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Ms. Erin Uloth
Mt. Baker-Snoqualmie National Forest
Mt. Baker Ranger District
810 Highway 20
Sedro-Woolley, WA 98284

Electronically submitted to: comments-pacificnorthwest-mtbaker-snoqualmie-mtbaker@usda.gov

Dear Ms. Uloth:

Pilchuck Audubon Society represents over 1,000 members in the north Puget Sound region of Washington State. Our members use National Forests for various forms of recreation including bird- and other wildlife-watching, hiking, camping, climbing, snowshoeing, skiing; gathering berries, mushrooms, and medicinal plants; and spiritual renewal. Our mission is to conserve and restore natural ecosystems focusing on birds and other wildlife for the benefit of the earth's biological diversity.

This letter constitutes our response to your request for comments regarding the North Fork Nooksack Vegetation Management Project.

EIS Required

We are concerned at the outset about the scale of this project, which continues the apparent trend toward mega-timber sale planning. The enormous size of this proposal alone necessitates the preparation of a full Environmental Impact Statement (EIS). This watershed-scale project will have undeniably significant cumulative impacts, which will be magnified by the vast scope of the project. Because of this scale, there is a strong potential for conditions to change between the initial analysis and the execution of the individual timber sales. There are valid reasons for assessing the environmental impacts of projects that can be completed in the span of a few years, rather than attempting to predict impacts of work that will take place over a much longer time span. We are also concerned about the logistics of effectively administering and monitoring such a huge undertaking with the limited staff available to the Forest Service.

Under the National Environmental Policy Act (NEPA), 40 CFR 1508.27(b), "Significantly" is defined by the following:

(b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal

agency believes that on balance the effect will be beneficial.

This means that even if the Forest Service assertion that this project will improve old growth characteristics proves true, an EIS is required if this beneficial effect is considered significant. And if it is not, in fact, considered significant, we ask why the project should proceed?

(2) The degree to which the proposed action affects public health or safety.

This proposal has a strong potential for increasing the risk of landslides and mass wasting. Even if such landslides do not directly bury human beings or their properties, they can cause damming of rivers and the resultant flooding would jeopardize human life and property.

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

Over 60 miles of the North Fork Nooksack and its tributaries have been proposed for Wild and Scenic River designation.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

For the reasons detailed in this letter, this project will indeed be highly controversial. Furthermore, the stated purpose to improve old-growth characteristics and overall health of the "treated" forest is controversial as well.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The purported beneficial effects of this project are highly uncertain, with limited if any scientific supportive evidence.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Although this is not the first landscape-scale timber sale to be proposed, if it proceeds it will further contribute to the unfortunate precedent set by the South Fork Stillaguamish Vegetation Management Project.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

An EIS is required to adequately address the cumulative impacts with logging on State and private timberlands in the lower watershed.

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

This area is rich with history, both Native American and more recent immigrants'. An EIS is required to ensure

that these resources are adequately protected.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

There is a high probability of adverse effects on numerous ESA-listed species, as described below.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

It is likely that implementation of this project would violate provisions of the Northwest Forest Plan regulating activities in Late Successional Reserves and Riparian Reserves.

Purpose and Need

This previously logged forest is recovering nicely from devastating clearcuts. The stands are self-thinning naturally, with minimal disturbance to mycorrhizal fungi and other soil organisms essential for ecosystem health. The surviving trees are growing slowly, as they have evolved to do. We do not know whether artificially opening the canopy with the attendant disturbance of remaining trees, soil, and road construction will actually benefit the forest in the long run. There is evidence, however, that reducing canopy cover reduces habitat suitability for Northern Spotted Owls, which Late Successional Reserves (LSR) are intended to protect.

A 2018 literature review by H. Y. Wan *et al.* found that:

Commercial timber harvesting remains a potential threat for all 3 spotted owl subspecies, but effects from forest thinning may be increasing because of the heightened emphasis on fuels reduction and forest restoration treatments on public lands. Owl response to mechanical tree removal, especially forest thinning, remains understudied.¹

Other investigators have looked at effects of thinning on spotted owl prey species. According to a 2012 study by T. Manning:

Large-scale commercial thinning of young forests in the Pacific Northwest is currently promoted on public lands to accelerate the development of late-seral forest structure for the benefit of wildlife species such as northern spotted owls (*Strix occidentalis caurina*) and their prey, including the northern flying squirrel (*Glaucomys sabrinus*). Attempts to measure the impact of commercial thinning on northern flying squirrels have mostly addressed short-term effects (2–5 years post-thinning) and the few published studies of longer-term results have been contradictory.

When these researchers measured squirrel densities 11-13 years after thinning in Douglas fir forests, they found that “[t]hinning decreased density of northern flying squirrels, and squirrel densities were significantly lower in heavily thinned stands than in more lightly thinned stands.”²

¹ Wan, H. Y., Ganey, J. L., Vojta, C. D., & Cushman, S. A. (2018). Managing Emerging Threats to Spotted Owls. *The Journal of Wildlife Management*, 82(4), 682-697.

² Manning, T., Hagar, J. C., & McComb, B. C. (2012). Thinning of young Douglas-fir forests decreases density of northern flying squirrels in the Oregon Cascades. *Forest Ecology and Management*, 264, 115-124.

These are only a few examples of the studies that we could cite which cast doubt on the premise of logging to improve late-successional habitat. This lack of scientific support also extends to the goal stated in the scoping letter of “improv[ing] the forest condition” in Riparian Reserves, and “restor[ing]...this landscape to a condition that would be resilient to major disturbances such as droughts, insect outbreaks and fires...” Many years of research by fire scientists have shown that logging is more likely to increase than to reduce fire danger. Does the Forest Service have evidence to the contrary, or data that supports logging as a means to prevent the other listed “disturbances”?

Roads

There is no mention of new or temporary road construction or reconstruction in the scoping letter. The adverse environmental effects of road construction (whether temporary, permanent, or rebuilt) are numerous and well known. They include but are not limited to: fragmentation of habitat, increased risk of landslides, sedimentation of streams, introduction of noxious weeds, human garbage including biological and toxic waste, and increased risk of human-caused fires.

We hope that this proposal will not include the construction or reconstruction of any roads, permanent or temporary. To the contrary, the goal of restoration can best be accomplished through the decommissioning of unneeded roads. We quote the North Fork Nooksack Watershed Analysis:

According to the ROD (B-31), the most important restoration opportunities are those that: control and prevent road-related runoff and sediment production; restore the condition of riparian vegetation; and restore in-stream habitat complexity. This emphasis is very appropriate for the North Fork Nooksack River since it is a Key Watershed which provides refugia for at-risk anadromous salmonids and resident fish species. It is important to protect the quality of existing refugia and to restore potential refugia areas that have been degraded.³

In light of this direction, we are also concerned about the proposed new road construction to connect Roads 3132 and 3120-035 within LSR. The environmental analysis should address how this would benefit LSR habitat.

In addition, care should be taken during the replacement of the Thompson Creek bridge to protect roosting bats that may be utilizing the old bridge.

Late Successional Reserve

The majority of the area to be logged is designated as LSR under the Northwest Forest Plan (NFP). All vegetation manipulation treatments proposed for the forested areas of LSRs must “protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth related species.”⁴ As previously stated, we do not believe this proposal meets that criterion.

³ https://www.fs.usda.gov/nfs/11558/www/nepa/113769_FSPLT3_5312720.pdf p. 5-11

⁴ Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (ROD), April 1994, p. C-9

Matrix and Riparian Reserve

We question the need for additional creation of early seral habitat, which is abundant on State and private timberlands in the watershed. The EIS must demonstrate this need. Logging that takes place in these Matrix stands, which are in close proximity to a roadless area, should be designed to protect any large, old trees that may be present. "Stand regeneration treatments" (clearcuts) must not be used in Riparian Reserves, where all activities are required to meet Aquatic Conservation Strategy Objectives.⁵ Any commercial logging, even thinning, in Riparian Reserves reduces the woody debris available for ecosystem enhancement.

Marbled Murrelets and Northern Spotted Owls

Designated Critical Habitat exists within the planning area for both Northern Spotted owls and Marbled Murrelets, listed as threatened under the Endangered Species Act (ESA). Removal of trees, road building, and noise from heavy equipment and/or helicopter use will adversely affect these species. Surveys for Marbled Murrelets and Northern Spotted Owls must be done prior to planning of sale units. No road construction or logging activities should occur within at least 1/4 mile of nesting areas. All loud noise-generating activities should be prohibited within 2 hours of sunrise and 2 hours of sunset during Marbled Murrelet nesting season to minimize effects on these federally threatened birds, in accordance with USFS recommendations.⁶

Heavy thinning can increase shrub growth, favoring corvid populations, which prey on Marbled Murrelets. Human presence with the attendant food waste also attracts these predators, and should be mitigated by at least daily work site cleanup. The EIS must consider these impacts and mitigation measures.

According to the MBS Forest-wide LSR Assessment, this LSR is considered especially important for Northern Spotted Owl habitat.

LSR 111 [North Fork Nooksack] and 112 [South Fork Nooksack] provide important connectivity to North Cascades National Park (NCNP) since high elevation, glaciated ridges further east may deter LOS species movement. Since potential nesting habitat is limited in NCNP and spotted owl population appears low...these 2 LSRs may be important as a source population for repopulating suitable habitat in NCNP which has a higher likelihood of being unoccupied than large areas of continuous habitat.⁷

Fish

The North Fork Nooksack River and Canyon Creek are home to ESA-listed Puget Sound Chinook salmon, Steelhead and Bull Trout; as well as Coho (listed as a Species of Concern), Pink, and Chum salmon. Logging and road building, particularly over such a large area, will have adverse impacts on water quality and fish habitat by increasing sediment and elevating stream temperatures. Conducting these activities in Riparian Reserves will intensify these effects and prevent the attainment of Aquatic Conservation Strategy Objectives.

Other Wildlife

⁵ Ibid, p. C-31-32

⁶ https://www.fs.fed.us/psw/publications/long/1998_long_disturbance.pdf

⁷ Mount Baker-Snoqualmie Forest-Wide Late Successional Reserve Assessment, September 2001, p. 29

Effects on other important birds and wildlife, including but not limited to Bald Eagle, Pileated Woodpecker, neotropical migrants, grizzly bear, mountain goat, gray wolf, lynx, and fisher must be thoroughly evaluated in the environmental review as well.

Tier 1 Key Watershed and Potential Wild and Scenic Designation

The North Fork Nooksack River is a Tier 1 Key Watershed. This designation is given to watersheds that serve as refugia and are crucial for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species. They are designated areas that either provide, or are expected to provide, high quality habitat.⁸

The North Fork Nooksack River is also listed as a potential Wild and Scenic River under the Northwest Forest Plan. Under NFP MA 5B, Potential Scenic Rivers, “The goal [of this classification] is to protect from degradation the outstandingly remarkable values and wild, scenic, and recreational characteristics of rivers and their environment. Timber management is at less than full yield to meet visual quality objectives.”⁹ “Full yield” for LSR means thinning, so if any logging is done in the Wild and Scenic River corridor, it should be very light.

Climate Change and Carbon Sequestration

The large volume of wood to be removed in this proposal would have a significant effect on carbon reserves. An EIS is necessary to adequately evaluate the effects of this loss. Furthermore, this proposal will increase carbon emissions through the logging, hauling, and milling of trees. We are dismayed that the Forest Service scoping letter makes no mention of this issue whatsoever.

In summary, we feel that the forest stands in the North Fork Nooksack watershed are recovering naturally and are best left alone. If this project is to go forward, however, it is imperative that the Forest Service fully evaluate its effects with an EIS. We look forward to further opportunities for involvement as planning proceeds.

Thank you for your consideration of our comments. Please address future communication regarding this project to Kathy Johnson, Forest Practices Chair, forest@pilchuckaudubon.org.

Sincerely,



Brian Zinke
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⁸ ROD, p. B-18.

⁹ Cited in the South Fork Lower Stillaguamish Watershed Analysis, August 1996, p. 1-10