May 12, 2024

Comments on Draft EA for Midnight Project, OWNF

**General Comments**

Since the body of the Draft EA largely highlights and summarizes some of the contents of the various Specialist Reports and the Appendices, many of the comments below are specific to them. My first comment is that all of the Specialist Reports were entirely written by contractors who would not be very familiar with the project area, and possibly never visited it.

Which contractors who were authors of either a Specialist Report or portions of the Draft EA ever visited the project area, and if they did so, how long were the visit(s)?

Appendix C of the Draft EA lists people that were in some manner involved in the Draft EA. All the contractors that were authors of the Specialist Reports are included in this list, as are some USFS employees. Who actually authored most of the of the body of the EA and its Appendices, USFS staff or contractors? Did USFS staff only review and comment on what contractors wrote? If so, why would USFS staff for such a very large, complex, and controversial project not be charged with directly authoring the EA in order to apply both their expertise and their familiarity with the project area conditions and concerns?

I am supportive of some scale of limited thinning in the project area to try to achieve the stated desired future conditions of restoring (improving) forest stand conditions and reducing the risk of large crown fires. I do, however, believe that the very narrow no cut buffers along streams will not adequately protect aquatic resources. In addition, the very heavy level of thinning with few trees retained per acre post-treat, and large maximum diameter of trees proposed to be harvested for many of the land management categories, is much greater than needed or warranted to achieve the desired conditions. As currently proposed this project would in some ways be detrimental in achieving the desired conditions stated in the Draft EA.

I also found inadequate, if any, rationale, justification, and citation of peer reviewed literature for why a target of only 20% crown closure is proposed. This is far too little post-project crown closure to achieve the stated desired conditions. Such a small percent of crown closure is not warranted or needed to reduce the risk of crown fires, nor to promote the growth of late-seral, and mixed age stands. In addition, these actions within the setting of the current and likely future climate of project area will cause excessive soils temperatures in the summer resulting in dry and adverse conditions for tree growth and increased drought stress. They would also and greatly reduce snowpack retention in the winter. It does not support the desired future condition.

The many pages of text that try to describe the proposed treatments in Appendix A are extremely difficult to track and attempt to get an overall picture of the proposed action. I request that a summary table be added to Appendix A that would include, but not necessarily be limited to proposed post-project trees per acre by diameter and species for each land management allocation. This would seem to be very valuable for USFS staff as well.

In addition, I did not find a description of the proposed timeline of the entire project and if the original EA is planned to be used for the entire time, or if it would be revised or amended as condition and changes in actions required. Please add this information into the EA if it does not already exist. If it does already exist, I apologize for missing it.

**Concerns regarding non-compliance with the National Environmental Policy Act**

The scope, scale, complexity, presence of nine ESA-listed species, extensive areas of wildland urban interface, significant, and general controversy among interested parties and affected landowners of this project clearly demonstrates that there may significantly effects to the quality of the human environment, thereby requiring the preparation of an Environmental Impact Statement (EIS).

The Draft EA has text in various locations that appear to be contradictory regarding how much of the proposed project would be condition based and how much would be site specific. For instance, page 6 of the EA states that about 25% of the project area would be condition based, but Table 1 shows that about 32.08% of the understory treatments, and 51.34% of the overstory treatments would be condition based. Page 7 states that “approximately 5,253 acres of the project area is under consideration for condition base thinning and prescribed fire”. Based on the numbers listed in Table 1 the 5,253 acres cited on page 7 appear to be those acres of ‘understory’ treatment that would or could be condition based, not the total number of acres, which according to Table 1 would be 5,253 (understory) plus 6167 (overstory) which totals 11,420 aces. So, among all the proposed overstory and understory treatments Table 1 shows that about 40.2% would be condition based. Please make any necessary changes in the EA to reflect this, and more importantly explain and justify why 40% of the proposed treatments cannot be site specific.

In addition, USFS 'standards', such as LSR standards are mandatory, they are not optional. If a standard is not going to be adhered to, the Forest Plan needs to be formally amended to change that standard, and if the standard stems from the USFS Handbook or Manual, or from Regional Standards, those documents must also be amended or revised. The proposed action appear to deviate from some of these standards.

**Concerns re the Draft Fire Fuels and Air Quality Specialist Report**

What other fire behavior and risk assessment models were evaluated for potential use for this project beyond the Interagency Fuel Treatment Decision Support System (IFTDSS)? The USFS supports many models including, but not limited to, FSPro, FSIM, FARSITE, and FlamMap. Why was IFTDSS chosen to be the best model among all other available models? For instance, the well-developed and well supported USFS FSIM model is often considered to be the most appropriate and useful model to assess fire risk potential for pre- and post- project implementation in Washington and Oregon. Why was it not used?

**Concerns re the Draft Hydrology Specialist Report**

This report states “There are several locations outside of the project area with 303(d) Category 5, 4A, 4C, 1, and 2 Assessed Waters”. Twisp River is listed for dissolved oxygen, temperature, instream flow, ammonia, and bacteria (these are all downstream of project area). The Twisp River is listed for not meeting State standards for temperature within the project area. The report solely claims that the proposed project would not further degrade water temperature, it proposes nothing to improve them, even though this is a ‘restoration’ project. Wolf Creek is listed for into meeting standards for in-stream flow outside of the project area due to irrigation withdrawal. The report does no analyze how the proposed project would impact low summer baseflows in the Twisp River downstream of the confluence with Wolf Creek.

Land managers of water body segments that appear on the 303(d) list for not meeting State standards for one or more variables are required to complete improvement plans or Total Maximum Daily plans (TMDLs) for how to attempt to improve conditions for those variables to be compliant with State standards. Most of the water body segments in the 303(d) list near the project area are outside, but near to the project area. This does not mean the USFS has no obligation to try to improve conditions for some of those variables since some of the sources of problems may be result from the sum total of conditions both within and downstream of the land management actions upstream on OWNF lands. Once such example is dissolved oxygen which is directly related to water temperature. The Hydrology Report says nothing about studying this problem or developing and improvement plan, even for the water body segments within the project area are listed for not meeting State standards for temperature. The USFS routinely writes improvement plans or TMDLs to try to improve conditions to meet State standards. This project is not in compliance with State water quality standards it does not propose anything to improve water temperature and dissolved oxygen. Again, this project is portrayed to be a restoration project.

The report only briefly mentions the estimate project effects to flow regime (one paragraph in Table 1 of section 3.4). It cites one 28-year-old reference (Stednick 1996) from an experimental forest in a different ecoregion with a different climate to estimate that annual runoff would increase 0.1 % for each 1% of the area harvested. It further states that this estimate will not be used since there are no planned clearcuts. Hence this report does not analyze and estimate impacts to the recurrence interval and the magnitude of peak flows from the proposed action. Furthermore, It does not address in any way the estimated impacts to low summer baseflows which are critical in supporting aquatic populations and state standards for temperature and dissolved oxygen. It also has no discussion on the impacts to snowpack and snow melt out, which is also critical. The report is inadequate in analysis.

**Concerns re the Draft Economic Analysis Specialist Report**

Some of the estimates in Tables 5 and 6 appear to contradict one another, or at the very least are confusing. For instance, in regard to the action alternative Table 5 states:

“Commercial harvest would create 69,000 MBF of timber harvested and generate $12.2 million for use on restoration treatments associated with the project. Up to 158 direct FTE jobs and 212 indirect FTE jobs would be created or maintained. New, additional sources of both commercial and personal use firewood, as well as biomass material for biochar would become available.”

In regard to the action alternative Table 6 states:

“Between commercial thinning and stewardship activities, 60 direct annual jobs are created. A total of 98 jobs are created in the Okanogan local economy with an annual income of $4.7 million. Due to a weak local economy, total statewide jobs are much larger at 221.”

The quote from Table 6 says 60 new jobs will be created but in the next sentence says 98 new jobs will be created just within Okanogan County. Table 5 states “Up to 158 direct FTE jobs and 212 indirect FTE jobs would be created or maintained.” This sentence is confusing and appears to be inconsistent with the numbers in Table 5. It also does not clarify which of these jobs would be ‘created’ versus ‘maintained’, nor what these ‘maintained’ jobs are or where they are.

Please edit as necessary to clarify how many estimated new jobs would be created overall, how many of those would be year-round jobs versus seasonal jobs, and approximately how many years these new jobs would exist.

**Concerns regarding the Draft Aquatic Specialist Report and potential adverse effects to several species listed as threatened or endangered under the Endangered Species Act**

The discussion below includes several excerpts from the Aquatic Specialist Report. They are copied her in order to facilitate a better description of concerns.

“4.2.3 Summary of Alternative 2 Effects to ESA, R6 Sensitive, and MIS Species; and to EFH

**4.2.3.1 Summary of Effects to ESA-Listed Fish Species**

“There is a potential for short-term, adverse effects to ESA-listed fish species within the project area. The project includes some road-related activities, such as road maintenance and reconstruction, and opening closed roads, which are expected to cause short-term increases in turbidity and substrate embeddedness in critical habitat. This work could occur in the spring, summer, or fall when redds are in the gravel or alevins are emerging. Fine sediment deposition on redds has potential to fill-in interstitial spaces and could smother eggs or alevins or act as a physical barrier to fry emergence (Fudge et al., 2008). Project-related sediment increases may cause localized, low-level overloading of spawning gravel, slightly reducing spawning habitat quality. Increased substrate embeddedness could slightly diminish the foraging attribute of occupied habitat for a short period of time, but not to the extent it would appreciably reduce rearing habitat quality. Design criteria and BMPs are expected to reduce the level of direct impacts to fish and their habitat. Proposed treatments largely avoid work within or adjacent to streams and fish habitat via No-Treatment buffers, 100 feet along perennial streams and 75 feet along intermittent streams for commercial thinning (Riparian Reserve Thin), and 50 feet along perennial streams and 25 feet along intermittent streams for hand-thinning (Stand Improvement Thin).

In the long term, habitat quality in the project area would improve substantially, moving habitat critical habitat towards desired conditions. Thinning and prescribed fire treatments in Riparian Reserves would directly help restore riparian and aquatic function by promoting the development and maintenance of large tree structure that provides shade and wood recruitment for streams, improving fish habitat viability. The riparian treatments also promote a complex and more resilient riparian forest structure that is preferred by riparian dependent species, and can maintain its functions of providing shade, contributing terrestrial organic materials to the stream, and intercepting and reducing sediment to the stream.

Overall, the proposed changes in the project area’s road system includes closing and decommissioning roads, which would reduce the road drainage network, and help to reduce chronic sediment delivery to local streams, thus reducing the impacts of fine sediments in stream gravel and improving fish habitat viability. The proposed action is anticipated to result in a “May Affect, Likely to Adversely Affect” determination to Upper Columbia spring Chinook, Upper Columbia River steelhead, and Columbia River bull trout and their designated critical habitat, due to the unavoidable short-term impacts from mostly road-related activities necessary to accomplish vegetation management actions and watershed function restoration that would potentially introduce increased sediment loading and turbidity to salmonid-bearing streams.

Consultation on the effects of proposed treatments on federally T&E fish species are currently underway with the USFWS and NOAA Fisheries and will be completed before a final decision is signed for this project.”

The report also includes the following definitions:

**“Short Term:** An effect that would be detectable only after a short period of time after the proposed activity has been carried out, generally within hours to a few weeks for smaller, more localized activities, or up to months or 1-3 years for larger and wider-ranged activities. For example, dropping trees into a stream would temporarily increase suspended sediment levels, but it would be undetectable after a few hours, whereas decommissioning a road that crosses a stream can generate sediment to the stream for up to 3 years before it stabilizes with vegetation (Klein, 2003; Madej, 2001).

• **Long Term:** A change in a resource that will not return to its condition prior to the activity for greater than 3 years. An example includes completely removing overstory trees along a stream could increase solar radiation reaching the stream, increasing stream temperatures to suboptimal tolerance levels for salmonids within the exposed reach and downstream reaches for years.”

The project area includes Endangered Upper Columbia Spring Chinook, Threatened Upper Columbia River Steelhead, and Threatened Columbia River Bull Trout. The draft ESA effects determinations contained in the Aquatics report (that will probably later be included in the USFS Fisheries Biological Assessment that will be submitted to the Services) is that the proposed project will “**Likely to Adversely Affect**” each of those species. The Twisp River within the project area is already listed as not meeting Standards for temperature (too high in summer), and both temperature and dissolved oxygen levels are listed as not meeting State standards downstream of the project area. Bull trout are especially at risk from high temperature. The project proposes to only have 50 feet no -cut buffers along perennial streams in ‘stand improvement thins’ when trees would be harvested by hand. This drops to only 25 feet for intermittent streams. All of these streams feed into fish bearing streams. The report states that overstory treatments within riparian reserves (outside of narrow no-cut buffers) would result in a minimum canopy cover of only 40%. Such a post-project condition would increase water temperatures in some stream reaches for a periods of one or more decades, even under the assumption that canopies of retained trees partly quickly grow and increase the percent canopy cover.

In regard to the action alternative the Aquatics report states:

“When the activities described above take place near streams, their impacts can include increased stream sedimentation and temperatures, reduced organic inputs, reduced streambank and channel stability, altered hydrology, and reduced recruitment of instream wood (Everest and Reeves, 2007; Dwire et al., 2016). These impacts can be ***short- or long-term, depending on factors like treatment method, location, and intensity.*** The Midnight Restoration Project incorporates design features that would minimize the duration and intensity of these impacts, effectively ***limiting them to short-term duration and minor intensity***. For example, a minimum 40% canopy cover would be maintained wherever thinning treatments are proposed in Riparian Reserves, which would create understory species diversity, snags would be created and maintained, and recommended levels of downed woody would be left on site, thus helping to maintain and contribute to a riparian forest that can retain its functions of maintaining shade, contributing organic materials to the stream, and intercepting and reducing sediment to the stream.”

The report defines ‘short term’ as 1-3 years. As noted earlier, decreases in stream shading, and hence increases to water temperatures, would persist far beyond 3 years in waters that are already too warm to meet State standards, so they would neither be ‘short-term’ nor ‘minor’. The ‘long-term’ improvements in riparian stand conditions as stated in the report would not occur until far beyond the 3-year minimum metric used in the report.

The report does not adequately assess this issue and defend how the extremely narrow no cut buffers for hand cut units are adequate to maintain or improve already at-risk temperatures for this restoration project. Expected long-terms positive impacts (if they occurred as estimated) do not offset the estimated serious short-term impacts to fish that are listed as Threatened, much less Endangered.

The Twisp River is designated as a Tier 1 Key Watershed. The Aquatics report states “Key Watersheds serve as large areas of refugia that are crucial to maintaining and recovering habitat for at-risk fish species and stocks. These refugia include areas of high-quality habitat, as well as areas of degraded habitat. The goal of Tier 1 Key Watershed objectives is to contribute directly to the conservation of at-risk anadromous salmonids, bull trout, and resident fish species.” The report refers to the effects of roads on sediment delivery but does not cite literature to explain and defend how proposed treatments in riparian reserves will maintain or improve temperatures in streams where temperatures are already too high for ESA-listed species. The analysis is not adequate.

The risk, magnitude, and duration of negative impacts from sediment delivery to stream channels for both road re-openings and mechanized commercial harvest and yarding is underestimated. This issue is not adequately analyzed nor defended and justified via published literature. The project proposes to widely use ground-based mechanized equipment on slopes up to 35%, use ground based on slopes of 35-35% with permission from either the sale administer or the USFS soil scientist, and use ‘tethered‘ felling and yarding equipment on slopes of 45-80%. These are extremely steep slopes with high risk of soil displacement and erosion, delivery of sediment to stream channels, and possibly potential slope failures.

The no-cut buffers for these treatment is only 100 feet for perennial streams and 75 feet for intermittent streams. There would be a ‘moderate’ (as that term is defined in the report) risk of significant sediment delivery and consequent degradation of stream habitat over the long-term (i.e. more than 3 years) on these steep to extremely steep slopes. The risk would not be limited to ***“short-term duration and minor intensity”*** as stated in the report.

The Report states “TM-1; Prohibit timber harvest, including fuelwood cutting, I RRs, except as defined below”. It later states “The Midnight Project is consistent with TM-1 by limiting timber harvest in Riparian Reserve to locations where this treatment would restore riparian forest vegetation conditions consistent with Aquatic Conservation Strategy objectives”.

Please edit and revise the Draft EA as necessary to clearly identify what areas, if any, of riparian reserves within the project area will prohibit timber harvest.

**Concerns re the Draft Soils Specialist Report**

Some of the concerns and issues related to soils were discussed above in the section on Aqutics, so please also refer to when discussing impacts to soil resources.

This report defines ‘short-term’ as 5-10 years and ‘long-term’ as more than 10 years. It states that there would only be ‘minor’ ‘short-term’ direct adverse impacts to soils. Considering the scale of project area, intensity of thinning. Extensive use of ground based and ‘tethered’ felling and yarding equipment on steep to extremely steep slopes planned for harvest (up to 80%), and all the road related work, there would clearly be a long-term risk of ‘moderate’, if not more adverse negative impacts to soils. Much of the planned road related aspects of this proposed action would have beneficial aspects over both the short- and long-term, but some residual adverse impacts may still be present if the road decommissioning and culvert upgrading to no get funded and implanted quickly.

The report states that 2% of the riparian reserves where overstory harvest would occur would have significant rutting, compaction, and rutting. It also states that this would go up to 10% in all other overstory treatment areas. What was the methodology used to make these estimates? Perhaps I missed that. In addition, how will the project be monitored (by whom and specifically how) to assess if these percents are exceeded, and how would adaptive management changes be made in time to minimize any exceedances?

**Concerns regarding compliance with the National Forest Management Act (NFMA)**

The NFMA required that all those aspects of a proposed action that are required under the Forst Plans as modified by the NWFP, USFS Manual and Handbook, ESA Biological Opinions (BO) issued by the Services, and all other relevant laws be fully captured in all timber sale contracts, and that compliance with these requirements be monitored and reported. What specific plan does the OWNF have to monitor and enforce the many requirements described in the Draft EA and supporting documents, as well as what the Services require in the BOs?

**Concerns regarding non-compliance with the Northwest Forest Plan**

Some of the planned actions for this project are not compliant with the specific requirements of the NWFP. For instance, but not limited to, not being compliant with some of the requirements of the ACS because the EA and its supporting specialist reports and other supporting documents greatly underestimate the negative impacts that would occur over the short- and long-term (as described above) and make the project non-compliant. In addition, the Forest did not revise (as required) the very dated Watershed Analysis which would have been critical to have in planning this project, especially when it includes a Key Watershed. When a Forest proposes to deviate from the NWFP they must issue a project specific amendment to the NWFP for that project. I did not find such an amendment in the supporting documents included on the project website.

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