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January 12, 2026

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Submitted via Project Portal on Forest Service Website
https://www.fs.usda.gov/r06/mbs/projects/68852

RE: Forestwide Thinning Treatments Project -Mt Baker-Snoqualmie National Forest, Project 68852, Draft Environmental Assessment

Dear Forest Supervisor Uloth,
On behalf of the Washington Chapter of the Sierra Club, we appreciate the opportunity to submit comments to Mt Baker-Snoqualmie National Forest regarding the content of the proposed Forestwide Thinning Treatments Project -Mt Baker-Snoqualmie National Forest, Project 68852, Draft Environmental Assessment, dated December 2025.

The Washington State Chapter of the Sierra Club includes over 100,000 members and supporters, working to protect communities and the planet. With over 3.5 million members nationally, the Sierra Club has the largest membership of all environmental public advocacy groups in the United States. We are the oldest engaged and enduring grassroots environmental organization in the United States.

Members of the Washington Chapter have had a long history of working to protect federal lands within the Mt Baker-Snoqualmie National Forest (the MBS) dating back to the North Cascades Study of 1965, the North Cascades Act of 1968, The Alpine Lakes Wilderness Study and Land Area Management Act of the 1972 and 1976, the Mt Baker Land Use Study of the 1970's, and the RARE (Roadless Area Review and Evaluation) I and II studies during the 1970's. We commented on the Mt Baker-Snoqualmie Land and Resource Management Plan Draft EIS and Final EIS of 1990. More recently, we participated in the development of the Northwest Forest Plan (NWFP) of 1994 and its subsequent implementation, including several timber sales prepared pursuant to its direction on this Forest.

For context, and to demonstrate the Sierra Club, WA Chapter's familiarity with MBS projects initiated by the US Forest Service (the FS), here is a list of submitted Pubic Comments, as well as a list of areas of significant interest to the Sierra Club:

- List of Sierra Club, WA Chapter, comment letters on previous MBS projects:
    - 2017 Darrington/South Fork Stilly.
    - 2021 - 2022 North Fork Nooksack, Glacier Creek and Canyon Creek.
    - 2022 Middle Fork Snoqualmie/ Pratt River
    - 2022-2023 The Finney Block/North Fork Stilly.
    - 2023-2025 Carbon River area and east.
    - Other MBS comment letters: Tenas Creek; Dead Horse Creek

- MBS Areas with substantial participation and interest from Sierra Club, WA Chapter:
    - The Greater Alpine Lakes Area. Particularly the South Fork Snoqualmie/I-90 Corridor; the US2 Corridor, and the Beckler
    - Played a lead role in the development of the Wild Sky Wilderness designation.
    - The Alpine Lakes Wilderness Addition and Middle Fork Snoqualmie and Pratt Wild and Scenic River legislation of 2014
    - Provided comments on the Comprehensive River Management Plan for the Middle Fork Snoqualmie and Pratt River
    - Hansen Creek Vegetation Management EA, 2015
    - Snoquera Landscape Analysis Project EA, 2017
    - the Lower Taylor and Quartz Creek.
    - The Cascade River.
    - Baker River.

We have reviewed the Forestwide Thinning Treatments Project Draft Environmental Assessment, December 2025 (the "Draft EA"), and supporting documentation, and offer comments on the issues described below.

We start with an extensive discussion of mapping concerns, and our requests for an EIS. We also request disclosure of prioritization of projects over the 30-year lifetime of the project, and we request monitoring of implementation and compliance of the projects over the 30-year lifetime of the project. We also comment on specific sections of the EA and the proposed management actions described in the EA and in some of the Specialist Reports.

Background

- The MBS is and has been a recreation forest where timber production has played a minor role in the last 40 years+
    - MBS is Emerald Jewel of Puget Sound and our spiritual backyard

- Current MBS cut has averaged 7 mmbf since FY 2020.

- This cut volume is less than 2% of all cutting in the five western Puget Sound counties: Whatcom, Skagit, Snohomish, King and Pierce Counties. The remaining 98% of the cutting in those counties is from either State land or private lands

- In 2022, direct timber supplied less than 0.4% of all employment in these counties

- Timber is a very minor part component of the economy of these five counties and of any other parts of WA State, whereas the MBS is a major part of our collective well-being. Economic arguments by the FS should not be part of the justification for the proposed Project.

- The MBS is primarily a recreation forest.

Overview Points on the project, as drawn from the EA:

- The MBS extends from the Canadian Border south to next to Mount Rainier National Park, and extends more than 140 miles north to south
- **Project Potential Implementation Acreage** (defined as "PIA" in the EA): 190,000 acres
- Project **Reference Stand Acreage**, for ten unidentified Reference Sites on the MBS: 106,000 acres
- **Annual cut of project**, 1,200 acres, as restricted by the Western Washington Restoration and Collaboration Zone Programmatic Biological Opinions (USDI FWS and USDC NMFS, 2025). The USDI FWS Biological Opinion is referred to here-in as the "WWRCZ". S*ee page 36 of the WWRCZ* regarding the annual cut limitation to 1,200 acres for the MBS.
- **Term of project**: 30 years, as contemplated by the WWRCZ, *see page 6 of the WWRCZ*
- **The project will be Variable Density Thinning, with fuels treatment solely for 'activity fuels' (a/k/a 'slash')**
- The **counties** in which the project is proposed: Whatcom, Skagit, Snohomish, King, and Pierce Counties
- The **Ranger Districts** in which the project would occur: Mt Baker, Darrington, Skykomish, and Snoqualmie Ranger Districts

TABLE OF CONTENTS OF ISSUES ADDRESSED IN THIS COMMENT LETTER:

V. The EA And The Hydrology Report Failed To Address The Timber Harvest Restrictions Imposed By Appendix H, The Hydrologic Cumulative Effects Analysis, To The 1990 Feis To The 1990 Mt Baker-Snoqualmie Land And Resource Management Plan.

VI. Comments on Wild and Scenic Rivers

VII. Silviculture Issues

VIII. Decision Points for Variable Density Thinning

IX. Economic Comments

X. Conclusion

Please find our detailed comments on the Draft EA as follows.

I. VAGUENESS IN THE EA AND IN THE SPECIALIST REPORTS FAIL NEPA REQUIREMENTS

A. Lack of detail and of specifics so unable to identify any of the specific sites for treatment, whether in 2026 or thereafter to 2056.

i) the language from the EA clearly acknowledges that the FS does not have the ability to identify any specific sites for the MBS Forestwide project, for the duration of the project. See the following examples:

- page 7 of the EA:

> *"Actual implementation of projects within the analysis area will be contingent on meeting the conditions and project design criteria enclosed* [i.e. Appendix A the Thinning Implementation Process and Appendix B Project Design Criteria].[bracketed wording added for context] *Given that conditions change over time,* ***it is not possible to map specific and exact locations for the life of the project, as areas available for treatment will change over time.*** *Potential Implementation Areas (PIA) within the analysis area* ***are presented for visual purposes only to represent areas with high likelihood*** *of meeting all conditions required for implementation over the life of the project (Figure 1)."* [bolding and underling added for emphasis]

The following quote, on page 25 of the EA, is relevant as it amplifies on the vagueness issue, and lack of specification and choice of targeted units for treatment, by suggesting that commercial thinning could occur outside of PIA, although there is no further discussion of this possibility, adding to the vagueness of the project:

> '*Although* ***commercial thinning could occur in places outside of those potential implementation areas*** *if qualifying site conditions are met'.* [bolding and underlining added for emphasis]

See also Page 6 of the EA which is relevant as it states that 1,200 acres will be chosen annually over 30 years. See also Page 32 of the EA which states that the PIA is approximately 190,000 acres, from which the 1,200 acres annually will be chosen. *The FS is targeting 190,000 acres (i.e. the PIA) to winnow down to 36,000 acres, to further reduce to 1,200 acres annually.*

There is no discussion in the EA or supporting specialist reports as to the methodology or criteria, aside from the 4 criteria called Decision Points listed on page 6 of the EA, that will be used in order to 'down select' from the PIA area to the noted 36,000 acres for treatment. As discussed later in this Comment Letter, those Decision Points are insufficient for identification of the sites for the purposes of the 'hard' look required under NEPA of the FS decision makers, and insufficient under NEPA for public comment and analysis. In addition, the EA should clarify if the Decision Points apply to the 190,000 acres or to the 36,000 acres.

ii) In addition, the Maps provided in the EA and in the Specialist Reports are too vague and of unreadable scale and insufficient supporting detail to understand the location of selected thinning units. None of the maps provided in the EA, nor the Hydrology Report Maps, nor Reference Stand maps and stand characteristic tables in the Silviculture Report, nor lists of watersheds in the Hydrology Report nor lists of trails or campsites in the Recreation Report, have any specificity as to either location, name, acreage, species of trees, ages of trees, timing of treatment or priority of timing for conducting the project treatments.

The map (i.e. Figure 1) on page 2 of the Silviculture Report, purportedly showing locations of the ten (10) Reference Stands, however merely shows location in a very broad -brush manner, showing an approximate location within ten small areas of the entire Mt Baker-Snoqualmie National Forest, in a rudimentary and imprecise fashion, with no identifying information as to precise location, size, acreage, stand characteristics, etc.

Neither does merely giving the *identification number* of a Reference Stand, and then providing stand characteristics as in Table 1 of the Silviculture Report, provide either the Public or the FS Decision Maker sufficient information so as to take a 'hard' look and determine the environmental impacts of the proposed treatment.

There is *no site-specific information as required for compliance with NEPA.*

B. The Sierra Club reviewed the conditions of Order On Motion For Summary Judgment And Motion To Strike, of the United States District Court, Eastern District Of Washington regarding the Colville NF, in the case of Alliance For The Wild Rockies vs. US National Forest et. al., Case No 2:24-CV-157-RLP, dated September 16, 2025 (referred to herein as "*Order on Motions")*

The Sierra Club ***urges and demands that*** the following concerns raised by the Court in that litigation be applied to the EA for the FWT of the entire Mt Baker-Snoqualmie National Forest:

1) The Order on Motions Required that the FS provide Detailed Maps Under NEPA

The FWT maps are too vague and incomplete to ensure a 'hard look' at the environmental impact of implementing the Variable Density Thinning treatment, and to enable the public to meaningfully comment.

The Forest Service should have identified **site-specific project areas** and acreage; as well as identification of watersheds, rather than what the Forest Service did identify as a suite of **potential project areas** and watersheds to be winnowed down from 190,000 acres to 36,000 acres over the 30-year duration of the Project.

Quoting from the *Order on Motions*:

Page 2 of Order on Motions

'Specifically, the record shows a violation of NEPA because the maps identifying areas for commercial timber harvesting are too vague to ensure a hard look at the impact of harvesting and public comment.'

page 9 of Order on Motions

'the Project maps, designating treatment types, are impermissibly vague; and the Service failed to take a hard look at Project impacts regarding road construction/reconstruction, wildlife, and cumulative projects.'

page 18 of Order on Motions

'Project maps specify the locations for commercial and non-commercial treatments. See AR 00340-43. However, they do not further identify the specific treatments [sic] locations within each of these two restoration categories.'

2) In addition, the Order on Motions restricts the use by the FS of Condition Based Management

The EA on page 4 includes four (4) 'decision points' where the target site must meet **all** of the criteria, utilizing condition-based management:

"Decision Points for Variable Density Thinning

*"…As the environment is not static, the assumption is that conditions are likely to change over time. Utilizing **condition-based management**, 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 years of age at time of harvest.*
- *_Even aged stands regenerated following a harvest or other disturbance that developed as an even-aged single layered stand.*
- *_Overstocked and structurally simple stands lacking species diversity."*

However, as stated in the Order on the Motions:

Page 19

> *"Rather than provide specific locations for treatment types, the Project employs a harvest plan known as condition-based management. AR 01213-14. Condition-based management is defined as a flexible strategy "that allows predetermined treatments to be aligned, prior to implementation, with current conditions on the ground." AR 01214. It "involves developing treatments based on pre-identified management requirements but deferring specific decisions which treatments will be applied in particular locations until the Forest conducts pre-implementation field reviews." The Project identifies pre-defined "decision points" to determine locations of particular treatments at the time of implementation. AR 01213-14"*

Page 20

> *The Ninth Circuit has expressed concerns about "excessive reliance on condition-based management." North Cascades,136 F.4th at 829. Nevertheless, the court has approved condition-based management when the area subject to condition-based management is "fairly small" and the Service provided "extensive mapping" which consisted of "unit-by-unit maps of the maximum effects of each treatment" type. Id.*
>
> Note: citation above is to *North Cascades Conservation Council v. U.S. Forest Service*, 136 F.4th 816, 824 (9th Cir. 2025)

Page 20

> *Here, there is no unit-by-unit mapping of the maximum effects of each treatment type. Instead, the maps developed by the Service only identify locations for the two different restoration types—commercial and noncommercial.*

Page 20 and 21:

> *'the EA's reliance on condition-based management renders it too vague to satisfy the requirements of NEPA.'*

In the FWT project of the MBS, the EA does not include maps even identifying actual locations for treatment, let alone any maps of unit-by-unit mapping, and the EA's reliance on condition-based management "*renders it too vague to satisfy the requirements of NEPA."*

C. <u>It appears that the FS has significant amounts of information regarding the Reference Stands, yet does not provide in a manner that identifies with specificity the possible units for cutting:</u>

- see the detail in the Recreation Report:

- pages 29 – 35, which is Appendix A of the Recreation Report, on specifically identified **trailheads and campgrounds** that would be impacted if a Reference Stand were used, as well as

- Table 8 Designated WSRs and Table 9 Eligible for Designation Rivers, Table 10 **Eligible Rivers within Reference Stands; as well as without limitation**

- See also page 30 of the Recreation Report: *"**The Mt. Baker Ski Area** is immediately adjacent to Reference Stands".*

- See also extensive detail in the Hydrology Report as to specific watersheds.

Why would the FS spend so much time developing that data if the FS was not going to use such data in the EA? And why go to the effort of developing that data ***but not providing*** name, location and acreage of Reference Sites?

D. Additionally, both the EA and several of the Specialist Reports state that there is incomplete and unavailable Information for specific issues, as follows by way of example:

i. In the EA page 25; see also Fisheries Report page 4:
"… 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. Another data gap that occurs involves the current status of physical aquatic habitat parameters for non-measured streams and those drainages where measured unit habitat information (USDA 2024) is greater than 10 years old."

ii. In the EA page 32; **see also Wildlife Report page 3**

"Incomplete and Unavailable Information

Much of the MBS remains unsurveyed, or surveys are out of date, for several species. Observational reports, citizen science, and informal survey information are used in their place if available. In their absence, if habitat is present, and the analysis area includes the range of the organism, presence is assumed."

iii. in the Recreation Specialist Report Page 3

"GIS data is subject to error. Spatial information on recreation resources and settings may, in some cases, be missing or incomplete. Although useful at a broad Forest scale, recreation data layers may have discrepancies and be subject to different ranges of accuracy… For this reason, it is used to broadly inform and note potential impacts to recreation resources and recreation access, not describe site specific impacts or site-specific PDCs."

See also comments below regarding the Hydrology Report for additional data gaps. All of the foregoing statements of incomplete and unavailable information on the project argue for failure under NEPA, as well as the need for an EIS, as further discussed in **Section II** of this Comment Letter.

E. There is only one Alternative listed in the EA in addition to No Action choice. The Sierra Club ***urges and demands a Second Alternative*****.** NEPA analyses must consider a range of reasonable alternative actions and thoroughly assess direct, indirect, and cumulative environmental effects of the proposed alternatives. **The Sierra Club urges and *demands* that the FS provide a Second Alternative for consideration in the EA.**

F. The Plan fails certain Administrative Procedure Act requirements. For all of the reasons stated above, the Forest Service's decision to approve the Project and conduct timber sales without disclosing site-specific actions or taking a "hard look" at the effects of those actions is **arbitrary and capricious** because it fails to discuss the direct, indirect, or cumulative impacts, including past, present and reasonably foreseeable future impacts of the proposed action, including but not limited to the impacts on the NSO, the MAMU and all other T&E Species populations of animals, fish, and plants, of the take that would result from timber harvest and fuels treatment, as required under NEPA. The EA should be set aside.

G. The Sierra Club *urges and requests* that the Forest Service follow the directives, by analogy, of the Eastern District of the Federal Court, and redo the EA, or provide an EIS and provide the necessary detail on this project so as to comply with NEPA. As suggested in the Section II of this Comment Letter, providing the necessary detail and hard look analysis with an EIS will strengthen the FS's compliance with NEPA.

II. NEED AN EIS FOR THE PROJECT FOR THE FOLLOWING REASONS:

1. The EA does not provide any cumulative effects analysis of the entire Project as impacting the entire Mt Baker-Snoqualmie National Forest, i.e. past, present and ongoing and reasonably foreseeable state and local and other federal projects.

The Sierra Club **urges and *demands*** that the FS conduct a cumulative effects analysis of the entire project, being the entire Mt Baker-Snoqualmie National Forest, to be produced and delivered prior to signature of any Decision on the project.

The FS should not be able to conduct such a large project with no detail, and limit to merely an annual notice of next year review and comment without providing an opportunity for objections and administrative appeals.

The Sierra Club ***urges and demands that*** If there is no NEPA compliance before a Final Decision is signed, there needs to be *site-specific NEPA compliance at the time of each annual Section 7*

analysis for public comments and decision makers' obligation to take a hard look at environmental impacts.

2. <u>There is no indication in the EA of any Section 7 effects analysis of either:</u>

a) the *entire Mt. Baker – Snoqualmie National Forest; or*

b) the 190,000 acres from which 36,000 acres will be chosen to be treated during the project,

rather than merely the suggested annual Section 7 analysis of the following year's individual 1,200 acre cut.

The Sierra Club **urges and *demands*** that a Project Wide Section 7 analysis covering both the entire MBS and the 190,000 acres be conducted prior to commencing the first year of the project, including without limitation the cumulative effects analysis on the entire population of NSO or MAMU in the MBS, or other species of animals, fish or vegetation. It appears in the EA that the only Section 7 analysis would be conducted on an annual basis, pursuant to the annual WWRCZ review, for the following year's next proposed 1,200 acre annual cut.

3. <u>Environmental impact on NSO and MAMU as well as Canada Lynx, Wolverine, Bull Trout and other listed fish, and numerous flowers and plants</u>.: see Wildlife Report and the EA at pages 34. The FS acknowledges, in the EA at page 34, that:

*"The project **May Affect, Likely to Adversely Affect** the Marbled Murrelet and Marbled Murrelet Critical Habitat, Northern Spotted Owl and Northern Spotted Owl Critical Habitat".*

The FS states that other species will not be as significantly impacted by the Project:

o "The project May Affect, Not Likely to Adversely Affect the Mount Rainier White-tailed Ptarmigan, California Wolverine, and Gray Wolf.

o The project is expected to have No Effect on Canada lynx, grizzly bear and yellow-billed cuckoo. "

However, the EA and the FS need to analyze the cumulative impacts on NSO and MAMU of not only the FWT but also other federal projects as well as of state projects, and as well as private projects under Habitat Plans.

The Sierra Club ***urges and demands*** that such cumulative impact analysis on the NSO and MAMU of other ongoing and continuing federal, state and private projects, reasonably foreseeable, be included in the EA/EIS. Such analysis would be in addition to the WWRCZ Section 7 analysis.

4. In addition to the NSO and MAMU, **Puget Sound Spring Chinook were listed as a threatened species under the ESA in 1999 and Steelhead were listed as threatened under the ESA in 2007.** Some combinations of these runs are, or were historically present, in most of the key watersheds on the MBS. This includes the Nooksack, Skagit, Sauk Green, Stillaguamish, Skykomish and their major tributaries.

See the Fisheries Report, at page 43-44

"the following ESA determinations were found:

*It is my determination that the Forest-wide Thinning Project **may affect and is likely to adversely affect** Puget Sound (PS) Spring Chinook salmon and its designated critical habitat for Alternative 1.*

*It is my determination that the Forest-wide Thinning Project **may affect and is likely to adversely affect** PS steelhead trout and its designated critical habitat for Alternative 1.*

*It is my determination that the Forest-wide Thinning Project **may affect and is likely to adversely affect** PS bull trout and its designated critical habitat for Alternative 1."*

Chinook salmon are the primary food source for the Southern Resident Killer Whales (SRKW-Orca) which frequent Puget Sound as well as migrate up and down the west coast. Chinook salmon make up from 50 to 100 percent of the diet for SRKW depending on the season (time of year). The SRKW were listed as endangered under the ESA in 2005. Protecting and recovering Chinook salmon populations in the Puget Sound is critically important for this population of orca and the MBS has an important role to play in that recovery.

In addition, the United State Government on behalf of the American people has a responsibility to faithfully implement our treaties with Tribal Nations. The 1855 Stevens treaties with Puget Sound tribes guarantee the tribes who signed the treaties the right to fish on their "usual and accustomed grounds" and to harvest up to 50% of the harvestable numbers of fish. We are not meeting our treaty rights responsibilities to assure there are adequate numbers of fish to harvest.

The Sierra Club ***urges and demands*** that the FS in the EA specifically protect water quality and cooler water temperatures as those conditions in all of the MBS watersheds, rivers and major tributaries are a critical part of maintaining critical habitat and suitable spawning and rearing conditions. Maintaining the integrity of the riparian zones is essential to this as well as controlling erosion from roading and logging.

The Sierra Club ***urges and demands*** that such cumulative impact analysis on the Puget Sound Spring Chinook and Steelhead and Bull trout of not only the FWT but also other ongoing and

continuing federal, state and private projects, reasonably foreseeable, be included in the EA/EIS. Such analysis would be in addition to the WWRCZ Section 7 analysis.

The Sierra Club refers the reader to the comments on the Hydrology Report found in **Section IV** of this Comment Letters for further concerns about maintaining the integrity of riparian zones and limiting erosion from roading and logging.

5. Need to proactively protect the Northern Spotted Owl (NSO) and the Marbled Murrelet (MAMU) and their critical habitats in LSR; and limit cutting of trees in LSR.

Background regarding the two species:

a) NSO:

"*The Northern Spotted Owl (*Strix occidentalis caurina*; hereafter, Spotted Owl) was listed as an Endangered Species in Washington by the Washington Fish and Wildlife Commission in 1988, and was listed as a Threatened Species under the Endangered Species Act (ESA) in 1990."*
https://wdfw.wa.gov/publications/01752

"As discussed in our recent 12-month finding and supporting documentation, the subspecies is in precipitous decline and warrants reclassification as endangered (85 FR 81144 (/citation/85- FR-81144), December 15, 2020)—"

See Federal Register Printed Page 62656 of
https://www.federalregister.gov/documents/2021/11/10/2021-24365/endangered-and-threatened-wildlife-and-plants-revised-designation-of-critical-habitat-for-the

See also the following for the critical importance of maintaining habitat for the NSO:

"Additionally, recent scientific findings and our December 15, 2020, finding (and supporting species report) that the northern spotted owl warrants reclassification to endangered status ***emphasize the importance of maintaining habitat*** *in light of competition with barred owls." [emphasis added]*

See Federal Register Printed Page 62652
https://www.federalregister.gov/documents/2021/11/10/2021-24365/endangered-and-threatened-wildlife-and-plants-revised-designation-of-critical-habitat-for-the

In addition, the FS has failed to amend all forest LRMPs in the region of the NWFP to require the protections of Critical Habitat as set forth in the 2012 Critical Habitat Rule, as amended in 2021, and the 2011 Revised Recovery Plan*. See Federal Register Printed page 62652 at above link:*

"…the USFS has not yet revised its forest plans and applied the recommendations of the 2011 Revised Recovery Plan nor expressly taken into consideration the 2012 critical habitat designation into these plans …"

b) MAMU

"*The species was listed as threatened under the U.S. Endangered Species Act in 1992 in Washington, Oregon and California… Due to continued population decline of the species, it was listed as endangered by the Washington Fish and Wildlife Commission in 2016."* See page 4 of https://wdfw.wa.gov/sites/default/files/publications/02627/wdfw02627.pdf

With regard to habitat requirements for both the NSO and the MAMU, one looks first at the growth habits of trees in LSR. See page 7 of the REO Consistency Request dated November 2025:

"LSR Desired Conditions
The time needed for natural ***development from an early seral stage to late seral or old forest stage*** *is estimated at 250-350 years within the Silver Fir Zone, 175-250 years for Western Hemlock Zone forests, and approximately 200 years for Mountain Hemlock Zone Forests to develop.* ***Old forest structure****, which likely provides the highest quality habitat for species associated with late seral or old growth forests due to the persistence and size of down logs, is complete at approximately 450 years old (pp. 26, USDA, 2001). Past timber harvesting created stands in younger age classes which are densely stocked, structurally simple and lacks the complex old forest structure needed as quality habitat for those species. The treatments proposed in this project are designed to* ***expedite development of desired structural characteristics to improve habitat capacity for northern spotted owls and marbled murrelets through variable density thinning*** *approaches that have been applied in other Late Successional Reserves on the MBS."* [bolding and underlining emphasis added]

However, such treatments in the project which might **'expedite development'** do not acknowledge the risks that NSO and MAMU face, nor include provisions which would facilitate earlier development of desired structural characteristics and the following concerns:

i) there is no recognition in the EA that the endangered species NSO and MAMU in particular do not have the survival time as species to continue in existence until even the most optimistic projections for natural development to late seral or old forest in the Western Hemlock Zone forests which require at a minimum 175 years, as stated above and quoted from page 7 of the REO Consistency Request. These species are endangered for many reasons including that their habitat is disappearing, and their population numbers are plummeting.

The FS cannot justify an argument that 175 years, for the trees to reach late seral or old forest, is worth waiting for, for the NSO and the MAMU. If the FS cannot provide habitat sooner within a time frame that would allow these species to survive let alone thrive, the FS needs to change how it is proposing protection of the species. *The NSO and the MAMU do not have time for smaller trees to mature and develop the characteristics of mature and old growth trees required by the NSO and the MAMU.* The populations are at risk now.

ii) if the FS truly supported protecting these species, it would have included in the REO Consistency Request, and in the EA and all Supporting Documents, strict provisions to retain out of all the 'dense' trees between 20" and 26" DBH in LSR sufficient numbers of those larger trees that would, with more light around them and less competition in the dense current plantation forests, likely sooner develop into late seral or old forest. Any such retained larger trees have the likelihood of reaching such late seral or older forest status significantly faster than trees less than 20" DBH which might be left after the proposed Variable Density Thinning.

See also on Page 7 of the REO Consistency Request:

> *"Although the full suite of conditions that develop in old-growth forests over long periods of time* ***cannot be expected to accelerate through a single thinning treatment****, some select characteristics (such as tree diameter, density, canopy structure, species composition, and vegetative cover) can be improved in the near term while others continue to gradually develop."*

The Sierra Club *urges and demands* that for **all project treatments in LSR:**

a) the FS does not cut all trees in LSR between 20" and 26" DBH; and

b) the FS retain sufficient number of trees in LSR between 20" and 26" DBH to establish and maintain foraging, nesting, roosting and dispersal critical habitat for both NSO and MAMU, as determined by independent nationally recognized biologists, and which would more quickly develop mature and Old Growth characteristics for NSO and MAMU, than would younger trees less than 20" DBH; and

i) the NSO and the MAUU need dense, closed canopy habitat and *35% density after cutting treatments does not meet the requirements for NSO and MAMU primary constituent requirements;* and

c) the FS remove only so much of the down wood in LSR as is required for operational safety, so as to meet the intent of REO Memorandum 694 (which Memorandum is described in the REO Concurrency Request) to permit cutting trees over 20" DBH so long as the wood is left behind to meet down wood requirements of Memorandum 964; and

d) the FS not cut trees in LSR if they are remnant, residual or island naturally growing mature or old growth trees or stand as directed in the NWFP Standards and Guidelines page C-44; and

e) whatever cutting is done in LSR must NOT increase the attractiveness of the site to Barred Owls, as Barred Owls should be excluded from MAMU and NSO Designated Critical Habitat; and

f) The FS conduct only ***non-commercial thinning*** *in* ***Designated Critical Habitat of each of the MAMU and the NSO****; and*

g) *the EA must be revised in Appendix B the Project Design Criteria, including but not limited those found on pages 87 and 88 of the EA, to incorporate all of the provisions in a) through f) above*.

6. <u>Issues with timing of WWRCZ annual reviews:</u>

The EA and Supporting Documents are ***inconsistent as to timing of analysis and preparation of the annual WWRCZ consistency reviews:***

i) see page 5 of <u>Wildlife Report</u>:

*"**<u>Effects during implementation</u>** will be analyzed and documented through WWRCZ and ARBOII programmatic consistency notifications and worksheets"*

ii) However, per page 61 of the <u>EA</u>: the WWRCZ review will be of:

*"**proposed** thinning units, prescriptions, road work, and other associated logging system items consistency with programmatic level effects on ESA listed species and their designated critical habitat and its Project Design Criteria (PDCs)."*

The Sierra Club ***urges and demands*** that the EA and Supporting Documents be consistent, and at a minimum the consistency review deliveries be as described on page 61 of the EA, so as to comply with the Section 7 obligations. The Wildlife Report needs to clarify that the consistency review by WWRCZ will be for *proposed work,* and thus prior to implementation, rather than the statement indicating that *'effects during implementation'* will be the subject and timing of WWRCZ review*. If however the intent in the Wildlife Report is for the WWRCZ reports to be for monitoring purposes after implementation, that should be clarified.*

For all of the reasons listed above, the ***Sierra Club urges and demands that an EIS be issued for the FWT project.***

III COMMENTS RE EA AND SUPPORTING DOCUMENTS:

1. The Sierra Club ***urges and demands*** that the FS provide the *following* additional maps**:**

- **A map showing overlay of NWFP LUAs, and the MBS LRMP merged Management Allocations**, of the entire MBS particularly since the LRMP Management Areas have specific requirements for the reduction of *activity fuels,* i.e. slash. The Land Use allocations to be shown must include Congressionally Reserved, Late Successional Reserves, Late Successional Reserves (LSOG), Administratively Withdrawn, Matrix, and Other along with all sub-categories that integrate NWFP LUAs and 1990 Forest Plan Management Area allocations as shown on "Darrington Ranger District Land Use Allocations" map, prepared by David Keenan, dated 23Feb2024.

- **A map showing overlay of IRAs with the LUAs and MAs of entire MBS,** *per the MBS map of IRAs from the 2001 FEIS, Volume 2 – Maps of Inventoried Roadless Areas, so that* the boundaries of IRA are clearly protected and no FWT occurs within IRAs.

- **Stand age maps** so as to identify:
    - boundaries of cutting units in stands less than 80 years of age and stand location on a map of usable scale.

2. The Sierra Club ***urges and demands*** that the FS identify in the EA all **targeted stands**, rather than merely showing the Reference Stands. As stated previously, the FS appears to have sufficient detail and data to identify the all stands which the FS intends to cut and treat.

3. The Sierra Club ***urges and demands*** that the GIS data sets, per the EA's Appendix A page 62, (that will be handed over from the Interdisciplinary Team to the Implementing Team) include in the layer of *Resource Exclusion Areas* the following information:

- an overlay of LSR stands under 80 years of age; and
- an overlay of Inventoried Roadless Areas; and
- an overlay of Matrix; and
- an overlay of LSR stands over 80 years of age; and
- an overlay of all other Resource Exclusion Areas.

See also **Sections VI, VII and VIII** below **for additional requested GIS and s details**

4. The Sierra Club ***urges and demands*** that, subject to the Sierra Club's ***prior discussion and prior requests made in Section II of this Comment Letter***, and prior to any decision making and prior to the implementation of the proposed project, the FS shall have received written **REO approval to cut trees in LSR that are 20" to 26" DBH**.

5. There is no discussion in the EA of **prioritization** of annual projects nor the criteria used to establish such a prioritization; is the treatment going to be implemented north to south (as had been proposed per the timetable for MBS watershed projects which was put on hold), or is there some other timing to be determined later but not addressed in the EA? The public needs to understand the prioritization so as to understand the impacts of the project. The Sierra Club ***urges and demands*** that such a prioritization schedule be added to the EA.

6. The Sierra Club ***urges and demands*** that the FS describe in the EA **how this Project overlaps,** in terms of annual cut, and in terms of cumulative impact, with the **following existing ongoing projects:**

- North Fork Stillaguamish Landscape Analysis Project, 2021
- Glacier Creek (North Fork Nooksack) *see below re Canyon Creek*;
- Tenas Creek Restoration Project August 2022;
- Carbon River Landscape Analysis Environmental Assessment, April 2025;
- Canyon Creek (North Fork Nooksack); North Fork Nooksack Vegetation Management Project Revised Final Environmental Assessment, April 2022

If the FS has already gone into a certain project area, **the Sierra Club urges and demands** that the FS must not go in again to stands that were previously commercially thinned, for example but not limited to:

- South Fork Stillaguamish VEGETATION MANAGEMENT PROJECT, 2017
- Finney
- Hansen Creek Vegetation Project Environmental Assessment, July 2015
- Snoquera Landscape Analysis Project, 2017

Further analysis and detailed discussion on the relationship between the FWT project and all prior timber sales that are not complete, as well as previously completed thinned sales, is provided in Section VII below.

7. Are there Legacy or remnant old-growth conditions in PIA?

See Page 36 of EA:

> *"**Legacy or remnant old-growth conditions** are present and distributed throughout the analysis area; however, most trees are under 80 years in age in PIA."*

See also page 18 of the EA, which is inconsistent with page 36:

> ***"All** potential implementation areas included in this analysis have been harvested in the past 80 years and **subsequently replanted** and left dormant since."*

Due to this inconsistency, the ***Sierra Club demands:*** that a) the EA be clarified as to how much *legacy or remnant old-growth conditions* are present in PIA; and that b) Exhibit B to the EA, the Project Design Criteria, be revised to include a prohibition on cutting any legacy or remnant old-

growth trees or stands in the PIA. ***The Sierra Club urges and demands*** that the EA must be revised to ensure consistency with NWFP direction as it relates to the treatment of remnant old-grow stands per NWFP Standards and Guidelines, page C-44.

8. PIA and Reference Stand analysis; missing identification of cutting units

The EA states that there are 10 reference stands for the entire 190,000 acres of PIA. The EA states on page 13 that there are 106,375 acres in the 10 Reference Stands that meet thinning criteria.

The Sierra Club asks: Why did the FS not provide in the EA and the Specialist Reports specific identification of the Reference Stands, when we know that the FS has stand area information for the entire Forest that the USFS could provide so as to fully locate Reference Stands let alone other stands identified in the Specialist Reports? Such information is necessary for the Public and the decision makers to develop informed, accurate and complete analyses.

The Sierra Club ***urges and demands*** that the FS identify which of the PIA and Reference Stands the FS currently expects to include for cutting and treatment and time phasing for these activities over the life of the project.

9. For the Scenic Report, the Sierra Club **urges and *demands* that on page 7, the description for MA 17 be revised to have a "*Retention VQO",*** rather than a lower VQO of partial retention or modification, **in areas of LSR with remnant Old Growth or Mature trees or stands** The NWFP direction on page C-44 of the S&G protects remnant OG stands. See:

> *"The distribution of old-growth stands throughout the landscape is an important component of ecosystem diversity, and plays a significant role in providing for biological and structural diversity across the landscape. Isolated remnant old-growth patches are ecologically significant in functioning as refugia for a host of old-growth associated species, particularly those with limited dispersal capabilities that are not able to migrate across large landscapes of younger stands."*

10. The Sierra Club ***urges and demands*** **that the FS include in EA and in all Supplemental Reports that the project is compliant not only with the statutes, rules and regulations and policy documents that are listed already in the EA, but that the project also in compliance with all of the following:**

a) the 2001 Inventoried Roadless Area Rule; and
b) the Forest Service November 2000 Final Environmental Impact Statement for Roadless Area Conservation, Volume 2, Maps of Inventoried Roadless Areas, *see page 201 for the MBSNF*; and
c) the MBS LRMP including without limitation its Standards and Guidelines.

11. The Sierra Club ***urges and demands*** that the FS add to EA's Table of Contents **a listing of Figures and Tables,** with page locations.

12. The Sierra Club notes on page 28 of EA there is discussion of several assumptions regarding treatment acreage, including the following:

> *"… c) the amount of thinning activities in a watershed in any given year would range from 1-5% of the total HUC12 area."*

The Sierra Club ***urges and demands*** that the watershed acreage which will be treated, however, not exceed the limitations on treatment the amount recommended in the Hydrology Report, including but not limited to discussion on page 31 of the Hydrology Report. S***ee also Section V below of this Comment Letter for more in-depth discussion of issues and concerns with the Hydrology Report***.

13. In addition, the Sierra Club ***urges and demands*** that the EA expand its discussion on ***whether or not the thinning activities will be implemented outside of watersheds***, and if that will be the case, the EA must be expanded to include all assumptions that the FS is utilizing for treating acreage outside of watersheds, similar to the assumptions included on page 28 of the EA for treatment in watersheds. The Project planning area boundary extends beyond the watershed boundaries, so assumptions and descriptions for areas outside of watersheds must be described in detail.

14. The Sierra Club ***urges and demands that*** Appendix A be revised to include full NEPA compliance on annual scheduling of following year's cut, including the following additional documents delivered to the public for public comment as part of the annual review process of the following year's suggested cut:

- copies posted of all specialist reports and maps from personnel listed in Appendix A, as well as
- a copy of the USFW and NMRS signoff on Section 4.5.2 compliance (page 102 of WWRCZ Bio Op); being the report described on page 61 of EA:
  "NMFS and USFWS will provide MBS project level concurrence upon completion of the Level 1 consistency review process", as well as
- *the NMFS and USFWS consistency review itself.*

The Sierra Club also ***urges and demands*** that there be an opportunity for members of the Public to Object to any review by the deciding official prior to implementation, as well as an opportunity for administrative appeal processes before any decision is implemented.

15. The Sierra Club ***urges and demands*** that the EA **clarify that post thinning fuel treatments are limited to properly handling *activity fuels also known as slash***. See the following pages of the Appendix A to the EA, as well as pages of Appendix B to the EA, and pages of the Fire, Fuels and Air Specialist Report:

First, see page 65 of the EA, being within Appendix A to the EA, for description of the job of Fuels Planner during the project which includes the following:

- "*Determine fuels treatments for units (besides PDC requirements of reducing fuels within 200 feet of the edge of any road that will remain open to the public)." [underlining* emphasis added]

This bulleted description actually includes two separate components of the Fuels Planner's job [note: numbering and underlining is added for emphasis]:

1) "*Determine fuels treatments for units*
2) (besides PDC requirements reducing fuels within 200 feet of the edge of any road that will remain open to the public.)"

Adding the job of '*determine fuels treatment for units'* is much broader than merely determining treatment for activity fuels/slash as described in the EA. We note that the use of word 'fuels' without any modifier, would include all types of fuels standing or down, dead or alive, rather than merely *'activity fuels'* or '*slash'*, which is the only type of fuels treatment described in the EA.

We cannot reconcile this job requirement with the only statement on fuels treatment in the body of the EA, found on page 7, which states the following:

> *"Post-Thinning Fuels Treatment*
> ***Slash from commercial thinning*** *contributes to ground and surface fuels and has the potential to increase future fire intensity and severity.* ***Reducing post-thinning slash*** *would help reduce the risk of fire intensity.*
>
> *One or more of the following treatments may occur following commercial harvest: hand or machine piling and then burning, chipping, or masticating; lop and scatter; broadcast burning; or removal via hauling away." [*emphasis added]

See also page 48 for photos of improper and proper treatment of slash, as well as the text at page 14 of the EA:

> *"The proposed fuels treatments aim to reduce the fire risk associated with* ***post-thinning slash load."***

The Sierra Club ***urges and demands*** that the word '*fuels*' be replaced with '*activity fuels or* slash' in all instances in the EA and in both of Appendix A and Appendix B. Otherwise, the FS is proposing significant fire treatment that is not described in the EA, to which the Sierra Club would object.

In addition, the PDC FFA4 requirement is narrower than the parenthetical description on page 65 of the EA. PDC FFA4 includes reducing activity fuels "*within between 100 and 200 feet of the edge of any road that will remain open to the public"*; the Sierra Club **urges and *demands*** that the narrower description in PDF FFA4 on the reduction of activity fuels should be added on page 65 of the EA description of the jobs of the Fuel Planner.

Such reducing activity fuels or slash piled or otherwise lying on the ground by various methods including prescribed fire, between 100 and 200 feet from open public roads should also be described in the EA on page 10, given the significant visual impacts as well as environmental impacts; the public needs to know with a detailed description that such fuels treatments will be included the Project.

Furthermore, the Fire, Fuels and Air Quality Specialist Report addresses only *activity fuels or slash, and* does not cover other types of fuels to be treated with fires in this Project.

If the FS does not mean to include post thinning of fuels other than activity fuels/slash, **then The Sierra Club *urges and demands that* the Fuel Planner's job description, as found in** Appendix A, at page 65, be revised as shown below and marked by the following additions in *bold* and the following deletions marked by *strikeout* to the following bullet point:

> *"Determine **activity** fuels treatments for units (besides PDC requirements of reducing **activity** fuels **at least 100 feet and up to 200 feet interior of the roadside boundary of the unit** ~~within 200 feet of the edge~~ of any road that will remain open to the public)".* [bolded words are added; struck out words are to be deleted]

In addition, the Sierra Club ***urges and demands*** that the FS ***remove PDC FFA13 - 15 or revise each of those PDCs*** by adding that the PDCs ONLY apply to Activity Fuels/Slash; not to any other fuels as no other fuels are contemplated to be burned.

16. Prescribed Fire; the Fire, Fuels and Air Quality Specialist Report focuses on activity fuels and prescribed fire; *however, prescribed fire is not described in the EA as part of the treatments.* The EA does not include any description of fuels treatment other than the removal of slash, as discussed above, on page 14 of the EA.

As written, the EA does not describe if, when and where prescribed fire would be utilized either in LUAs or in MAs, yet prescribed fire is covered in detail in the Fire, Fuels and Air Quality Specialist Report. The Fire, Fuels and Air Quality Specialist Report on page 11 states that prescribed fire will be utilized for the Action Alternative.

If the FS in fact intends to use prescribed fire in the project other than for activity fuels/slash, then the Sierra Club ***urges and demands*** that the EA must be revised to include a description of when and where and how prescribed fire will be utilized. Even with Condition Based Management, the FS needs to lay out how it will likely use prescribed fire.

In addition, since the MBS is a forest on the wet and moist side of the Cascades, the Sierra Club states that such fuels treatment is not appropriate or necessary as the prescriptive fire treatment and is more applicable on the dry side of the Cascades. Note, that the Sierra Club ***urges and demands*** the FS not to include post thinning fuel treatment in the MBS except in so far as it ONLY included the treatment of activity fuels/slash.

The Sierra Club **objects to using prescribed fire for other than removing activity fuels/slash, and *urges and demands*** that the EA and the Fire, Fuels and Air Quality Specialist Report be revised to reflect that there is only limited use of prescribed fire in this project to be applied solely for removing activity fuels/slash**.**

17. The Fire management provisions in the LRMP and LRMP's Standards and Guidelines: The Fire, Fuels and Air Quality Report references the requirements of the MBS LRMP and the LRMP's Standards and Guidelines for fire management, as provided for each Management Area. By way of example, see Page 4-143 through Page 4-149 of the LRMP, for descriptions of Fuel Management Objectives for the different Management Areas. Each of the Fuel Management Objectives covers how Activity Fuels shall be addressed.

The Sierra Club ***urges and demands*** that the descriptions of the required fire treatments in the LRMP and S&G, for both LSR and Matrix, should be articulated in the EA. Since the EA instead utilizes the Land Use Allocations, i.e. LSR and Matrix, from the NWFP, the EA needs to be amplified with the previously requested maps providing an overlay of i) the NWFP LUAs, with ii) the MBS LRMP MAs so that all interested parties can accurately evaluate the impacts of how activity fuels will be handled. The Sierra Club ***urges and demands that the EA*** be revised to include such a map overlay.

The Sierra Club acknowledges that the LRMP was adopted in 1990, and that with the passage of time, the recommended fire prevention intensity for each of the MAs might have increased from the recommended levels, depending on the MA, but then again the fire prevention intensity Levels might not have changed, given the wet and moist environment and ecosystems of the MBS, and the Sierra Club ***urges and demands*** that the FS continue to follow the 1990 LRMP.

18. The Sierra Club ***demands*** that the FS list on page 58 of the EA that the FS has consulted with **WDFW re fish and wildlife**, including state listed Endangered Species such as NSO and MAMU. The FS did not include WDFW in the list of consulted agencies as listed In the EA and in Appendix A, nor listed as consulting except re Fisheries Biologist; however, WDFW is referenced in the PDCs in multiple places, so it appears to have been an oversight that WDFW was not listed as a consulted agency.

19. The Sierra Club ***urges and demands s*** that the FS obtain clarification from the USFWS whether or not the WWRCZ Timber and Routine Activities Biological Opinion, signed by USFWS on March 19, 2025, is meant to apply to ***all*** forest projects in the MBS, the GP and the OLY that are issued after the effective date of the WWRCZ, *with a cumulative restriction on each*

forest for the next 30 years that each forest can ***only cut the amounts listed in the WWRCZ.*** By way of example, for Upland thinning – Stands Under 80 Years the MBS is restricted to a maximum of 1,200 acres annually and the GP is restricted to a maximum of 3,600 acres annually (see page 36 of the WWRCZ).

If that is the case, then the Carbon River Project in the MBS, for which the final decision was issued on December 17, 2025, which has a duration of approximately 15 years, and total acreage of approximately 22,734 acres and for which Variable Density Thinning treatment would likely occur at the rate of 1,000 acres per every decade (see page 12 of the Carbon River Silviculture Report) and Variable Retention Harvest Implementation would occur at the rate of approximately 500 acres eligible for treatment every decade (see page 14 of the Carbon River Silviculture Report), then, if we understand the WWRCZ correctly, the amount of the Carbon River Project's annual acreages would need to be deducted, under the WWRCZ, from the 1,200 acres contemplated to be annually cut for the MBS Forestwide Thinning Project.

The Sierra Club ***urges and demands that the FS obtain written clarification from the USFWS of the application of the terms and provisions of the WWRCZ to the Forestwide Thinning project and cumulative restrictions on all other current and future projects in the MBS, and that such written clarification be posted on the project website.***

20. There is no specialist report on the **impact of Climate Changes** on this 30-year project, including that climate change might necessitate changes in the terms and conditions of this project. Aside from acknowledgement that climate warming will impact the likelihood of increased risk of fire, the EA does not discuss climate change.

The Sierra Club ***urges and demands*** that the FS acknowledge the scientific validity of climate change, such as how it might exacerbate the adverse impacts of roads, increase the impact of logging on wildlife and wildlife habitats, prevent the regrowth of vegetation that the FS claims will increase forest diversity, or call into question the Project's goal of changing forest structure.

21. There is no project wide monitoring either in the EA or in the Project Design Criteria. In the EA, the only discussions of monitoring are in the Project Design Criteria found in Appendix A., which are not project wide. The Sierra Club ***urges and demands that*** each of the Specialists under Appendix A should have a **monitoring obligation as part of their dut**ies for the duration of the project, to monitor for compliance with terms of Project and compliance with the Project Design Criteria.

The Sierra Club also ***urges and demands*** that there be a designated Monitoring specialist for the entire project, both in terms of geography and in terms of duration.

A Monitoring Plan must be described and developed. Any plan with a 30 year duration must include monitoring and periodic reviews to establish efficacy of projects, in particular those designed to improve both terrestrial and aquatic habitat. Is the project "increasing structural diversity" and "building resiliency"? Given the project design and how it's carried out, are

conditions changing that result in lack of efficacy (ie climate change)? What are measurable parameters that can be used to chart the success of the program, or modify future projects if monitoring indicates they are not currently successful?

Note that monitoring of Forest projects is a requirement of the Northwest Forest Plan (NWFP), in which the Standards & Guidelines specify:

> *"Monitoring is an essential component of natural resource management because it provides information on the relative success of management strategies. The implementation of these standards and guidelines will be monitored to ensure that management actions are meeting the objectives of the prescribed standards and guidelines, and that they comply with laws and management policy. Monitoring will provide information to determine if the standards and guidelines are being followed (implementation monitoring), verify if they are achieving the desired results (effectiveness monitoring), and determine if underlying assumptions are sound (validation monitoring)."* (NWFP, Standards and Guidelines, p E-1)

Currently, there is no discussion of long-term post-project monitoring within the EA. The EA must be revised to add a monitoring plan for this project that would clearly describe how the post-project monitoring will take place, what will be measured and tracked, and how the forest will apply adaptative management to study the cumulative impacts of the project. The monitoring would include Implementation Monitoring, Effectiveness Monitoring and Validation Monitoring as described in Section E: Implementation, of the NWFP Standards & Guidelines. It would also describe when, why, and how the Forest Service will make changes to subsequent watershed projects as a result of such monitoring.

22. Adaptive Management Review and Reporting / 5-year Supplement

Given the number of years to complete the project, we request that there should be periodic reviews of the entire project, both as implemented to date and as contemplated still to be completed. In addition to the requested monitoring, incorporating information learned into the next stages of completion of the project is critical in all projects, but particularly in a project such as this one with a 30-year lifetime.

For these reasons, the project should include provisions for a **Supplemental Environmental Assessment** to be prepared every 5 years throughout the course of the project life cycle. This Supplemental Environmental Assessment should review the effectiveness and validation monitoring that has been completed, consider the efficacy of the project components, review the change in Forest conditions that have occurred over time, analyze the financial impacts of the project, and take into account public comments regarding these elements.

Adaptive Management is an integral part of long-term forest management, and must be proactively designed in order to be successful. A 5-year Supplemental Environmental

Assessment would allow the Forest Service to study and consider the impacts of their actions, and change course where the need arises.

We urge the FS to include an Adaptive Management component, as described above, to the monitoring and compliance that we have requested, ***provided, however***, that the ***Sierra Club urges and demands*** that the FS include as part of the Adaptive Management process

1) providing the public with the requested Supplemental Environmental Assessment, including information and a detailed report identifying the suggested changes, and

2) providing the public with an opportunity for full NEPA (*as it was legally constituted as of December 31, 2025 rather than any subsequently modified set of laws, rules and regulations)* review process for public comment, including 30 day opportunity to comment, on any suggested management changes, as well as the opportunity for objection prior to any decision making.

23. EA: page 22 refers to four watersheds on "Table 9 on page 32 of the Hydrology Report lists HUC 12s that have specific road-related concerns (e.g. % Road Area by 300ft Buffer > 12%)" ***The Sierra Club urges and demands that t***he entirety of Table 9 from the Hydrology Report should be included in the EA. Table 9 includes all 29 watersheds with excess road-related impacts, as the current listing of only 4 of them in the EA suggests that there are only 4 watersheds with these issues. See the following **Section IV** for further discussion on these 29 watersheds.

24. EA, page 7, Transportation Systems:

While the EA mentions the Aquatic Conservation Strategy (ACS), this Transportation System section fails to mention the overarching NWFP direction for road systems in Key Watersheds. The NWFP S&G's for road management state on page B-19: *"Reduce existing system and nonsystem road mileage outside roadless areas. If funding is insufficient to implement reductions, there will be no net increase in the amount of roads in Key Watersheds."*

- The ***Sierra Club demands*** that the EA sections and related specialist reports addressing Transportation be revised to reflect the explicit direction for road construction and reconstruction in Key Watersheds that is found in NWFP Standards and Guidelines (B-19), including the hard requirement "…no net increase in the amount of roads in Key Watersheds…" will occur as a result of this FWT project.

25. EA, page 14, Direct and Indirect Effects (fire risk): The EA states on page 15: "Overall, thinning combined with fuels treatments would reduce fire risk, but would not eliminate the dynamic effects of fire risk influenced by weather." Also see Table 7, page 15.

While there may be a theoretical reduction of fire risk, the real question is not whether there is "risk reduction," but how large the risk reduction is induced by this FWT project, when set against the overall risk of fire when all factors are accounted for, including weather.

The ***Sierra Club urges and demands*** that the EA be revised to include a numerical assessment of fire risk reduction produced by this FWT project when all stands on the MBS less than 80 years old are considered.

26. EA, page 22, Affected Environment and Existing Conditions: The EA States

> "Current WCF ratings show that 111 out of 119 subwatersheds are "Functioning Properly" (Good), 8 are "Functioning at-Risk" (Fair), and none are "Not Properly Functioning" (Poor). However, roads are a significant factor; 48 subwatersheds are rated Fair or Poor for the Road and Trail Condition indicator, and 87 for the Aquatic Habitat Condition indicator, primarily due to stream-side roads."

While Current WCF ratings show most of the watersheds are functioning properly and few are currently at-risk, we believe that the large reductions in the Forest cut timber volumes provide an explanation for current watershed quality ratings. Our research shows that MBS NF cut and sold data for the recent period 2020-2024 the average annual cut volume from the MBS NF was 7.1 mmbf/yr. While during the period 1979-1988 the cut averaged 229.5 mmbf but then declined to 8.6 mmbf/yr during the period 1993-2021.

- The Sierra Club **urges and demands** that the EA be revised to include a discussion of the relationship of WCF ratings to Forest cut levels and related road construction and reconstruction. The EA should discuss WCF ratings in terms of relative timber harvest levels on the Forest.

27. EA, page 23, Proposed Actions and Expected Effects, Project Assumptions: The EA states: *"Up to 6 miles of temporary roads may be constructed annually and will be decommissioned after use; no new permanent NFS roads will be created."*

We support the concept of (1) limiting the extent of temporary roads to no more than 6 miles; (2) decommissioning all new temporary roads over the 30-year time frame of the project. The project should make every effort to utilize existing landings and minimize the development of new landings.

- The Sierra Club **urges and demands** that the EA be revised to require non-system roads within the scope of the project also be decommissioned.

- The Sierra Club **urges and demands** that that the EA be revised to show as a requirement that no new permanent NFS roads be created. This requirement reflects the explicit direction for road construction and reconstruction in Key Watersheds that is

found in NWFP Standards and Guidelines (B-19), including the hard requirement "…no net increase in the amount of roads in Key Watersheds…"

28. EA, page 24, Information Sources: The EA lists: "*US Forest Service, Region 6 Fish Distribution Database; Statewide Integrated Fish Distribution Database; US Fish and Wildlife Service and NOAA Fisheries published Designated Critical Habitat data; MBS corporate road and timber stand data."*

COMMENT: These noted sources contain critical information about the ecological impact of the FWT Project that must be made available to the public in a timely fashion in order that all implications of proposed action maybe understood.

- The Sierra Club **urges and demands** that USFS revise the EA to include maps including all of the following information:

    - all timber stand age locations in Matrix and LSR LUAs showing relevant stand age stratifications; and
    - all current road information including maintenance levels (ML-1 thru ML-5); and
    - USF&WS and NOAA Fisheries Designated Critical Habitat locations; and
    - Region 6 Fish Distribution Database; and
    - all LUAs and merged land use allocations.

These data must be made available to the public in a timely fashion.

IV. COMMENTS ON HYDROLOGY SPECIALIST REPORT; including need for updated WATERSHED ANALYSES:

The EA presents the results of the Hydrologic Analysis on page 23 of the EA. The Project Assumptions and Hydrologic Effects summaries presented here, and described in further detail in the Hydrology Resource Report December 2025 ("Hydrology Report"), are insufficient to determine the existing hydrologic conditions of the Forest or the anticipated effects of the FWT Project, and do not comply with the NWFP.

Climate Change

The Hydrology Report does not take into account the changing hydrologic conditions that will impact the Forest in the coming years due to climate change, with the exception of the statement that "Note, the anticipated warming trend of 2 degrees Celsius by 2040 will likely allow rain on snow events to occur at higher elevations" (Hydrology Report p 35). This note is clearly inadequate and must be expanded in a revised EA.

The impacts of climate change on the Forest Service's road system are already clear. The storm events of December 2025 caused complete washouts of the Suiattle River Road, as reported in

the Seattle Times (*Flood Slashes Through Road, Cuts Tribe's Link to Homelands*, January 11, 2026). The Times reports that a Forest Service assessment found not only the catastrophic 130-foot wide road washout that created a 70-foot deep ravine, but also a culvert blow out 10 miles further down the roadway and a roadway "partially collapsed into the Suiattle River." The sediment that is being carried into the Suiattle River due to these roadway washouts is going to cause immediate harm to the aquatic system, and is due to the fact that the roads themselves and the culverts are not designed and sized to withstand the increased flowrates that we will see from these precipitation events.

The USDA itself has reported that global warming is already having impacts on precipitation events in the Pacific Northwest:

(https://www.climatehubs.usda.gov/hubs/northwest/topic/atmospheric-rivers-northwest)

> "As human-caused climate change continues to warm the planet, the number of days that the western U.S. will experience atmospheric rivers is projected to increase. Atmospheric rivers are also expected to be bigger and more hazardous on average. As climate change warms the air and oceans, these storms will have more fuel to become larger and stronger because a warmer atmosphere can hold more moisture. Some research shows that they are expected to be 25% longer and wider, meaning more rain over more area for longer. Therefore, heavy rainfall and extreme winds caused by these rivers will increase. This also means that the number of atmospheric rivers that cause damage will increase."

This report published by the USDA continues:

> "Knowing how atmospheric rivers will increase in frequency and intensity with climate change is important for planning. *Understanding the future of atmospheric rivers will help in watershed planning. Adding climate change considerations into forest management plans, for example by replacing undersized culverts and removing unnecessary roads, will help decrease the negative effects of large storms and flooding on infrastructure*."[emphasis added]

The FWT EA project must be revised to take climate change into consideration, and follow the USDAs own recommendations to address the expected increase in storm intensity and duration by *replacing culverts and removing unnecessary roads.* It is not sufficient to "kick the can down the road" and claim that a future project will deal with this issue. The FWT Project is a 30 year project that will be updating and modifying the road conditions throughout the Forest. It is likely the only opportunity that these roads and culverts will have in the next 30 years to be addressed through upsizing culverts and removing unnecessary system roads. See below for additional comments regarding road network modifications.

Additionally, a full hydrologic analysis must consider these increased duration and intensity of storm events in the watersheds and assess their impact on the forest road system. It is not

scientifically supportable to ignore the impacts that are already being seen that are caused by changing climatic conditions.

Incomplete Analysis of Hydrologic Condition of Watersheds, NWFP ACS Objectives Not Met

We are concerned that hydrological analysis was limited to only roads. *"This hydrologic analysis focuses on both the short- and long-term effects of road use and maintenance associated with accessing the proposed treatments within the watersheds where the proposed activities may occur."* (Hydrology Report p 1). What about the changes to the upland terrestrial conditions that are contributing runoff? Steep slopes that could impact flow rate of runoff? Culverts that are currently causing issues in the watersheds? Areas of known flooding?

Also, the Aquatic Conservation Strategy Objectives listed on page B-11 of the NWFP, and on pages 22-24 of the Hydrology Report, are not being met. The Hydrology Report does not provide an analysis of current conditions adequate to demonstrate that these objectives can be met through the FWT Project. In particular, Objective #4 (maintain and restore water quality), and Objectives 5-7 (maintain and restore sediment regime, in-stream flows, and floodplain/water table) have not been demonstrated to be met. Again, a full hydrologic analysis would look at maintaining water quality (WCF Water Quality Indicator not accurate, see below), sediment regime (no sediment analysis has been done that includes "timing, volume, rate and character of sediment…" NWFP p B-11), or in-stream flow analysis (no flow rate analysis was done that includes "timing, magnitude, duration, and spatial distribution of peak, high, and low flows…" NWFP, S&G p B-11). The EA must be revised to provide answers to the questions that are raised above.

This is not a hydrological analysis, it is only a summary of roads. A full hydrological analysis would look at flow rates of streams, peak flow rates and duration of flows during storm events, as well as the specific conditions on the forest that are currently causing hydrological concern (e.g. culverts, unstable roads, steep slopes and connected drainage pathways), and would address the changes in these conditions that are expected as climate change occurs over the life of the project. Until data such as noted above is presented and analyzed, an adequate Hydrology Report has not been prepared. Despite this fact, the Hydrology Report states on page 32, "*The project is not expected to change current peak or base flows measurably from existing conditions with proposed treatment."* It is not possible for such a statement to be true if there have been no baseline measurements taken or presented, if a full hydrological analysis has not been done, and if the expected increases in intensity and duration of storm events are not accounted for and their effects evaluated.

- The results presented in this Hydrology Report cannot be presented as a full hydrological analysis, and any result implying that there will be "no impact" as suggested by the above statement must removed from the Hydrology Report and the FWT EA.

NWFP Aquatic Conservation Strategy (ACS) and Watershed Analysis Not Applied:

Watershed Analyses Not Incorporated:

Hydrology Report, p1: "See Table 15 in the Appendix for a complete list of NWFP Watershed Analysis on the MBS."

It is not enough to merely list the Watershed Analyses that were prepared for the MBS many of which were prepared over 25 to 30 years ago. The purpose of the Watershed Analyses is to gather information regarding the watershed that must be considered in planning projects within the watershed. This is clearly delineated in the NWFP:

> *"The information from the watershed analyses will contribute to decision making at all levels. Project-specific NEPA planning will use information developed from watershed analysis. For example, if watershed analysis shows that restoring certain resources within a watershed could contribute to achieving landscape or ecosystem management objectives, then subsequent decisions will need to address that information."* (NWFP, Standards and Guidelines, p B-21)
>
> *"Watershed analysis provides the contextual basis at the site level for decision makers to set appropriate boundaries of Riparian Reserves, plan land use activities compatible with disturbance patterns, design road transportation networks that pose minimal risk, identify what and where restoration activities will be most effective, and establish specific parameters and activities to be monitored*." (NWFP, Standards and Guidelines, p B-23).

Watershed Analyses are intended to be used as a tool in the development of projects, in order to implement the Aquatic Conservation Strategy as required by the Northwest Forest Plan. Without a review of *updated* [emphasis added] Watershed Analyses, this project does not "use the information developed from watershed analysis," and the Hydrology Report cannot come to the conclusion that the project satisfies the requirements of the NWFP ACS. Again, a listing of the titles of 20 to 35 year-old Watershed Analyses is not sufficient—a review of updated Watershed Analyses, with implementation of the recommendations of these analyses, must be done for this EA. The results of this review must be included in revised project documents.

- Review the updated Watershed Analyses, and present conclusions that consider the recommendations therein in the development of the FWT Project.

Watershed Analyses Out of Date:

Hydrology Report p1: *"Watershed analysis is required prior to management activities. Watershed analysis was done using the Aquatic Conservation Strategy (ACS) from the NWFP, covering all potential implementation areas under the proposed action*."

The Watershed Analyses that are listed in Table 15 of the Hydrology Report Appendix are out of date and not relevant to the *current condition* [emphasis added] of the Forest. Of the 23 analyses listed, 19 of them are over 25 years old, and all of them are over 19 years old. In order for these Watershed Analyses to have any relevancy to current conditions, the information contained within them must be current.

The NWFP requires that Watershed Analyses be updated:

> "As described elsewhere in these standards and guidelines, watershed analysis is an *ongoing, iterative process* [emphasis added]. Watershed analyses will expand as appropriate to consider additional available information, changing conditions and potential effects associated with long-term management issues and needed actions." (NWFP, Standards and Guidelines, p A-7), and
>
> in Figure B-2 "Redo based on monitoring, changing conditions, social values, or process knowledge" (NWFP, S&G B-22).

The conditions of the watersheds within the project area have changed over the last 20-25 years. Storm events, road washouts, timber cutting activities, and sub-standard maintenance are but some of the elements that have altered the hydrologic condition of the Forest since these Watershed Analyses were developed, and they do not represent the current condition of the forest. As such, they cannot be used in their current condition as a "contextual basis" for project development.

- Watershed Analyses must be updated prior to implementation of the FWT Project.

Watershed Conditions Framework (WCF)

The WCF is described as a "systematic assessment method…that scores and rates subwatershed condition" based on "metrics from WCF technical guide using best available data that is summed and averaged to produce an indicator score." (Hydrology Report p4)

The data and results from the WCF analysis raise additional questions:

WCF analysis is using only 3 of the 12 Indicators available for watershed analysis. What are the other 9? The Hydrology Report must explain why they were not all used. Since this analysis is only looking at 7 out of a possible 23 Attributes, such coverage may be deemed inadequate since the missing attributes are undefined.

- The Hydrology Report must be revised to list all Indicators and Attributes, including reasoning behind choice of using or not using particular Indicators and Attributes.

WCF Ratings shown are based on values for an entire HUC 12 watershed, which would skew heavily those HUC 12s that have Wilderness or IRAs, and would make them appear "healthier"

than the managed portions of the watershed actually are. This selective use of data makes this type of data analysis suspect, as it would dilute the impacts of negative conditions by spreading them over an entire protected area (e.g. Wilderness and roadless areas).

WCF Water Quality Conditions are also skewed as the Hydrology report states that the State of Washington has not yet reviewed most streams on the MBS regarding their 303(d) listings, so the data would appear to be irrelevant, as limited listings "can lead to possible higher ratings for the Water Quality indicator for WCF." (HR p4)

- This irrelevant data should not be presented as evidence of a "healthy" watershed, and the data should not be presented in Figure 1 of the Hydrology Report or Table 17 of the Hydrology Report as it incorrectly implies that the majority of the watersheds in the MBS are in a GOOD Water Quality Condition. If streams have not been reviewed, those watersheds should be shown in the data as "Not Reviewed", or this data should not be used at all.

WCF Aquatic Habitat ratings are based on outdated data. Table 2 in the Hydrology Report presents the sources for the data inputs into the WCF. Comments regarding the sources: "MBS LRMP" and "Aquatic Surveys Data (AqS)" are listed in the Hydrology Report on pages 4 and 5 as data sources for 4 of the 7 categories of watershed condition that are considered. The LRMP from 1990 (based on data from the 1980's) is now at least 35 years old. This information is not anywhere near current. Considering the 20+-year old age of the Watershed Analyses, this data is not a valid basis to develop a hydrologic analysis that is intended to last another 30 years.

- How old is the AqS? What is the AqS
- What current data is being used to validate the outdated data from the LRMP and Watershed Analyses?

The Indicator source data in Table 2 (Hydrology Report pp 4-5) lists Watershed Condition Framework (WCF) as a source for "Aquatic Habitat" and "Road/Trail Network".

- The Hydrology Report must be revised to clarify if the road density calculations (for both attribute categories presented) are based on the entire HUC12 watershed, as including Wilderness areas and unroaded areas (IRAs) can skew those data sets in a misleading fashion.
- The Hydrology Report must be revised to define where this data is being sourced from. WCF Technical Guide provided "the protocol for…[a] national assessment of watershed conditions" (Hydrology Report p 4) and WCF is a "systematic assessment method" (Hydrology Report p4), but it is not clear where the source data is coming from that feeds into the "ratings of conditions", in particular for the Road/Trail Network, as WCF is the sole data source for this Indicator. The Hydrology Report goes on to state that

ratings are based on metrics from the Technical Guide "using best available data," but again that data source is not presented.

Table 17 of the Hydrology Report shows the results of the WCF scoring. Column "Watershed Condition FS Area" rates as either "Functioning Properly" or "Functioning at Risk".

- Where is this ranking taken from, what is this based on? It does not track with subsequent column ratings, and lacks any scientific justification for a rating of watershed health.

WARA analysis

"The WARA model is better suited to discuss current effects quantitively than WCF, particularly regarding roads." (Hydrology Report p 10)

- If the WCF model is not an accurate gauge of actual conditions, then the WCF modelling method should not be used as it could give an inaccurate picture of the conditions within the watershed, in particular regarding road conditions. Please revise the Hydrology Report to remove (at the least) the Road/Trail Conditions indicator from the WCF Analysis and the results in Table 17 of the Hydrology Report.

Hydrology Report p 10: "WARA assesses the level of impact or impairment that roads pose to the watershed and aquatic resources and formulates restoration proposals".

- The Hydrology Report must be revised to clarify the restoration proposals that WARA presented. Please list the restoration proposals that were prepared by WARA, and discuss why these proposals are not included in the EA.

Please revise the Hydrology Report to answer the question raised above.

Hydrology Report p 11: The statistics regarding the roaded condition of the watersheds within the MBS are clearly presented in the Hydrology Report: "…nearly all HUC12s on the MBSNF have more than 30% of roads within 300 feet of streams for any given HUC 12 subwatershed, with an average of 54%", which is highly concerning considering that the area within these 300 foot buffers comprises an average of nearly 40% of the land area of all the HUC 12s (Hydrology Report p 11). These values are well above the 12% threshold presented through the ERA Analysis, which is noted as the basis for the roads analysis.

However, the Hydrology Report introduces a new "variable" as a ranking value in order to further describe those buffer areas within the subwatersheds that exceed the 12% threshold. This variable is presented obtusely: "…a roaded area condition within the 300-foot buffer was added as a method of presenting hydrological condition or concern if the buffer is approaching or above a 12% roaded area condition".

This new "variable" is then presented as alternately "% Road Area by 300ft Buffer" (Table 7) or "% Road Area* by MBS HUC12 300ft Buffer" (Table 18). Nowhere is the calculation for this value presented, nor is the scientific validity of this calculation/variable/ranking presented.

- Please revise the Hydrology Report to provide scientifically validated reasoning and results to explain what this new variable is and why it matters if you are trying to use it to describe the hydrologic condition of the watershed in a scientifically credible manner.

Rain on Snow

Aggregate Recovery Percentage (ARP) is used as a predictor of impacts due to reduced canopy cover post-harvest. MBS recognizes that "The lower values may take a few decades to fully recover, so rain on snow melt events are likely in reduced canopies" (Hydrology Report p 13). These rain on snow events lead to faster and higher peak flows, resulting in increased sediment transport locally, as well as increased flow rates downstream (and resultant issues with downstream flooding and erosion).

Hydrology Report p13 suggests that the areas impacted by the FWT will be low within the *average* HUC 12, so the resultant ARP will also have little impacts. It is not appropriate to make these assumptions based on an "average" HUC 12 for two reasons. 1) Much of the HUC12 total areas include Wilderness and/or unroaded areas, which skew the percentage of area impacted, and 2) Many of the roaded/thinned areas are within a 300 foot buffer around streams. The proximity to streams increases the likelihood that runoff will have a greater peak flow and a quicker response rate—the peak flows won't be attenuated by any overland or subsurface flow, and the sediment picked up by these overland flows will not have as much surface area to settle sediment before entering into the stream system. This increases the likelihood that low ARP values for "decades" will have a greater impact on peak flow rates and watershed health than is discussed.

- The Hydrology Report must be revised with ARP values considered not as an AVERAGE, but within each individual HUC12, particularly within those HUC12s that have a high percentage roaded condition and/or large amounts of Wilderness or unroaded acreage.

- The Hydrology Report must be revised to account for peak flow rates and sediment transport in order to establish the true impacts of canopy cover reduction on watershed health.

General Hydrology Report Corrections

- Figure 8 (HR p18): This figure shows the exact same image as Figure 6 on page 16, with only the Figure title changing. Please correct the image.

- Table 8 (HR p24) and Table 2 (EA p7): Please clarify in this table in both the Hydrology Report and the EA that the distances listed are on *both sides* of the stream, which would result in a total width of 2x those distances.

Hydrology Report Results

Even with the lack of full analysis necessary for an accurate assessment of the hydrological conditions of the watersheds within the MBS, the results presented in the Hydrology Report provide an unacceptable level of impact from the proposed project, without any attempt to include in the project any modifications to ameliorate those impacts. The existing condition of the watersheds, and the impacts to these watersheds from the FWT Project, must be taken into consideration when proposing activities within the individual watersheds. Additional actions must also be taken to address the fact that adequate future road maintenance cannot be expected on any of the roads within the MBS, given the lack of funding currently available for road maintenance and the lack of any anticipated increase in funding available in the future. The MBS Sustainable Road Strategy (2015) stated that "Based on funding levels over the previous five years, the Mt. Baker-Snoqualmie National Forest can only afford to maintain approximately 35% of the current road system fully to standard. This trend is continuing, and by default, annual prioritizing for maintenance has been occurring resulting in roads that do not meet Highway Safety standards and are at risk for failures." (SRS p39)

Purpose and Need

The Hydrology Report states (incorrectly) on p 10:

> "Note that part of the Purpose and Need for this Project is to enhance the health of streams and associated aquatic ecosystems by modifying the transportation system, stabilizing roads to reduce road-derived impairments, increase floodplain and channel complexity, and remove barriers to aquatic species migration."

This statement is incorrect, as the FWT does not propose any modifications to the transportation system, makes no changes that will clearly increase floodplain and channel complexity, and does not prioritize removing barriers to aquatic species migration.

- The Hydrology Report must be revised to remove this statement from the Report.

WCF and WARA Results Must Be Considered

The Hydrology Report states:

Hydrology Report p29: "…there are many watersheds listed in Table 9 showing roads are an issue."

Hydrology Report p 29:

> "*Roaded Areas within 300ft Buffers* near or greater than 12% will allow increased precipitation events to flow into streams, which would likely contribute to increased stream peak flows. Table 9 shows 29 HUC 12s in this condition."

This is out of 114 HUC 12s included in the Hydrology Report that have both Road and Stream Data and >5% MBS NF ownership, meaning that over 25% of these HUC 12s in the MBS are in this poor condition.

And yet, Table 19 (WARA Results) shows that these HUC 12s listed in Table 9 are proposed to have huge areas of commercial thinning, and within those HUC 12s the PIA area is a large percentage of the total HUC 12 area.

So, not only is the PIA area a huge portion of the total HUC 12 area, but these HUC 12s have an unacceptably large percentage of roads within a 300 foot buffer of streams—roads that were developed for timber harvest. Additionally, these HUC 12s are often also listed in Table 17 (WCF Results) as having poor Watershed, Wetland, Water Quality, and Aquatic Habitat Conditions.

For example, in the Lower Greenwater River HUC 12, WARA Results from Table 9 rates it as HIGH road density, with 31.3% road area within the 300 foot stream buffer, and HIGH % of roads within 300 feet of a stream. WCF Results from Table 17 describe the Lower Greenwater River watershed as "Functioning at Risk", with POOR Riparian/Wetland Vegetation and POOR Aquatic Habitat Condition. Nevertheless, this project proposes that HALF of this watershed (54% of watershed within NF boundaries, 48% of the entire watershed) should be available as PIA acres. This is unacceptable, as any watershed that is already in an unacceptable condition cannot be expected to "maintain and restore" the aquatic conditions during activity across potentially HALF its area, as is required by the NWFP ACS.

- The EA must be revised to remove or reduce the area of cutting units in the HUC 12 Watersheds listed in Table 9 because of the negative results from the WCF and WARA analyses.

- The EA and the PIA and the maps listed in the Hydrology Report must all be revised to reduce the area of cutting units in the additional HUC 12 Watersheds listed in Table 17

that are “Functioning at Risk” or that have “2 or more Poor WCF Ratings” or “1 Poor and 1 or more Fair WCF Ratings” or “1 Poor Road and Trail Rating” or “3 Fair WCF Rating”.

- Either of the above conditions associated with a HUC 12 must trigger an analysis of the ROAD density within the HUC 12, with a goal to reduce the mileage of roads to a level that brings the WCF Rating for Road and Trail to “FAIR” or “GOOD”, and/or a WARA Analysis that brings the watershed below the 12% threshold and removes the watershed from Table 9.

Roads – Hydrology Report and EA

Hydrology Report p13: “Current road densities in HUC12s listed in Table 9 are likely contributing to instream flow and sediment conditions, challenging NWFP ACS objectives”

Hydrology Report p 29: “Several road stream crossings per road mile will create efficient conduits for increased surface flow due to roaded conditions greater than 12% within 300 feet of streams. For areas near streams this is a concern for increased surface flow into drainages contributing to the peak flows and erosion issues discussed above.”

Hydrology Report p 28: “Aquatic habitat on the MBS is also impacted by undersized culverts at road-stream interactions that block the passage of fish and other species.”

Hydrology Report p 28ff: “…for the MBS, most roads continue to have improperly sized road-stream crossings and abandoned roads that have not been hydrologically recovered.”

Throughout the MBS, outdated and unmaintained road systems are negatively impacting the hydrological and terrestrial environment. This FWT Project proposes to thin previously harvested stands, reopen closed roads, and build and close temporary roads. However, no road closures are proposed, and no culvert replacements are required through this project.

Per the EA (p30) “…where road crossings aren’t upsized (due to determination that existing culvert structures would support haul) it’s expected that legacy impacts to channels and impassible barriers to fish would persist during and after project implementation.” So, culvert replacement would only occur if it is determined that a culvert could not structurally support the loads being driven over it, without any consideration as to whether the culverts are currently causing sedimentation, flooding, or road instability, if it is currently blocking aquatic migration, or if any of these conditions can be expected in a climate change future.

The NWFP clearly states that “The amount of existing and nonsystem roads within Key Watersheds should be reduced through decommissioning of roads.” (NWFP Standards and Guidelines, p B-19)

- In order to comply with the direction of the NWFP, road closures and culvert replacements must be implemented throughout this project, in particular within those watersheds listed in Table 9 that have unacceptable roads located within 300 foot buffer of streams.

Per the Hydrology Report (p29), "The process normally used for helping to deal with these degraded/abandoned roads that are not proposed for future access and road decommissioning is not available…"

- The EA must be revised to clarify what process is normally used to address the above issues, and why this process is not available for this project.

PDCs as proposed will not protect aquatics

Hydrology Report p32: "Ongoing, long-term road maintenance would be desirable to achieve sustained road improvements."

As stated above, the MBS does not have the budget to maintain existing roads, they have not had a sufficient budget for road maintenance for years, and there is no anticipated budget for sufficient road maintenance well into the future.

- The EA must be revised to describe the current funding for road maintenance is on the MBS.

- The EA must be revised to describe what percentage of system roads on the MBS are currently receiving maintenance.

- The EA must be revised to describe what the anticipated funding for road maintenance is in the MBS over the 30 years of the project.

Hydrology Report p29: "…reliance on PDCs is needed to reduce the effects of roads, particularly rocking of roads and ditches at stream crossings. However, this has a limited time frame as rock roads tend to revert to native road surfaces which implies that ongoing, long-term road maintenance would be necessary to achieve sustained improvements, suggesting a potential long-term implementation challenge which would not be fully resolved by a possible one-time road rocking during project implementation."

- The EA must be revised to describe how the PDCs will provide any benefit to the long-term hydrologic condition of the Forest if long-term road maintenance is not possible.

The above statement admits that the PDCs outlined for road maintenance will not be of any long-term benefit to the MBS. Combined with the fact that the thinning activity will have "short

term" impacts of increase in flow rates and sedimentation due to road disturbances, reduced canopy cover, increase in Detrimental Soil Conditions, and ground disturbing activities due to the thinning itself, there will be no net improvement to the aquatic system, and in actuality will be a net degradation of the system since the short term impacts will not be balanced by any long-term improvement. This is contrary to the requirements of the NWFP ACS.

Table 14: Water Quality and Aquatic Habitat Attribute Summaries must be modified to reflect the fact that this project will not be improving the watershed condition.

- Sediment/Turbidity/Substrate Attribute Summary states: "With long term road maintenance this indicator should improve subwatershed health anticipated within all Subwatersheds". Clearly, since long term road maintenance is not a part of this project, nor can it be expected as there is no funding mechanism for it, this statement is incorrect and should be removed from the project document. Please revise the Hydrology Report to remove this incorrect statement.
- Aquatic Habitat: Physical Barriers states: "No barrier culverts upgrades are proposed therefore this attribute will continue to be maintained. The MBS will continue to be replaced barrier culverts with aquatic organism passage in other projects. Habitat fragmentation will continue to be maintained and improved over time." Since barrier culvert replacement is not a part of this project, and there is no aspect of this project that plans to address habitat fragmentation, this entire statement is incorrect and should be removed from the project document. Please revise the Hydrology Report to remove this incorrect statement.

Entry Plan

The Forest Service should take this opportunity to use this project to identify roads that would be appropriate for closure or decommissioning. Roadways are the primary cause of sediment pollution in creeks, streams and rivers, and the Forest Service does not have (nor will they have in the foreseeable future) adequate funding to manage and maintain their existing roadways. Closure and decommissioning of unnecessary roads is the only sustainable management solution.

To this end, if no additional vegetation projects are identified in an annual project area, then an Entry Plan for all the stands in the project area should be identified during the annual Implementation Process. This annual review process can identify those roadways that are only accessing LSR stands nearing 80 years of age, at which point the NWFP precludes any further entries. For example, if the stands that are accessed during a particular year are 60+ years old, and if thinning treatments are carried out on those stands, it can be reasonably assumed that no further entries will be made and that the 80-year restriction would prevent any future entries. Therefore, any roads associated with those stands that are likely to age out of eligibility

for future treatment and are at Maintenance Level (ML) 1 – ML3 should be considered for decommissioning as part of this project. Younger stands might need additional entries in the future to perform treatments. We request the Forest Service should use the Environmental Document to plan for decommissioning roads that only access LSR stands aged greater than 60 years old.

The EA must be revised to explicitly state that all temporary roads constructed for this project must be obliterated and decommissioned after use. This obliteration should be full and complete, and cannot just rely on road closure and gating in order to reduce the opportunity for unauthorized use and access. Per the NWFP: "Road closures with gate or barriers do not qualify as decommissioning or a reduction in road mileage." (NWFP Standards and Guidelines, p B-19)

V. THE DRAFT EA AND THE HYDROLOGY REPORT FAILED TO ADDRESS THE TIMBER HARVEST RESTRICTIONS IMPOSED BY APPENDIX H, THE HYDROLOGIC CUMULATIVE EFFECTS ANALYSIS, TO THE 1990 FEIS TO THE 1990 MT BAKER-SNOQUALMIE LAND AND RESOURCE MANAGEMENT PLAN.

We attach to this Comment letter a PDF copy of pages H-34 through H-144 of Appendix H to the MBS 1990 LRMP FEIS, which include the technical analysis of the Hydrologic Cumulative Effects, and the methodology of field evaluations, a sample worksheet, as well as the summary field data conclusions, for the 70 watersheds and subwatersheds in the MBS which were analyzed.[1]

Table 2 on page H-44 through H-45 lists all analyzed watersheds and subwatersheds. All watersheds required timber harvest constraints for four (4) decades, ending in 2030.

Eighteen (18) of the watersheds and subwatersheds on the MBS were determined in 1990 to be unacceptable, These watersheds and subwatersheds are listed on Table 3 on page H-46.

The timber harvest constraints for all of the watersheds are listed, including for each of those 18 'unacceptable' watersheds, in the summary data pages of Appendix H, which are found in pages H-65 through H-144.

The timber harvest constraints required that harvests in the listed watersheds *not exceed* the acreage listed in Appendix H for each watershed and subwatershed, so as to permit the watersheds and subwatersheds to recover and meet riparian and water quality standards.

Therefore, the maximum timber harvest permitted through 2030 for the listed Allocation Zones, watersheds and subwatersheds, is as set out in Appendix H.

[1] *Note that pages H-1 through H-33 are not attached, as those pages were background but should the reader wish us to provide those pages, we will do so.*

In addition, we note the following:

1. The 1990 Mount Baker-Snoqualmie Land Resource Management Plan (the "LRMP") clearly contemplated that the FEIS was applicable to subsequent environmental analysis. See the following on page 1-2 of the LRMP:

> *"Specific activities and projects will be planned and implemented to carry out the direction in this Plan. The Forest will perform environmental analyses on these projects and activities.* ***This subsequent project-level environmental analysis will use the data and evaluations in the Plan and FEIS as its basis. Environmental analysis of projects will be tiered to FEIS accompanying this Forest Plan****. [emphasis added]*

2. On Page 3-7 of the LRMP:

> *"The hydrologic cumulative effects management requirement is designed to insure [sic] that effects of management activities prescribed by this Plan meet the intent of water quality laws and regulations."*

3. See also Pages 3-6, 3-11 and 3-12 of LRMP:

> *"Land allocations and standards and guidelines are used to meet part of the riparian management requirements and fish habitat needs. To fully meet riparian and water quality management requirements****, a constraint is established on the maximum number of acres that can be harvested in a given watershed in a decade. These limits on final harvest are incorporated as Forest Plan standards and guidelines."*** *[emphasis added]*

Further, we also note the following:

The NWFP specifically states that, to the extent that existing Land Management Plans that precede the NWFP included stricter provisions, *then those earlier stricter provisions apply instead of the NWFP provisions.* See the 1994 Record of Decision, part of the NWFP, page 12 as follows:

> ***"2. Relationship Standards and Guidelines to Existing Plans.*** *The existing land management plans contain many standards and guidelines that are not amended by this decision. Only those existing plan standards and guidelines in conflict with this decision are replaced.* ***Where existing plans are more restrictive or provide greater benefits to late-successional forest related species than Attachment A, the existing plan standards and guidelines will continue****." [bold emphasis in the last sentence added]*

In addition, we note that broadly speaking, the 2025 Hydrology Report focuses on **sediment issues from roads, with minor focus on Rain on Snow conditions** while the Appendix H Analysis focuses on **stream channel conditions and upslope conditions, including canopy concerns.** The

2025 Hydrology Report does not replace the Appendix H Analysis, nor substitute for the Appendix H Analysis.

The Sierra Club *urges and demands that reduction in the amount of timber that can be harvested through 2030* in those of the MBS watersheds and subwatersheds per the Draft EA that are listed in Appendix H, is therefore required in order to comply with Appendix H, and the Draft EA must be revised to reflect those limitations.

VI. COMMENTS ON WILD AND SCENIC RIVERS

EA Appendix B, pages 94 and 95

On page 94, the EA States *"R20. Wild segments of WSR river corridors are not suitable for timber production. Timber harvest will not be implemented in designated or eligible/suitable WSR corridors with the Wild classification."*

COMMENT: The limitations on timber harvest are inconsistent with the management direction clearly documented in the "Environmental Assessment for the Middle Fork Snoqualmie and Pratt Wild and Scenic Rivers Comprehensive River Management Plan Snoqualmie Ranger District, Mt Baker-Snoqualmie National Forest, King County, WA, dated September 2022" that applies to the Middle Fork Snoqualmie River in King County.

The CRMP EA states on pages 11-16 that Management Allocation MA-28 limits timber harvest on both scenic and recreational river reaches. "*Scenic and recreational river corridors are not suitable for scheduled timber production* [emphasis added]; however, timber harvests, salvage and fuelwood cutting may be utilized to achieve desired riparian conditions consistent with the Aquatic Conservation Strategy, including wildlife habitat connectivity."

- The Sierra Club **urges and demands** that the EA be revised for full consistency with the "Middle Fork Snoqualmie and Pratt Wild and Scenic Rivers Comprehensive River Management EA" since this direction applies to the Middle Fork Snoqualmie Wild and Scenic River. The FWT EA direction, as written, will adversely impact Middle Fork Snoqualmie Wild and Scenic River in all segments. Specifically, please add "Scenic and Recreational River" segments for the Middle Fork Snoqualmie River to the R20 definition on EA page 94.

- The Sierra Club further **urges and demands** that if any thinning is contemplated within the Middle Fork Snoqualmie River Wild and Scenic River Corridor, the FWT EA must be further revised to explain in detail how any proposed "thinning activity or related development" will *protect and enhance river values* (free-flow, water quality, ORVs) and/or wildlife habitat." The Middle Fork Snoqualmie River Wild and Scenic River CRMP documents that nearly all of this river's scenic reaches contain stands that originated more than 80 years ago, see Figure 8 on page 17.

On page 94, the EA States "R21. No temporary road construction or re-opening of ML-1 roads will occur in WSR corridors with the Wild Classification"

COMMENT:

The limitations on road construction and reopening ML-1 road are inconsistent with the management direction clearly documented in the "Environmental Assessment for the Middle Fork Snoqualmie and Pratt Wild and Scenic Rivers Comprehensive River Management Plan Snoqualmie Ranger District, Mt Baker-Snoqualmie National Forest, King County, WA, dated September 2022" that applies to the Middle Fork Snoqualmie River in King County.

The EA states on page 12 that Management Allocation MA-28 limits development within river corridors designated as *scenic*. "Those rivers or sections of rivers that are free of impoundments, with *shorelines or watersheds still largely primitive and shorelines largely undeveloped* [emphasis added] but accessible in places by roads." No new roads, or ML-1 Roads, or ML-0 roads should be constructed or reconstructed within the scenic river segment of the Middle Fork Snoqualmie Wild and Scenic River Corridor.

- The Sierra Club **urges and demands** that the EA R21 discussion be revised for full consistency with the "Middle Fork Snoqualmie and Pratt Wild and Scenic Rivers Comprehensive River Management EA" that applies to the Middle Fork Snoqualmie Wild and Scenic River so that this scenic river segment will not be adversely impacted by the FWT as written. Specifically, please add the "Scenic River" segment for the Middle Fork Snoqualmie River to the R21 definition on FWT EA page 94.

- In addition, The Sierra Club **urges and demands** that the EA R21 discussion be further revised to include both the designated and eligible river segments within the Forest.

On page 95, the EA States ***"R23****. Within designated or eligible WSRs classified as Scenic or Recreational, timber harvests, salvage and fuelwood cutting may be utilized to achieve desired riparian conditions consistent with the Aquatic Conservation Strategy, including wildlife habitat connectivity."*

COMMENT: The limitations on timber harvest are inconsistent with the management direction clearly documented in the "Environmental Assessment for the Middle Fork Snoqualmie and Pratt Wild and Scenic Rivers Comprehensive River Management Plan Snoqualmie Ranger District, Mt Baker-Snoqualmie National Forest, King County, WA, dated September 2022" that applies to the Middle Fork Snoqualmie River in King County. The CRMP direction is more restrictive than the Aquatic Conservation Strategy as written in the NWFP Standards and Guidelines because of the particular river values that any cutting must "enhance."

On page 14 of the CRMP EA, it states "*Scenic and recreational river corridors are not suitable for scheduled timber production; however, timber harvests, salvage and fuelwood cutting may be utilized to achieve desired riparian conditions consistent with the Aquatic Conservation Strategy, including wildlife habitat connectivity.*" MA-28 further states that "*… any vegetative treatments would have to be done for the purpose of protecting and enhancing river values (free-flow, water quality, ORVs) and/or wildlife habitat* [emphasis added]."

The Middle Fork Snoqualmie River Scenic and Recreational River segments are not suitable for scheduled timber production. Consequently, any vegetative treatments must be made for the purpose of "protecting and enhancing" river values, and certainly not to supplement timber industry mill operation as emphasized on FWT EA page 4.

- The Sierra Club **urges and demands** that the FWT EA be revised for full consistency with the "Middle Fork Snoqualmie and Pratt Wild and Scenic Rivers Comprehensive River Management EA" as that direction applies to the Middle Fork Snoqualmie Wild and Scenic River Corridor "scenic and recreational reaches." will not be adversely impacted by FWT activity. Specifically, please add "Scenic and Recreational River" segments for the Middle Fork Snoqualmie River to the R23 definition on FWT EA page 95.

- The Sierra Club **urges and demands** that the FWT EA be revised to document the presence of forest stands in the Middle Fork Snoqualmie River scenic and recreational reaches that originated more than 80 years ago. See Middle Fork Snoqualmie River Wild and Scenic River CRMP Figure 8 on page 17.

EA, page 7, Transportation Systems: The EA states *"To implement the proposed activities, current National Forest System (NFS) roads, unclassified or abandoned road grades, and new temporary roads would be used to access stands."*

COMMENT: Past Vegetation Management projects have proposed reopening previously decommissioned (ML-0) roads (Chenuis Creek in CARLA). Because roads are a major source of sedimentation in watersheds, and the limited scope of this thinning project when compared to the extent of MBS NF stands acres less than 80 years old that are suitable and available for thinning, it would seem prudent to leave previously decommissioned roads decommissioned.

- The Sierra Club strongly **urges and demands** that the EA be revised to explicitly state that previously decommissioned roads will not be reopened. In addition, this project should look for opportunities to decommission additional road segments. The project should also limit reopening closed roads (ML-1).

EA, page 7, Transportation Systems: The EA states "*Building and decommissioning of temporary roads, spot removal of roadside vegetation, and other NFS road maintenance and reconstruction would be associated with commercial timber sale hauling activities."*

COMMENT: Because roads are a major source of sedimentation in watersheds, as an integral part of this project, all temporary roads and non-system roads should be decommissioned.

- The Sierra Club strongly **urges and demands** that the EA be revised to require that as a part of this project building new temporary roads will be held to a minimum, all temporary roads will be decommissioned as part of this project, and all non-system roads will be decommissioned as part of this project.

EA, page 7, Transportation Systems: The EA states *"Rock quarry expansion may be needed based on rock quality, quantity and economics for each project. The following rock source activities could occur annually on the forest:"*

COMMENT: Construction of new or maintenance of existing Rock quarries are entirely inappropriate for both designated and eligible wild and scenic river corridors. Given the size of the NF area to work with, there is no real need to develop rock quarries in either designated and eligible wild and scenic river corridors or any LUA or MA that has high visual qualities or other critical resource values as already noted in the EA.

The Sierra Club **strongly urges and demands** that the FWT EA be revised to explicitly state that the development of rock quarries will not be developed within either designated and eligible wild and scenic river corridors.

VII SILVICULTURE ISSUES

EA, page 7, Transportation Systems:

COMMENT: The FWT EA is clearly focused on thinning in LSRs (page 5, Table 1). Since the forest stand age data shows the greatest area of Forest stands under 80 years occurs in LSRs, it is critical that this EA addresses the management direction for road construction, as specified, in the NWFP Standards and Guidelines.

The S&G's state on page C-16 "…. If new roads are necessary to implement a practice that is otherwise in accordance with these guidelines, *they will be kept to a minimum, be routed through non-late-successional habitat* [emphasis added] where possible, and be designed to minimize adverse impacts…."

- The Sierra Club **urges and demands** that the EA sections and related specialist reports addressing Transportation be revised to reflect the explicit direction for road construction and reconstruction that is found in NWFP Standards and Guidelines (C-16) and that calls for minimizing road construction in LSRs and keeping any such roads out of late-successional habitat (stands older than 80 years).

EA, page 25, Spatial and Temporal Context for Effects Analysis, the EA states*: "Although commercial thinning could occur in places outside of those potential implementation areas if qualifying site conditions are met."*

COMMENT: We are concerned that the EA is considering thinning beyond the PIAs that are shown in the Hydrology Specialist Report noted on page 2, Project Location, if the Decision Point Criteria is met. The EA must disclose all potential locations were thinning could possibly expand beyond the PIAs currently shown in the EA and Specialist Report maps, per stated Decision Point Criteria.

- The Sierra Club **urges and demands** that the EA be revised to include detailed maps of readable scale (one inch equals one mile) for:

    - all areas that are planned to be thinned (per the draft EA) and in addition
    - show those areas that may be suitable and available for thinning beyond the depicted PIA.

We are strongly opposed to the expansion of any thinning (1) in stands over 80 years old; (2) in LUAs and MAs where timber harvest is neither programed nor scheduled; (3) in Inventoried Roadless Areas; (4) in other unroaded areas; or (5) in stands that were naturally regenerated regardless of stand age.

EA, page 69, Transportation Planning (or Zone Engineer), the EA states "Identifying sale area roads and road issues that affect sale economic viability."

COMMENT: On EA, page 23, "Proposed Actions and Expected Effects, Project Assumptions," states that the project design will be limited such that "...no new permanent NFS roads will be created...".

Consequently, helicopter logging and/or any new road construction, temporary or otherwise, of any new road segment into an unroaded portion of the forest (inventoried or not inventoried) will violate the intent and direction of this FWT Project and certainly negatively impact economic viability of any sale.

Therefore, the ***Sierra Club urges and demands*** the following in order to facilitate the most economically viable pattern of cutting:

- that the EA be revised to explicitly state that logging will not take place in any stands that require road access (temporary or otherwise) or access by air (by helicopter) into any inventoried or non-inventoried roadless areas.

- that the EA be revised to explicitly state that where significant road re-construction or maintenance is required to access relatively small areas of younger stands, *cutting in small areas will be avoided and larger stands will generally be prioritized*

for thinning. One example of this situation is found in Lennox Creek on the Snoqualmie Ranger District.

Does the MBSNF anticipate having to repeat any additional thinning of previously thinned areas within the 30-year time span of the proposal? Is the FS going to re-enter previously thinned areas under the FWT during the 30 year term, and if so, will the acreage subject to re-thinning be deducted from the annual 1,200 cap? If the FS contemplates any such re-entry during the 30 year term, the ***Sierra Club demands*** that the EA be revised to describe all such re-entries, and that the EA be revised to clearly stipulate that any such re-thinned acreage is deducted from the 1,200 acres permitted to be cut each year.

What is the relationship between prior sales and the proposed FWT actions?

The EA does not address the inter relationship of the proposed FWT actions and existing timber sales that:

(1) have been planned, are NEPA complete (meaning that a Final Decision has been signed) and not implemented (such as North Fork Nooksack – Canyon Creek); or

(2) planned and are not NEPA incomplete (North Fork Nooksack – Glacier Creek); or

(3) sales that were planned and partially implemented (Hansen Creek Vegetation Project, July 2015).

COMMENT: The ***Sierra Club urges and demands*** that the forestwide EA must address all timber sales that are planned but have not been fully implemented on the ground, i.e. cut.

The ***Sierra Club urges and demands*** that:

- The EA be revised to describe the relationship of this FWT Project and its cutting units and existing timber sales that have been planned on the MBS since 2010.

- List of sales and description of NEPA status and implementation status, since 2010, including NEPA completion, bids submitted, contracts awarded, and implementation/cutting

- The FWT PIA cutting units not be overlaid on top of existing sales units, whether they have been cut already or only planned.

- The FWT PIA cutting units not be located within existing timber sale 'project areas' that were previously excluded from cutting by a completed NEPA process.

    - We note with concern, by way of example and without limitation, that on the map of PIAs for the Snoqualmie Ranger District:

- cutting units have been added to the PIA along that boundary of the Alpine Lakes Wilderness in a deviation from the 2015 NEPA decision. These PIA units are shown along the *entire south boundary* of the Alpine Lakes Wilderness in the South Fork Snoqualmie between the west Forest boundary in Section 31 (T23N-R10E) and Talapus Creek.

- cutting units to the Hansen Creek Vegetation Management Project (Hansen Creek EA page G-3) have been added to the PIA, consisting of the following :
    - staggered cutting units i.e. patches which are not next to each other (units 16.2, 16.4, 15.2, 15.4, 15.5, 15.6, and 14), near, but not contiguous with, the Wilderness boundary.
    - The area between these units was not to be cut per the Hansen Creek EA, page G-3.
    - The PIA shows the area between the noted staggered cutting units to be subject to thinning.
- We object to this deviation from a completed NEPA process because such an action 1) deviates from a recently approved NEPA process; and 2) would produce a very large contiguous thinned area in a sensitive location..;

- Please revise the EA and the PIA, including without limitation the Map on page 51 of the Hydrology Report, to eliminate cutting units on the Wilderness Boundary, for consistency with previously NEPA approved EAs on FS projects, for the Snoqualmie Ranger District.

VIII. SILVICULTURAL COMMENTS- DECISION POINTS FOR VARIABLE DENSITY THINNING

EA, page 6, Decision Points for Variable Density Thinning: The EA states *"Stands located in land use allocations (NWFP) and management areas (LRMP) allowing commercial timber harvest."*

COMMENT: The EA is deficient in its definition of where thinning may take place across the Forest. The FWT EA must identify, locate, and list all areas of the MBS NF by Land Use Allocation (LUA) and the underlying Management Allocations (MA from the 1990 Land and Resource Management Plan [LRMP]) where timber harvest is neither programmed nor scheduled by current direction.

- The Sierra Club **urges and demands** that the FWT EA and related documents be revised to document all (1) Congressional Withdrawals (CR-Wilderness, and Wild and Scenic River Corridors, etc.); (2) LSR over 80 years; and (3) Administrative Withdrawals where timber harvest is neither programmed or scheduled, regardless of stand age by land use allocation name. Those MA/LUA (merged land allocations) must be identified by a listing of areas that include the associated Ranger District. All land use allocations prior to 1990

must be included in this evaluation, particularly the Alpine Lakes Area Land Management Plan, as revised.

- The Sierra Club further **urges and demands** that the FWT EA and related documents be revised to add:

    - forest wide maps of sufficient scale (at least one-inch equals one mile) that locate all LUAs including CR, LSR, and other merged LUAs with underlying Management Allocations (MA) where timber harvest is neither programmed nor scheduled. These forest wide maps must show the age of stand origin with sufficient stratification by range of dates that will allow the public to clearly see where forests are older than 80 years old, where forests are approaching 80 years of age in the time frame of this FWT Plan as defined, and younger stands.

  These maps must be made available to the public at the earliest possible date (the same is true for other maps noted below).

  Furthermore, these maps must be updated several times during the life of this Project to show that stands that are currently in the age range of 1946-1976 that may 'age out of eligibility' for this VDT treatment.

- The Sierra Club further **urges and demands** that the FWT EA and related documents be revised to add additional information, in the form of the additional map(s) discussed above, that depict those stands less than 80 years old that could receive the greatest benefit most from thinning and are part of LUAs and MAs that are suitable and available for thinning.

- The Sierra Club further **urges and demands** that the EA "Decision Point for Variable Density Thinning" discussion be revised and expanded to account for the fact that all younger stands on this Forest are not of equal environmental, recreational, or spiritual value. Some stands are located in drainages with significant environmental and conservation histories (such as the Cascade, Snoqualmie, and Skykomish Rivers, to name a few). Since the FWT is limited to a portion of the stands younger than 80 years old, it is expected that the MBS NF will exercise judgement as to which subset of stands are chosen for VDT treatment.

- As a reminder, the importance of the timber economy in the overall scheme of things is expected to be far less in 30 years than it is today, so please do not mortgage our future to a dying horse.

EA, page 6, Decision Points for Variable Density Thinning: The EA states *"Any forested stands less than 80 years of age at time of harvest."*

COMMENT: The Sierra Club is concerned about accuracy of the forest inventory that is available to identify the location on the ground of those stands less than 80 years old. How will these acres be identified and located on the ground?

- The ***Sierra Club urges and demands*** that the EA be revised to describe in detail how and by what methodology will stands less than 80 years old at the time of harvest be identified on the ground.

- If the Forest intends to use the Jan Henderson maps for 'date of stand origin' as they have done for several prior sales (such as the North Fork Nooksack Vegetation Management project, 2022), the FWT EA must so state.

EA, page 6, Decision Points for Variable Density Thinning: The EA states *"Even aged stands regenerated following a harvest or other disturbance that developed as an even-aged single layered stand."*

COMMENT: The Sierra Club strongly disagrees with thinning younger stands that have originated from "…*disturbance[s] that developed as an even-aged single layered stand*." that were not a result of timber harvest activity. These naturally regenerated stands are likely to have higher ecological values than previously cut and replanted stands and should be left to naturally develop older forest characteristics.

- The ***Sierra Club urges and demands*** that the EA "Decision Point" discussion be revised to eliminate the provision that allows cutting in stands less than 80 years old that were naturally regenerated. In addition, it is requested that the EA be revised to depict on maps of readable scale all locations of naturally regenerated stands.

EA, page 6, Decision Points for Variable Density Thinning: The EA states "*Overstocked and structurally simple stands lacking species diversity.*

COMMENT: Only "Overstocked and structurally simple stands" that are within those LUAs and MAs where timber harvest is programmed or scheduled should be identified for thinning.

The **Sierra Club urges and *demands*** that only those "*Overstocked and structurally simple stands lacking species diversity"* that are within LUAs and MAs that are programmed and scheduled for cutting be located on the ground and mapped for inclusion in a revised FWT EA that will be made available to the public as soon as possible.

IX ECONOMIC ISSUES

EA Purpose & Need, page 4: timber industry, as wood products infrastructure greatly improves the ability to *"Need to provide sustainable flow of forest products – There is a need for a viable timber industry, as wood products infrastructure greatly improves the ability to treat and manage forest vegetation in a cost-effective and efficient manner while providing long-term local employment."*

The Sierra Club finds that the economic data for the region located around the MBS does not support this stated Purpose and Need.

COMMENT: The EA must provide numerical economic context for this statement of the "Need to provide sustainable flow of forest products – There is a need for a viable timber industry…"

The **Sierra Club demands** that the EA be revised as follows:

- depict annual log volume estimates produced by this FWT project for the MBS NF for each year of the project's life and disaggregate this volume by county of origin and by year.
- define the total volume of logs from all MBS NF timber sale programs, including the FWT Project volumes, for each year of the FWT project's life and disaggregate this total volume by county and by year. Estimate the share of the FWT generated volumes compared with the total MBS NF log volumes by county and by year for the life of the FWT project.
- incorporate a numerical analysis that compares the relative importance of all logs originating from only the MBS NF lands to the total log volumes originating from all ownership classes for the following geographies: (1) WA State, (2) the nineteen Western WA Counties, and (3) the economic influence zone (EIZ-) of the five counties of the Mt Baker-Snoqualmie (MBS) National Forest.
    - Define the relative importance in terms of the percent share in Scribner log volume of all NF logs compared to all log volumes from all Ownership Classes[2] for each of the three noted geographies over the life of this FWT project.
- incorporate a numerical analysis that estimates the number of full-time and part time jobs in the Direct Timber Sectors[3] including:

[2] Ownership Classes defined as federal, State, and all private lands and log sources
[3] Direct Timber Sectors include forestry, logging, solid wood products, and paper products

(1) FWT Project generated jobs; and

(2) all other full-time and part-time Direct Timber Sector jobs, including FWT jobs listed above

generated from all logs originating from the **MBS NF.**

- incorporate a numerical analysis that defines the total number of full-time and part time jobs generated by all timber sector activity from all Ownership Classes in Direct Timber Sectors generated within the **five EIZ counties**.
- incorporate a numerical analysis that compares the relative importance of the direct full-time and part-time timber sector jobs generated by all MBS NF logs and compare these job totals to the number of full-time and part time jobs in direct timber sector generated from all timber sector jobs in the five EIZ counties. Define relative importance in terms of the percent share of direct jobs generated by all MBS NF logs to all direct timber sector jobs generated by all timber sector activity in the five county EIZ over the life of this FWT project.
- incorporate a numerical analysis that compares the relative importance of the all direct full-time and part-time timber sector jobs generated by all timber sector activity and compare these job totals to the total number of full-time and part time jobs for all economic sectors for the economic influence zone (EIZ-) of the five counties of the MBS National Forest. Define relative importance in terms of the percent share of jobs generated by direct timber-based sectors compared to all jobs generated by all economic activity of the total economy (all NAICS4sectors) for the five counties of the MBS National Forest.

Our analysis shows that the MBS NF is and has been a minor supplier of logs not only to WA State as a whole, but also to Western WA. In particular, the MBS NF log flows to the Forest's economic influence zone (EIZ) has been and remains very small.

The MBS NF share of suitable and available commercial timberland in the EIZ also represents a very small share of the total timberland when this total is compared to the total land base available for all timber ownership classes in the EIZ.

Additionally, the timber sector's economic share of total economic activity in the EIZ counties is currently about 0.4% of total employment, having declined by over 60% between 2001 to 2024. However, since 2000, the EIZ's employment level in all non-timber sectors has expanded

[4] NAICS-North American Industrial Classification System

by 823,000 jobs or a 37% increase. This expansion is 100 times the size of the existing forest industry sector.

- The **EA must be revised** to explain how much the FWT project will supplement an the otherwise small regional timber industry and how these FWT outputs will benefit the EIZ's total economy (all sectors) when compared to the performance of all sectors of the EIZ.
- The **EA must also evaluate** the cost of FWT extractive impacts to the EIZ's non-extractive resources and values ((ecosystem services including but not limited to water quantity and quality, wildlife habitat, recreation, climate change implications, wildlife populations (including T&E species), etc.) using numerical analyses techniques that assesses relevant metrics.

Our findings are documented by the following sources:

- Timber Harvest Reports from University of Montana Business School (2002-2024) https://www.bber.umt.edu/FIR/HarvestWA.aspx
- WA Department of Natural Resources Timber Harvest Reports 1965-2017 https://dnr.wa.gov/data-dashboards-business-and-reports/washington-state-timber-harvest-reports
- WA Department of Natural Resources Mill Survey, 1968-2016 https://dnr.wa.gov/data-dashboards-business-and-reports/washington-state-mill-surveys
- Department of Commerce, Bureau Economic Analysis, Regional Accounts Data. Evaluate full-time and part-time employment. https://apps.bea.gov/itable/?ReqID=70&step=1&_gl=1*epz5lg*_ga*MjM3ODc5MjE3LjE3Njc0NzI3MTM.*_ga_J4698JNNFT*czE3Njc0NzI3MTMkbzEkZzEkdDE3Njc0NzI3NDQkajI5JGwwJGgw#eyJhcHBpZCI6NzAsInN0ZXBzIjpbMSwyOV0sImRhdGEiOltbIlRhYmxlSWQiLCI0OCJdXX0=
- Washington State Employment Security Department https://esd.wa.gov/jobs-and-training/labor-market-information/employment-and-wages/washington-employment-estimates-wa-qb-ces
- Washington State Employment Security Department https://esd.wa.gov/jobs-and-training/labor-market-information/employment-and-wages/projections
- Headwaters Economics, Economics Profile System. https://apps.headwaterseconomics.org/economic-profile-system
- *Report on "Distribution and Recreational Harvest of Mountain Huckleberry [missing Tulalip word] in the Mt. Baker-Snoqualmie National Forest"* a Joint Study of Tulalip Tribe and USDA Forest Service Mt Baker Snoqualmie National Forest, dated August 2015, Appendix 3, pages A43 thru A51.

- Timber resource statistics for nonnational forest land in western Washington, 2001. Resource. Bull. PNW-RB-246. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.
- Jan Henderson MBS NF data. Henderson, a fire ecologist and USFS retiree, who developed stand age data for the MBS NF that was derived from on the ground surveys and aerial photography. This data mapped forest stand ages in terms of dates of stand origin from the year 1000 to 2012 with links to stand locations with GIS data for the Forest. This information was available on the MBS NF website and has been used to support at least the North Fork Nooksack Vegetation Management EA project and the *Report on "Distribution and Recreational Harvest of Mountain Huckleberry [missing Tulalip word] in the Mt. Baker-Snoqualmie National Forest"* a Joint Study of Tulalip Tribe and USDA Forest Service Mt Baker Snoqualmie National Forest, dated August 2015.

X. CONCLUSION AND RECOMMENDATION:

Conclusion: *for all the reasons above stated, the Sierra Club states that the project fails NEPA and should be redone. In addition, for all the reasons above stated, the Sierra Club demands that the project have an EIS.*

The Sierra Club **strongly *recommends the following changes to the project:***

- Redo entirely, and break out into four separate projects, ***for which the FS must obtain a variance/waiver from the USFWS and the NMFS of the stipulated limitations under the WWRCZ Biological Opinions issued in 2025****:*
    - one project for each Ranger District, provided however that management of each of those Ranger District projects is through the Forest Supervisor's office; and
    - limit each project to a period not to exceed 10 years
    - total acreage cut at end of the project across all four Ranger Districts not to exceed 36,000 acres.
    - Annual notices to the public of the subsequent year's proposed cuts, to comply with all NEPA requirements, including without limitation a process for the public to submit objections and for administrative appeal by objectors.

- Each of the four projects must meet all NEPA requirements, including without limitation a process for the public to submit objections and for administrative appeal by objectors, and be conducted as an EIS for all the reasons outlined in this comment letter.

Dealing with smaller pieces of the MBSNF will make the scope of the project more comprehensible to the public as well as to decision makers, and will more effectively comply

with NEPA. Four separate projects will also facilitate better understanding of specific impacts within particular locales.

We appreciate the opportunity to comment on this significant project. The scale of the project, the sensitivity of the lands and waters in the project area, and the duration of the project require a close analysis of any proposed actions, with plenty of input opportunities from interested parties.

We hope that our comments and concerns will provide an opportunity for discussion and improvement of this project going forward.

Please place us on the mailing list and keep us informed of future developments, including the annual Public Review process we have requested.

Please keep us on the distribution list for all updates on this project as it is reviewed, finalized and implemented.

Sincerely,

Sierra Club - WA State Chapter
National Forest Committee

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