Data Submitted (UTC 11): 1/13/2026 3:50:20 AM
First name: D. Brady
Last name: Green
Organization:
Title:
Comments: Mt. Baker-Snoqualmie National Forest (MBS)
Forestwide Thinning (FWT) Analysis Project #68852
To: Erin Uloth, Forest Supervisor, Mt. Baker-Snoqualmie National Forest

Re: Mt. Baker-Snoqualmie National Forest (MBS) Forest-wide Thinning (FWT) Analysis Project #68852 Draft Environmental Analysis (DEA) (December 2025).

Date: January 12, 2026
Thank you for the opportunity to provide comments on the proposed Mt. Baker-Snoqualmie National Forest (MBS) Forest-wide Thinning (FWT) Analysis Project #68852 Draft Environmental Analysis (DEA). Following are my comments.

Introduction
I worked for the USFS since 1977, and on the Mt. Baker Ranger District as a fisheries biologist, starting in 1984 until retirement in 2003. I am very familiar with the Nooksack, Skagit, and Stillaguamish River watersheds.

One of my first assignments on the MBS in 1984, was to evaluate impacts to lower Canyon Creek, an important tributary to the NF Nooksack River after an inner gorge slide/dam break/and surge flow flood had occurred, releasing a significant amount of sediment that buried many Chinook Salmon redds as well redds of other salmon species under many feet of sediment (USDA FS 1995).

I am very familiar with the Deer Creek watershed as well as the North Fork Stillaguamish River system. Another of my first field trips in 1984, was to the DeForest Creek to observe the devastating 1984 DeForest Creek landslide that released an estimated 1.8 million cu. yds. of sediment into the system (USDA FS 1996). This slide seriously impacted salmon and steelhead habitat, including the regionally and nationally known historical Deer Creek summer-run Steelhead, in Deer Creek and downstream areas on the NF Stillaguamish River system all the way to Port Susan Bay.

Another area that I am familiar with is Finney Creek, a tributary to the Skagit River, which was listed as impaired for temperature in 1998 (USDA FS 1999, Nichols, and Ketcheson 2013).

As a result of a forest-wide watershed condition analysis,19 watersheds were rated as being in an unacceptable condition and 51 in an acceptable condition (Appendix H in the MBS LRMP, USDA FS 1990). Most of these unacceptable watersheds (80%) were found on the more geological sensitive north end of the MBS.
The primary focus of my comments is on the project impacts to aquatic habitats and aquatic species (especially ESA listed fish), riparian habitats, hydrology, fisheries, and soils areas. The Project Implementation Areas (PIAs) contain Designated Critical Habitat for three ESA-listed Threatened fish species: Puget Sound Bull Trout, Puget Sound Chinook Salmon, and Puget Sound Steelhead. The PIAs contain eight Bull Trout Core Areas in the Puget Sound region (USDI FWS 2025), Puget Sound Chinook ESU, and Puget Sound Steelhead DPS (USDC NMFS 2025). This includes major watersheds and their tributaries in the Nooksack, Skagit, Stillaguamish, Snoqualmie and White river systems.

There is a recognized need for thinning second growth forest stands on the MBS that were previously harvested and replanted and have grown back into dense stands. Proper thinning can be very effective and help improve stands so that they are more productive and provide more diverse habitat for native species. However, what is critical is where these stands are located, in relation to naturally occurring unstable soils, and slopes and the

intensity of thinning.
Stands in, or near, riparian and Riparian Reserve (RR) areas and their proximity to high risk and geologically unstable soil areas, should be avoided due to the risk of exacerbating erosion of existing unstable soils and opening the canopy, increasing water temperature in temperature-sensitive streams.
Many of the watersheds on the MBS typically contain a high frequency of glacial geology, sensitive soils and steep topography, history of rain-on-snow flood events, extensive naturally occurring unstable soils, slope stability issues, poor road maintenance, and history of extensive logging and road building impacts. It is critical that these treatments be done carefully and focus on areas that have stable soils. Based on our recent experience evaluating the NF Stillaguamish Landscape Analysis Project, due to the extensive areas of naturally unstable soils in many watersheds in the PIAs, that when actual field work for each stand and road access is finally completed, many stands will be dropped as a result, and therefore there may not be enough commercial timber value left for a viable timber sale contract.

I have significant concerns about the ability of the MBS to accomplish the numerous tasks identified (Appendices A & B) in this DEA with the present staffing and funding, considering the significant recent staffing and funding cuts under the Trump Administration. With the present uncertain funding and staffing, it is not reasonable to assume that there will be adequate funding available anytime soon to prepare for this extensive project considering there are so many outstanding tasks to complete. (See detailed discussion below under DEA Comments).

General Comments
Under "Project Milestones" the "Scoping Start" is listed as 9/3/2025. I am not aware of any scoping having been done for this project in 2025, so it is incorrect to say that was scoping done for this project. Past MBS projects always had scoping periods where the public could provide comments prior to a Draft EA.

The FWT Project would thin a maximum of 1,200 acres annually over 30 years with an upper limit of trees harvested up to 20 inches in DBH (diameter at breast height) in LSR and is asking for Regional Office authority to increase the upper diameter limit to 26 inches DBH. According to the 11/2025 request letter the "current 20-inch diameter limit would prohibit work needed to meet project objectives." The reason for this change seems to be more about increasing the commercial timber value for the timber sale. Leaving trees in stands between 20-26 inches DBH after thinning smaller diameter trees around them would provide opportunities for these larger trees to better meet LSR objectives, rather than to be harvested.

It is a serious concern that stand exams for many of these PIA's are either very old, out of date, or non-existent and the MBS does not have the staff or funding to conduct needed stand exams for this thinning treatment project.

Creation of complex riparian structure by thinning in RR's sounds great, however, many of these riparian areas in PIA's that have identified stands for potential treatment (Fig. 1) are in, or immediately adjacent to, areas with very unstable soils and on steep ground with a history of stability problems. Project activities will occur in areas adjacent to streams: either in upland areas, in the RR, or within no-harvest stream protection buffers (26.1.4, Stream Protection Buffer Effectiveness, Page 363, FWS 2025). Even with proposed mitigation measures (PDC B4), there are significant concerns about the potential for resource damage resulting from thinning-related treatment activities (treating alder stands, understory thinning, skyline yarding corridors, fall and leave treatments such as dropping trees into stream channels, etc.) in these RR areas. For example, recent experiences in the North Fork Nooksack River system (Ruth Creek, near Hannegan Pass Trailhead and NF Nooksack River, near Excelsior Group Camp) where the MBS cut trees and dropped them into streams and rivers for restoration purposes, which resulted in serious damage to stream channels, stream banks, aquatic habitat, adjacent roads and even loss of access to an important trailhead into the North Cascades National Park. Without conducting hydrological modeling prior to tree placement to estimate storm flows and channel capacity, these tree placements will result in more adverse flooding, dam break floods, severe bank erosion, and more habitat

damage will occur. The regional guide (USDA FS 2019) states on page 73 that "Tree felling shall not create excessive stream bank erosion or increase the likelihood of channel evulsion during high flows." However, the guide does not include any provisions for conducting pre-project planning or modeling to determine potential benefits or risks.

The damage resulting from thinning-related treatment activities may be more than any habitat benefits that might result. It is estimated that an average of 345 acres of RR will be impacted annually (Table 2, Appendix A, USDI FWS 2005).

The condition of many of the watersheds proposed for thinning are sensitive and at risk. This is due to a combination of extensive natural instability (geology, soils, topography) and steepness of many of the channels, together with land management history, that has created unstable stream banks along the mainstem of many rivers and streams on the MBS. Especially at risk are upper NF Stillaguamish River (Deer Creek, Little Deer Creek, Higgins Creek, and major tributaries), NF Nooksack River (Canyon Creek), SF Nooksack River (Wanlick Creek), Skagit River (Finney Creek), just to name a few.

The FWT Project proposed BMP's, Project Design Criteria (PDC), soil/water/fish design criteria (DC), NWFP standards and guidelines (S&S's), Reasonable and Prudent Measures (RPM's), WDOE Clean Water Act water quality standards, etc., are intended to minimize environmental impacts. However, due to the extent of unstable soils in many of the PIAs, there would still be a high risk that the project would result in negative impacts to the aquatic habitats and their species, as well as the three ESA-listed Threatened fish species.
Based on recent experience evaluating the NF Stillaguamish LA Project, after actual field work for each forest stand and road access is finally completed, many stands will be dropped due to the extensive areas of naturally unstable soils in many PIA watersheds. Therefore, there may not be enough commercial timber value left for a viable timber sale.

Restoring riparian habitat and transportation systems within the project area will require adequate funding and staffing to have a chance of accomplishing any of the objectives. The MBS has received very little funding for road maintenance over the last 10-15 years and lacks adequate engineering staffing. Where is the funding going to come from to accomplish all the road and engineering objectives?

Based on soil mapping conducted by Snyder and Wade (1970) many of the PIA's contain extensive areas with deep glacial soils and deep glacial lake-deposit soils (Lacustrine) which are generally highly erosive and unstable as well as deep, unstable soils occurring on steep toe-slop and midslope drainages. Many valleys have a considerable amount of deep, unstable, glacial lake deposits, till and outwash soils. This instability is caused by a combination of steep slopes, fine textured plastic subsoils and restrictive drainage and natural deep-seated failures that frequently occur and are greatly accelerated by management activities (Snyder and Wade 1970).

With all the natural soil instability in the PIAs, road decommissioning will not be 100% effective, will not bring back to historical conditions prior to road construction, and will require significant monitoring and road maintenance, due to the prevalence of naturally unstable soil areas in these watersheds. The per mile cost of decommissioning a road can be as expensive as building a new road. Where is the funding coming from to do all of this?

The FWT Project estimates that in the PIAs, annually over 30 years up 6 miles of temporary roads, up to 24 miles of road reconstruction, up to 14 miles of road reconstruction would occur within 500 feet of LFH (Listed fish species habitat), and up to 160 miles of roads would be maintained within timber sale contract areas annually (Table 4. Appendix A, USDI FWS 2025). These roads would be placed on abandoned roads with limited adjustments to accommodate modern logging systems. Project activities could last at least 30 years, so how many times would these roads be closed and then opened again during this period to conduct thinning activities? I am concerned about repeated impacts to downstream aquatic systems from conducting road-related work over

the 30 years of the project, in these sensitive watersheds that have extensive areas of unstable soils prone to failures and landslides.

NEPA
Other than on page 1 in the paragraph above it, there is no other mention of NEPA (National Environmental Policy Act) in the DEA planning guidance.

The proposed project would conduct thinning stand treatments over 30 years and spread forest-wide over an extensive area within the 1.72 million-acre MBS. Instead of having one EA that covers the full 30 years, it would be more reasonable to conduct a series of EAs to cover 10-year periods, or less, to be more site specific, provide more frequent public involvement, and better reflect environmental changes (floods, wildfires, landslides, etc.) during the 30-year period.

Draft EA (DEA) Comments
I have concerns about the poor track record of having virtually no road maintenance conducted on the MBS over the last 10-15 years, and the lack of adequate funding for required staff with technical skills to conduct the numerous tasks that are identified in the Project Design Criteria (Appendix B) for this project.
Appendix A lists at least 96 tasks to be completed by resource specialists reviewing proposed units, logging systems, road work, etc., including: Wildlife Biologist - 10; Fisheries Biologist -10; Soil Scientist - 18; Hydrologist - 8; Fuels Planner - 6; Archaeologist - 6; Botanist - 4; Landscape Architect - 7; Recreation Specialist - 15; Transportation Planning - 6; and Engineering - 6.

Appendix B lists at least 203 different MBS enforcement tasks that will be required for the project preparation and implementation: Botany and Invasives - 16; Heritage - 7; Soil, Water & Fisheries - 71, Fire, Fuels, and Air Quality - 15; Wildlife - 58; Scenery -9; and Recreation - 27. Many of these tasks are assigned to contract administrators, timber sale administrators, project administrators, and numerous specialists (engineers, hydrologists, soils, etc.). How is the MBS going to get adequate funding to provide staffing to accomplish these tasks for this proposed project?

NFMA
There is no mention of NFMA (National Forest Management Act of 1976) in the DEA planning guidance. All plans must comply with provisions of NFMA and requires using Mt. Baker-Snoqualmie National Forest Land and Resource Management Plan (USDA FS 1990) and the Northwest Forest Plan (USDA FS and USDI BLM 1994 for planning guidance.

Mt. Baker-Snoqualmie National Forest Land and Resource Management Plan (USDA FS 1990)

Forest-wide Standards & Guidelines
As planned, this project allows treatment activities within the RRs, and no-cut buffers, many of which are within, or adjacent to, naturally unstable soils and unstable banks and may not comply with the following Forest-wide Standards & Guidelines (S&Gs).

Soil, Air, Water & Riparian Areas
Soil Resource (Page 4-117)
Numbers 1, 2, 6-8.

Water Resources and Riparian Areas (Pages 4-118 to 4-120)
Numbers 2-5, 8-10, and 12-13.

Fish Habitat Management (Page 4-126)
Numbers 1 and 4.

Threatened, Endangered, and Sensitive Species (Pages 4-127 to 4-129)
Number 2, 3, 5, 6 and 10.

A good recent MBS example is the NF Stillaguamish LA Project, where timber stands to be thinned (variable density thinning) were shown on project area maps. When overlayed with soil stability (Soil Resource Inventory) maps that were provided, many of the units were on, or immediately adjacent, to unstable areas with a Moderate and High risk of instability. A significant amount of unstable soils in the proposed NF Stillaguamish LA Project area have a high risk of failures and damage that could result from the proposed timber stand thinning and road-related activities for the project, especially in the valleys of Deer Creek, Little Deer Creek and Higgins Creek and upper NF Stillaguamish River areas. On the soils maps there is a significant amount of "Unstable & Very Unstable" (red) and "S8 Soils" (purple) shown in the Deer Creek, Little Deer Creek, Higgins Creek, and middle to upper NF Stillaguamish River portions of the project area, with many located immediately adjacent to potential project stands (commercial & non-commercial).

These areas have a considerable amount of deep, unstable, glacial lake deposits, till and outwash soils and this instability is caused by a combination of steep slopes, fine textured plastic subsoils, and restrictive drainage, where natural deep-seated failures frequently occur, and are greatly accelerate by management activities (Snyder and Wade 1970).

Many of the PIA watersheds (Fig. 1) contain similar areas with deep glacial soils and deep glacial lake-deposit soils (Lacustrine) which are generally highly erosive and unstable as well as deep, unstable soils occurring on steep toe-slop and midslope drainages. These concerns should be taken seriously.

Appendix H
As a result of a forest-wide watershed condition analysis,19 watersheds were rated as being in an unacceptable condition and 51 in an acceptable condition (Appendix H in the MBS LRMP, USDA FS 1990). Most of these unacceptable watersheds (80%) were found on the more geological sensitive north end of the MBS (Table 3, Appendix H). These subwatersheds that were analyzed (Tables 2 & 3), called Allocation Zones in Appendix H, are very similar to the HUC 12s in the PIAs for the FWT Project.

The process used by the MBS to complete its hydrologic cumulative effects analysis consisted of a two-step process: 1) Watershed Sensitivity Analysis looking at watershed condition factors and placed watersheds into three risk categories (I, II and III) by increasing degree of risk and 2) Watershed Condition Analysis, which further examined the stream channel conditions and upslope conditions for each watershed and based on the above conditions, whether category II and III watersheds were in an acceptable or unacceptable condition.

After the watershed sensitivity analysis, it was determined that an additional more site-specific, analysis of Category II and II watersheds was necessary and organized individual District ID teams to conduct the watershed condition and method or constraint analysis for Category II and II watersheds. The analysis and discussion separated the upper watershed (1st and 2nd order streams) from the lower watershed (3rd and 4th order streams). They evaluated present and past in-channel stability, streambank stability, status of large woody debris, and channel. The team also looked at upslope conditions by reviewing past harvest rates, road density and condition, presence of landslides, amount of unstable soils, and stability to revegetate and recover.

The Appendix (H-38) states as follows:

"Section 208 of the Clean Water Act and Section 319 of the Water Quality Act of 1987 are the legal precedents that most affect forest management because they address nonpoint source pollution. The Region has established some guidelines on how to comply with those water quality requirements.

1. Requirements of the Clean Water Act will be met by applying Best Management Practices. (See FSM 1561.5, R-6 Supplement 48 (8/79), agreement with the State of Washington).

2. Within the concept of Best Management Practices, cumulative effects should be addressed and impacting activities scheduled and dispersed, when water quality might be unacceptably impacted. This is particularly important for high-risk areas where management activities have been or might be concentrated over a short period of time.

3. Within the bounds of the above direction, Forest should address water quality in their analysis in the manner most appropriate given their information base and particular conditions.

Guideline 2 above is of particular concern on the MBS because of the occurrence and frequency of management activities in watersheds having a large amount of unstable soils."

The concern on many of the more sensitive watersheds on the MBS is that dispersing management activities, and state-of-the-art BMPs, are not adequate to avoid unacceptable adverse hydrologic cumulative effects. It appears in some such cases such things as reducing future outputs or foregoing outputs for a period of time may be necessary."

Appendix H (H-42) states "It is the intent of the Forest to continue to fine-tune many of the assumptions we made in this programmatic level of analysis." It is not apparent that much, if any on-the-ground monitoring, has been done by the MBS since 1990.

Based on the direction in Appendix H, it appears that as proposed, the FWT Project would not be following these water quality requirements, especially in RRs areas in the PIA, in the 19 watersheds identified in Table 3 that have been identified as being in an unacceptable condition and being high risk.

Northwest Forest Plan (NWFP) & Aquatic Conservation Strategy (ACS) Objectives
According to in the ROD S&G's NW Forest Plan (USDA FS & USDI BLM 1994) watershed analysis will be an on-going, iterative process that will help define important resource and information needs (USDA FS 1995). As watershed analysis (WA) is further developed and refined, it will describe the processes and interactions of all applicable resources.

Since the 1990's, when most of the WA's on the MBS were completed covering all HUC 12s for the FWT Project (Kelley USDA FS 2025), many land management activities and habitat changes have occurred in this project area, as well as downstream private and state lands in these watersheds, making these watershed analyses badly out of date and in need of update, revision, or amendment, that reflect these changes. Even with the addition of Watershed and Aquatic Resource Assessment Analysis and Proposal Development for Whole Watershed Scale Projects (WARA) and the Watershed Condition Framework (WCF), this still does not meet the ACS Objectives for watershed analysis. In addition, this project involves thinning stands of trees located in RRs and to actively manage roads (temporary and system) in and near RRs over a period of at least years 30 years.

Since these WA's were completed, ESA federal listing of threatened species status of Chinook (1998), Bull Trout (1999), and Steelhead Trout (2003), has occurred. In addition, external watershed partner monitoring results, changing management conditions, wildfires, and reoccurrence of large flood events from 1995-1996 and into the 2000's has occurred. These management activities should have been included in an updated watershed analysis for the project area.

For example, the NF Stillaguamish LA EA and specialist reports, did not appear to have used much of the Deer Creek or North Fork Stillaguamish watershed analyses, which is the whole idea of a watershed analysis, one of the principal analyses for implementing the Aquatic Conservation Strategy (ACS) set forth in the Northwest

Forest Plan (USDA & USDI 1994).

Condition-based management (CBM)
The DEA on page 6, states that "Utilizing condition-based management (CBM), if all parameters described below are met, then implementation may proceed:
*Stands located in land use allocations (NWFP) and management areas (LRMP) allowing commercial timber harvest.
*Any forested stands less than 80 acres of age at time of harvest.
*Even age stands regenerated following a harvest or other disturbance that developed as an even-aged single layered stands.
*Overstocked and structurally simple stands lacking species diversity."

In addition, CBM is mentioned in the "Consistency Request for the MBS NF FWT Project" letter to justify increasing the allowable harvest tree diameter from 20" to 26" DBH within select LSR stands (Submitted by Sarah Thibeault and Kevin James on November 2025 in the on-line project file) states "For the purpose of this condition-based (CBM) EA, the PIA is defined as previously managed stands under 80-years of age located where the MBS land and resource management plan, as amended by the NWFP, allows for commercial timber harvest." The analysis for this effort addresses 10% of the nearly 650,00 acres of LSR across the MBS NF.

The use of CBM in this DEA, and as we have seen in previous MBS EA's (SF Stillaguamish LA Project, NF Stillaguamish LA Project and NF Nooksack LA Project), seems to be used by the USFS to cut corners by collecting less on the ground data and extrapolating existing data in order get around NEPA compliance by allowing proposed treatments to be aligned post treatment. It appears that there is a significant amount of on the ground work that needs to be done before actual treatments can be determined and concern about the lack funding and staffing to complete these tasks.

Resource Specialist Reports
Hydrology
The Hydrology Resource Effects Analysis (Kelley 2025) indicates that there is little potential for the proposed action alternative to have long-term adverse effects on the geomorphic, hydrologic, or riparian characteristics and aquatic habitats in affected watersheds. However, there is at least the risk of local adverse effects from thinning treatment-related activities that are located in, or near, RRs, considering the existing high risk conditions in many of these watersheds due to a combination of factors glacial geology, steep topography, road failures, poor road maintenance, landslides, extensive logging history, significant history of rain-on-snow flood events, combined with expected climate change impacts.
Page 1 references the completed MBS Watershed Analysis list in Table 15 in Appendix A. As discussed above in the NMFP and ACS sections, these watershed analyses are out of date and in need of update, revision, or amendment, that reflect these changes. Even with the addition of WARA and WCF, this still does not meet the Aquatic Conservation Strategy (ACS) Objectives for watershed analysis.
Page 2. Table 1. Displays resource elements, indicators, measures, threshold for significance and source for this information. However, the source information provided does not show how, and where, the data was collected and analyzed for the PIA.
Page 4. Watershed Condition Framework. Table 2 displays watershed condition class, indicator attribute, attribute measure, and source for the metrics. However, there are no dates shown for these data sources. For example, "aquatic surveys data" hast no survey date or who completed the surveys.
Page 4. Paragraph 3. States "MBS has very few streams with Clean Water Act 303(d) listings" and said "It should be noted that the State of Washington has not yet reviewed most streams on the MBS" and "that the MBS has many stream side roads which create instream issues." Thus, we do not have good data about sediment, turbidity and temperature on MBS streams and rivers. For example, there are indications that several streams in Deer Creek and NF Stillaguamish River area are not meeting water quality standards. Also, Finney Creek, an important Skagit River tributary, was listed for temperature in 1998 (USDA FS 1999, Nichols, and Ketcheson

2013).

Page 5. Table 3. Shows watershed condition framework and ratings for categories but does not show how data was used for the PIA.
Pages 6-9. Figures 1-4. Show color coded water quality conditions across the WCF HUC 12. These maps are nice for an overall general look but they do not include any river or stream names within these subwatersheds, so it is very difficult, if not impossible, to tell which watershed is which.
Page 10. Describes WARA as incorporating geomorphic and ecological principles found in exiting watershed and aquatic resources restoration planning to be applied at varying spatial scales and cites five different references and a Draft report from 2015 (USDA FS 2015). It refers to Figures (very generalized maps) 5, 6, 7 and 8 and Table 18 in Appendix A. It is not clear what data sets and time frames these figures and Table 18 are based on.
Page 11. Last paragraph states "for full HUC 12s the road densities for MBS fall well below the 12% roaded condition for most watersheds. This is due to the high amount of roadless and wilderness conditions per HUC 12 on the MBS. However, near stream areas, as within the 300-foot stream buffer, the roaded areas, for many HUC 12s are approaching or are above 12% roaded condition. Further, nearly all HUC 12 subwatersheds on the MBS have more than 30% of roads within 300 feet of streams for any given HUC 12 subwatershed, with an average of 54%." The concern is that even though there are some unroaded areas in each HUC 12, where there are roads, they have a high density. Many of these areas are located along streams and rivers where they can have negative impacts to the aquatic habitats.

Page 12. Tables 5-7. Do not show where these data came from and how they were collected?

Table 5. Under the Rationale for 8-12% roaded approaching hydrological concern ranking criteria, it states "Roads missing from this database are a hydrological concern given their condition is unknown. The number of failed culverts and severe road surface erosion on unclassified and undocumented roads are unknown and are present. These roads need to be considered in these rankings." This indicates that the MBS does not have all the data it needs to make accurate road condition rankings within 300 feet of streams.

Tables 6 & 7. Data from a number of HUC 12s are missing from the analysis so the analysis is not complete.

Page 13. Last paragraph states "Current road densities in HUC 12s listed in Table 9 are likely contributing to instream flow and sediment conditions, challenging NWFP ACS objectives." This is a serious concern.

Page 25. Key Desired Conditions for Water Quality and Aquatic Habitat lists 5 specific standards and criteria. Who is going to make sure that these are being met and does the MBS have the proper staff and funding to accomplish this?

Page 27. BMPs. How is the MBS making sure that these BMPs are being met? Will there be adequate staffing to do this?

Page 28. Paragraph 3 states "Roads are a large contributor of the WCF indicators and although there are generally much lower road densities on federal lands than on non-federal lands, the WCF Road and Trail Condition indicator shows 48 out of 119 subwatersheds are rated either Fair (FR) or Poor (NF), and shows 87 out of 119 are Fair (FR) or Poor (NFP) for the Aquatic Habitat Indicator, in which stream-side roads contribute to these WCF ratings." This is very concerning, especially about the impacts on RR and aquatic habitats.

Page 29-30. Table 9. Shows many HUC 12 Indicators and ratings. Out of 29 HUC 12s, 15 have medium HUC road density scores. Lower Greenwater River has a High score. All 29 have High scores for high % road area in 300-foot buffer, and % roads within 300 feet. These poor scores and ratings for so many HUC 12s is very concerning and indicates that many of these HUCs are not in very good condition.

Soils
Page 2. Methodology. States "The gridded Soil Survey Geographic (gSSURGO) Database was used to determine the types of soils present within the project area (USDA Natural Resource Conservation Service, 2017). This soil survey will be field verified as appropriate prior to project layout and implementation. Field surveys will be conducted using Forest Soil Disturbance Monitoring Protocol (FSDMP) and R6 Soil Quality Standard definitions were used to determine detrimental soil conditions."
This reference is not included in the References Cited section.

Why was the extensive soil mapping conducted by Snyder and Wade (1970) not referenced? These soil maps that were ground-truthed, identified unstable and S-8 areas across the MBS, and were used extensively by MBS project planning for many years. If there is a better method it should at least be explained why this mapping system is no longer used.

Pages 4-5. Table 2. Land Management Consistency. Identifies 9 tasks. Does the MBS have the staff and funding to properly conduct these tasks?

Silviculture
Page 1. Methodology. States "For this analysis, 10 reference stands, were selected from recent timber sales or NEPA projects across the forest that contained Common Stand Exam (CSE) data." It is not clear as to how well these few reference stands reflect stand conditions in the rest of the PIA?

Fisheries
Page 4. Incomplete and Unavailable Information. 1st paragraph states "Not all fish-bearing perennial tributaries have been sampled for the presence or absence of various species. Those unsampled streams represent a data gap, which can be addressed as part of project implementation through both modeling and field verification." Will the MBS have the staffing and skills to do this?

Pages 8-10. Riparian Reserves and Standards and Guidelines. List 17 tasks. Does the MBS have adequate staff and will it get funding for enough staff to complete these 17 tasks?

Pages 12-13. MOU with Washington Department of Fish and Wildlife (WDFW). The last MOU was updated and signed in 2017. It does not appear that the MBS consults with WDFW for on the ground projects that involve impacts to fish and wildlife species.

Pages 32-41. Table 3. Road Density derived effects analysis metrics in watersheds on the MBS. How were these metrics determined? Other than a generalized framework reference to the WCF.

Pages 56-57. Consultation & Coordination. Two critical state agencies are not even mentioned. WDFW, which manages the fish and wildlife species that live on the MBS and WDNR (Washington Department of Natural Resources), which manages the state and private forest lands adjacent to the MBS in Washington.

References Cited
Kelley, J. B. 2025. Forestwide Thinning EA. Hydrology Resource Report. Watershed Program Manager USDA Forest Service, Mt. Baker-Snoqualmie National Forest. December 2025. 82pp.
Nichols, R.A, and G.L. Ketcheson. 2013. A two-decade watershed analysis approach to stream restoration log jam design and stream recovery monitoring: Finney Creek, Washington. Journal of the American Water Resources Association (JAWRA). 1-18.
Palardy, C. 2025. Forestwide Thinning EA. Silviculture Report. Forest Soil Scientist. USDA Forest Service, Mt. Baker-Snoqualmie National Forest. December 2025. 22pp.
Snyder, R. V. and J.M. Wade. 1970. Mt. Baker National Forest Soil Resource Inventory. USDA Forest Service,

Pacific Northwest Region, Portland, OR. September 1970. 278pp.
Thibeault, S. 2025. Forestwide Thinning EA. Silviculture Report. Silviculturist. USDA Forest Service, Mt. Baker-Snoqualmie National Forest. December 2025. 17pp.
USDA Forest Service (USDA FS) 1990. Mt. Baker-Snoqualmie National Forest Land and Resource Management Plan and FEIS. (Including Appendix H). US Department of Agriculture, Forest Service, Seattle, WA.
USDA Forest Service (USDA FS) 1995. Ecosystem analysis at the watershed scale. Federal guide for watershed analysis. Revised Aug. 1995. Version 2.2. Regional Interagency Executive Committee and Intergovernmental Advisory Committee representing many federal and state agencies and tribal councils. Regional Ecosystem Office, Portland, OR. 29pp.
USDA Forest Service (USDA FS) 1995. Canyon Creek Watershed Analysis. 1995. Mt. Baker-Snoqualmie National Forest. US Department of Agriculture, Forest Service, Seattle, WA.
USDA Forest Service (USDA FS) 1996. Deer Creek Watershed Analysis. May 1996. Mt. Baker-Snoqualmie National Forest. US Department of Agriculture, Forest Service, Seattle, WA.
USDA Forest Service (USDA FS) 1999. Watershed Analysis Finney Creek/Lower Skagit River. Mt. Baker Ranger District, Mt. Baker-Snoqualmie National Forest. US Department of Agriculture, Forest Service, Sedro Woolley, WA.
USDA Forest Service (USDA FS) 2019. Pacific Northwest Region Project Environmental Assessment. Forest Service Pacific Northwest Region, Portland, OR. June 2019. 113 pp.
USDA Forest Service and USDI Bureau of Land Management (USDA FS & USDI BLM). 1994. Record of Decision for Amendments to the Forest Service and Bureau of Land Management Planning Documents within the range of the Northern Spotted Owl. Portland, OR.
USDC NMFS. 2025. Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion, Conference Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Consultation for Timber and Routine Activities on the Western Washington Restoration Collaboration Zone. July 23, 2025. WCRO-2023-00999. 359pp
USDI Fish and Wildlife Service (FWS). 2025. Biological Opinion: Timber and Routine Activities on the Western Washington Restoration Collaboration Zone. March 19, 2025. FWS/R1/2023-0096058. 791pp.
Vacirca, R. 2025. Forestwide Thinning EA. Fisheries Resource Report. Forest Fisheries Program Manager. USDA Forest Service, Mt. Baker-Snoqualmie National Forest. December 2025. 53pp.

Sincerely, D. Brady Green