little Boulder, Lolo Creek, Lowell WUI, Lower Orogrande, Northside Powell, Orogrande Community, Parachute Fuel, Pete King, Red Moose Divide, Smith Ridge, Stray Creek, Tinker Bugs, White Pine, Windy Shingle, etc.). Little regard has been given to the impact of all of this activity on fish, wildlife and water quality. Like Stray Creek and Lolo Insects and Disease, none of these proposals ever causes any negative impact to fish and wildlife.

It is 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, 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 7 - Failure to follow the best available science for the protection of fisher habitat and consider the cumulative impact of the Lolo Insect and Disease project and other projects across the Nez Perce/Clearwater National Forest

As accurately reported in the Stray Creek Wildlife Effects Analysis most studies have found that fishers are reluctant to stray from forest cover and that they prefer more mesic forests (Buskirk and Powell 1994, Olson et al. 2014, Schwartz et al. 2013, Sauder 2014, Sauder and Rachlow 2014, Weir and Corbould 2010). Both Sauder and Rachlow (2014) and Weir and Corbould (2010) predicted the influence of openings on fisher habitat occupancy based on their data. For example, Weir and Corbould (2010) predicted that a 5% increase in forest openings would decrease the likelihood of fisher occupancy by 50%. Sauder and Rachlow (2014) suggested that an "increase of open area from 5% to 10% reduces the probability of occupation by fishers by 39%. Sauder and Rachlow (2014) reported that the median amount of open area within fisher home ranges was 5.4%. This was consistent with "results from California where fisher home ranges, on average, contained < 5.0% open areas" (Raley et al. 2012).

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 could significantly influence an individual fisher home range.

Sauder and Rachlow (2014) report the average home range size is approximately 12,200-acres and for a female fisher and approximately 24,300-acres for a male fisher. Home ranges generally do not overlap greatly for the individual sexes (21.3% for females and 15.3% for males), but male home ranges can overlap female home ranges. The wildlife analysis suggests that the Middle Lolo Creek HUC 29,520-acres was utilized to conduct the fisher analysis for the project. This watershed includes approximately 19,500-acres of private land and extends outside of the area previously analyzed for fisher habitat in the Lolo Insect and Disease project. Most of the area is also located outside of the Stray Creek project area. The Stray Creek project is completely within the Lolo Insect and Disease project area and it is unclear why the cumulative effects analysis area for the two project areas are different.

In the Lolo Insect and Disease project it was reported that existing openings account for 7% of the project area and that openings would be increased to 11% under the selected alternative. This would likely decrease the relative probability of occurrence of fishers from around 62% to 39%, which would be an expected drop in habitat quality of 23%. The amount of mature forest would drop from the current level of 50% to 48% under the Lolo Insect and disease project.

The Stray Creek project will add another 425-acres of regeneration harvest to the Lolo Insect and Disease project area and presumably decrease mature forest by a similar amount. This is an additional 0.5% increase in open habitat across the 72,781-acre Lolo Insect and Disease project area.

The Stray Creek fisher analysis appears to concentrate on conditions on private land outside of both the Stray Creek and Lolo Insect and Disease project areas, rather than the condition of federal land in the Lolo Insect and Disease project area. The analysis generally tries to make the case that the area is already heavily impacted by activities on private land and that fisher habitat is so degraded that it could not possibly support a home range for the fisher. It is estimated in the analysis that only 13% of the Middle Lolo HUC 12 watershed is mature forest and that 39% of the HUC is already open habitat. It is then suggested that the combined impact of the Stray Creek and Lolo Creek Insect and Disease project would reduce the Middle Lolo HUC 12 watershed to 12.6% mature habitat and increase the amount of open habitat to 40.5%.

The Stray Creek fisher habitat analysis is largely ignoring habitat conditions on federal land which should be the primary focus of the fisher habitat analysis. Knowing that adjacent private land has been heavily impacted by past management activity should foster increased emphasis on maintaining existing mature forests within federal ownership. It should not be used as a rationalization for more timber harvest by making the claim that the already heavily impacted and cannot support the species. The low numbers suggested in the analysis are largely an artifact of how the analysis area was selected, and not on the conditions within the Lolo Insect and Disease project area.

The Lolo Insect and Disease project area currently has the potential to support at least six viable home ranges for female fishers. In fact, with 50% mature forest and only 7% open area, the existing conditions are near optimum for the species. The Lolo Insect and Disease and Stray Creek projects only serve to reduce habitat quality for the fisher and both analyses need to be redone based on the average home range size of a female fisher (12,200-acres). I recommend non-overlapping home ranges that would be similar to the elk evaluation areas. Once identified, the home ranges need to be evaluated based on the recommendations of Sauder and Rachlow (2014).

The analysis has also failed to recognize numerous other projects such as Center Johnson, Clear Creek, Crane Point, East Saddle, End of the World, French Larch, Gold Hill, Hungry Ridge, Johnson Bar, Little Boulder, Lolo Creek, Lowell WUI, Lower Orogrande, Northside Powell, Orogrande Community, Parachute Fuel, Pete King, Red Moose Divide, Smith Ridge, Stray Creek, Tinker Bugs, White Pine, Windy Shingle, etc. These projects take a similar tact and have also reduced the amount of open area below the 5% threshold suggested by Sauder and Rachlow (2014). This is particularly concerning given the fact that most of these sales are occurring in the historically heavily logged “front country” that supports the most productive fisher habitat and the most productive forest stands on the Nez Perce Clearwater National Forest.

Objection 8 -The project area is much too small to evaluate impacts to goshawk habitat and impacts have been significantly underestimated. There is no evaluation of cumulative effects of this proposal and the ongoing Lolo Insect and Disease Project

The project area is much too small to properly evaluate impacts to goshawk habitat and does not consider the cumulative impacts of ongoing activities like the Lolo Insects and Disease Project.

Any evaluation of impacts should be at least the size of a goshawk home range and needs to include the impact of surrounding projects on goshawk habitat.

Moser (2007) and Moser and Garton (2009) reported the mean home range size of 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). Any evaluation of goshawk habitat needs to consider these findings and the home range size of a successful female goshawk (6,600 acres) is likely the most appropriate since Moser and Garton's data was collected in Northern Idaho and home range size for male goshawks can be significantly influenced by the number openings.

The Stray Creek Wildlife Effects Analysis suggests there are only 38 acres of existing nesting habitat in the project and that only 5 acres of this nesting habitat will be impacted by the proposed project. Given the fact that 45% of the 840-acre project area is composed of stands that have an average DBH of 15-20 inches and that there will be 425 acres of regeneration harvest in mature forest stands, this doesn't make any sense. It is very interesting to note that the cover photo on the preliminary EA appears to look like classic goshawk nesting habitat and that such stands are the target of the proposal.

Moser and Garton (2009) reported that all goshawk nests examined in their study area were found in stands that had an average DBH of overstory trees that 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)…."

Recommendations for the management of goshawk habitat (Reynolds et al. 1992) are available and should have been used in the analysis. These guidelines suggest that at least 180 acres of suitable nesting habitat be maintained in each goshawk home range. Nesting habitat is to be maintained in uncut blocks of at least 30 acres in size and these can be scattered around the home range. Regional direction based on Clough (2000) suggests the amount of nesting habitat should be increased to at least 240-acres and uncut nesting areas be increased to 40-acres. Post-fledgling areas (420 acres in size) are to be maintained around each nesting stand and these post-fledging areas are supposed to contain at least 60% older uncut forest.

These older uncut areas need to be protected after the active nesting season (Aug 15th) to assure that the nesting will be possible in the following year. Your mitigation measure that only restricts logging up to August 15th and offers no protection to the post-fledgling area after that time. This will likely result in abandonment of the nesting area the following year if there is extensive timber harvest in the post-fledgling area (Moser and Garton 2009).

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. Moser and Garton (2009) experimentally clearcut nest stands after the nesting season (average harvest unit size 104 acres) and compared use with unharvested nest stands. They found goshawks, re-nested when approximately 39% of the post-fledging area (164 acres) remained as potential nesting habitat. Based on their experimentation, they suggested post-fledgling mature forest cover could be reduced to 39% instead of the 60% figure recommended by Reynolds et al. (1992). However, these experiments were conducted on industrial forest lands and may pose greater risk to the species than would be appropriate for National Forest lands.

The project evaluation area needs to be at least the size of female goshawk's home range and include the cumulative impact of the Lolo Insect and Disease project. Little consideration has been given to the fact that nearby areas on State and Private land have already been compromised by extensive timber harvest and that a great deal of new activity is being proposed in other areas across the Forest. Clearly, the best available science does not support the contention that the goshawk will be unaffected by the Stray Creek and Lolo Insect and Disease projects. Several potential home ranges will be compromised by these two projects and other previously mentioned proposals that are occurring across the Forest. At some point, the impact to the goshawk and other species that depend on older forests is going to become significant.

Objection 9 - The project will eliminate any potential for successful nesting by pileated woodpeckers in the project area and does not account for cumulative impacts across the Nez Perce Clearwater National Forest

The Stray Creek Wildlife Effects Analysis predicts that there will be minimal impact on the pileated woodpecker because there are only 45 acres of pileated nesting habitat in the project area and only 5 acres of that nesting habitat will be impacted by the proposal. These numbers seem very low given that the vegetation analysis suggests that 45% of the 840-acre project area has average DBH between 15-20 inches and over 425 acres of timber harvest is occurring within the project area. Some stands with an average DBH between 15-19.9 inches likely include individual snags/trees exceeding the 20-inch diameter size category usually reported as the minimum size for nesting by this species (Bull and Holthausen 1993, McClelland and McClelland 1999) and timber harvest likely will target stands in these larger size classes.

Pileated woodpeckers are reported to have home range sizes of approximately 1005 acres (Bull et al. 1992). Thus the 840-acre project area is slightly smaller than the typical pileated woodpecker home range and could potentially support one nesting pair of pileated woodpeckers. The proposed project will harvest 425-acres of mature forest in one large harvest unit, which is approximately 50% of the project area. This large block will remain unsuitable for foraging or nesting by pileated woodpeckers for 100-150 years as the new trees mature into size classes suitable for nesting and/or foraging.

Guidelines are available for the management of pileated woodpecker habitat (Bull and Holthausen 1993), but these guidelines have not been considered in the analysis for this project or the adjacent Lolo Insect and Disease proposal. These guidelines recommend that approximately 25% of the home range be old growth and 50% be mature forest. They suggest 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 pileated woodpecker 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 Stray Creek project and the adjacent Lolo Insect and Disease 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 (any type of logging including fuel reductions). Whereas unsuccessful nesters had 62% of the home range unlogged and 38% logged (Bull et al. 2007).

Using the guidelines, it appears the project area would likely become unsuitable for successful nesting by pileated woodpeckers as a result of the proposal and that pileated woodpeckers would have to move to adjacent areas to find suitable habitat. This is likely true for several other areas of concentrated timber harvest in the adjacent Lolo Insect and Disease project area. Like the Stray Creek analysis, the Lolo Insect and Disease project was not spatially explicit in regard to the impact on individual pileated woodpecker home ranges. Conclusions on both projects suggest that sufficient habitat will be available in other areas of the Forest to provide for viable populations of the pileated woodpecker.

Little consideration has been given to the fact that nearby areas on State and Private land have already been compromised by extensive timber harvest and that a great deal of new activity is being proposed in other areas across the Forest. Clearly, the best available science does not support the contention that pileated woodpeckers will be unaffected by the Stray Creek and Lolo Insect and Disease projects. Several potential home ranges will be compromised by these two projects and other previously mentioned proposals that are occurring across the Forest. At some point, the impact to the pileated woodpecker and other species that depend on older forests is going to become significant.

Objection 10 - Elk habitat calculations do not make sense given the actions that are being undertaken

The Stray Creek Wildlife Effects Analysis reports that the current elk habitat potential is 47% according to the "Interagency Guidelines for Evaluating and Managing Elk Habitats and Populations in Central Idaho". (Servheen et al. 1997). According to the analysis there is no change in elk habitat potential during the project and after the project is completed there is an actual improvement in elk habitat potential to 48%.

With 425-acres of regeneration harvest in one unit, opening of several closed roads, the construction of four miles of temporary road and an unknown amount of activity on the Lolo Insect and Disease project this makes absolutely no sense. The large 425-acre harvest unit will include several areas that are more than 500-feet from adjacent cover. These areas will largely be unavailable to elk due to their reluctance to stray far from forest cover. Habitat deductions are supposed to be made to the elk habitat model when forage is over 500-feet from cover. Instead of decreasing values due to the large cut, it is suggested in the elk habitat calculations that the size and distribution of forage actually improves from 7% to 9% as a result of the project proposal.

The cutting will also remove hiding cover from adjacent roads and this will increase the impact of those roads on elk habitat potential according to the model. Several of the existing roads and most of the new temporary roads are within or border the proposed regeneration harvest unit. The elk habitat analysis displays no deductions to habitat quality when vegetation adjacent to roads is removed. All roads are still shown as being adjacent to hiding cover in the model calculations, despite the fact that they are within or border the proposed regeneration harvest unit. It seems very improbable that 425-acres of regeneration harvest and an unknown amount of activity from the Lolo Insect and Disease project would not result in a loss of hiding cover along existing and proposed temporary roads.

There also appear to be some discrepancies in the amount of road in the elk evaluation unit. The existing condition values suggest there are 8.3 miles of open arterial road, 2.3 miles of open local road and 14.3 miles of completely closed local road or a total 24.9 miles of road in the elk unit. Miles of open road do not change (i.e. 8.3 of arterial and 2.3 of local) during project implementation, but there are now 9.58 miles of local road closed with a gate and 8.42 miles closed completely, and 6 miles of primitive road closed with a gate. This adds up to 34.6-miles of road during project implementation. An increase of 9.7-miles from the existing condition.

Post-treatment roads go back to the same mileages as the existing condition, suggesting that 9.7 miles of road are going to be decommissioned. The project proposal only constructs and decommissions 4.0 miles of temporary road and does not decommission any roads on its own.

How do the other 5.7 miles of road "disappear" between implementation and the post-treatment phase? Are these roads being constructed on the Lolo Insect and Disease project and are there associated harvest units on the Lolo Insects and Disease project in the EEA? No map of the Yakus Creek EEA is provided in the Environmental Analysis.

Sincerely,

/s/ Harry R. Jageman

Harry R. Jageman

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