Conservation Northwest
Keeping the Northwest Wild

May 23, 2022

Greta Smith, District Ranger
Darrington Ranger District, Mount Baker Snoqualmie National Forest
1405 Emens Ave N, Darrington, WA 98241

Re.: North Fork Stillaguamish Landscape Analysis Project – Scoping Comments

Dear Ranger Smith,

On behalf of Conservation Northwest (CNW), please accept these scoping comments on the North Fork Stillaguamish Landscape Analysis. We write in support of the project and offer some questions and recommendations to consider while compiling the Environmental Assessment (EA).

Conservation Northwest has a 30-year history of successfully leveraging funding and public support to protect, connect, and restore habitat and wildlife in the Pacific Northwest. We represent over 17,000 members and supporters dedicated to conservation and recovery action in our state. Our success is owed in large part to our practical allegiance to science and policy, and commitment to collaboratively work with managers, scientists, user groups, industry and other stakeholders to develop and implement durable restoration plans and projects; this includes our service on several forest collaborative groups across the state, though not on the Darrington Forest Collaborative.

Our roots are based in the North Cascades where we have been advocating for healthy transboundary watersheds and forests since 1987. We support efforts on the Mt. Baker-Snoqualmie National Forest (MBSNF) to restore ecological resiliency, watershed function and habitat conditions for wildlife populations at landscape scales. We also recognize the value of tribal and public access for cultural and recreational opportunities. We care deeply about this landscape, its vast wilderness, connected habitat, and wildlife and human populations that it sustains.

INTEGRATED RESTORATION APPROACH

The MBSNF extends over 140 miles north to south and covers an area of approximately 1,724,000 acres. 47% of this area is designated Wilderness; 31% Late Successional Reserve (LSR); 9% Matrix; 38% Riparian Reserve; 6% Adaptive Management Area; and 7% is Withdrawn from timber management. Although over 60% of MBSNF stands within Reserves are at least 200 years old, less than 60% of the project area on Forest Service land is considered old growth, and there remains a lack of complex old growth forest and complex pre-forest conditions on the MBSNF due to past timber harvest. Large-scale restoration plans such as the North Fork Stillaguamish Landscape Analysis Project are needed to improve forest health and resilience, especially amidst our quickly changing climate. These large-scale plans are best approached by integrating vegetation management projects, watershed restoration projects, Access and Travel Management projects, and Tribal and public partnerships, addressing forest and First Foods restoration, road removal, riparian and aquatic

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health, trailhead repair and other recreation needs simultaneously – thank you for coalescing these naturally integrated resources and needs within this planned project.

During the public meeting on May 18, 2022, we sincerely appreciated Ranger Smith setting the context of this project as one that aims to first restore forest health and resiliency, and that the volume of timber removed from the project area is a by-product of ecological-health objectives.

FOREST TREATMENTS

The scoping document speaks to the need to enhance "…early seral stages and forest openings as needed to support wildlife forage and species biodiversity, where appropriate" (p.6). We understand "where appropriate" is being assessed using percent slope (<35%), riparian corridors, tree height (canopy closure), and elevation (winter range must be <2400 ft elevation). Please also consider the spatial and temporal scale of landscape-level conditions when considering the location of early seral habitat. How is "as needed" being assessed? What is the collared elk data telling you about use within and outside/adjacent to the project area? How are the elk using surrounding private and DNR timber lands? Please quantify and illustrate the need for an increase in elk winter range within the project area, and where the landscape is best suited to maintain complex early seral forest openings within the future range of variability.

The project is seeking a Forest Plan Amendment that will remove the requirement for a study plan that would outline how various methods of silvicultural treatments for timber management would be evaluated and monitored on study plots within the Mountain Hemlock Zone (MA 19) because current management objectives have shifted away from timber production within this zone to huckleberry restoration and enhancement (p. 8). Huckleberry restoration and enhancement is being considered anywhere within the project area "where conditions are suitable" (p. 12). Please describe "suitable conditions" for huckleberry growth and maintenance. Please identify the best places within the project area to sustain huckleberries long-term, including why MA 19 may be one of them.

We note that 50% of the project area (up to 30,730 acres) is proposed for terrestrial vegetation treatment and categorized as follows:

- 31% Commercial Thin (up to 13,787 plantation acres and 5,478 Riparian Reserve acres)
- 19% Non-commercial Thin (up to 8,662 plantation acres and 2,803 Riparian Reserve acres)

The use of both commercial thinning and non-commercial thinning is proposed to accomplish LSR objectives, timber and elk winter range objectives, and Riparian Reserve objectives. We note that proposed treatment acres have an upper limit but there is no minimum number of acres to be treated. A range of acres treated is needed in order to ensure treatments are sufficient to move the landscape toward desired ecological conditions. In the same vein, the proposal suggests there be no tree diameter restriction in order to be able to treat according to stand condition at implementation

and the need to move the landscape toward a desired condition (p. 9). This is flawed because a) just as thinning/veg treatment areas must have a range (min/max) in order to meet focal species needs and ecological objectives, so too must tree size/age be within a range (min/max) in order to meet focal species needs and ecological objectives and b) without a maximum DBH, it leads the reader to believe there has not been robust analysis of the stands within the project area. Is there data to suggest that there are too many mature and old trees (80+ years old) for the landscape to sustainably hold, or that their presence would limit the move toward a late-successional and old-growth forest ecosystem? This seem unlikely since less than 60% of the project area on Forest Service land is old growth forest.

We understand that LSR designation and/or standards and guidelines for LSR may be reconsidered in the Finney Adaptative Management Plan (p. 9) and ask what specific aspects of the LSR standards and guidelines may be reconsidered, and if, upon reconsideration, they would be consistent with the currently required LSR standards and guidelines?

To achieve LSR objectives, the project proposes to use variable density thinning (VDT), primarily in stands less than 80 years old, and thin to a "…density appropriate to the site-specific plant association" (p. 9). Please share the variety and extent of plant associations existent within the project area and explain how species shifts due to climate change are incorporated into the project planning to account for terrestrial and aquatic wildlife needs and desired ecological outcomes. We note that "… most stands would be thinned from below" and ask what thinning method would be used if not thinned from below, and what would be the criteria by which the thinning method is chosen?

Harvest in Riparian Reserves is only acceptable if the treatment is needed to attain Aquatic Conservation Strategy objectives (NWFP C-32). A properly functioning Riparian Reserve that provides adequate shade, large woody debris recruitment, habitat connectivity, and refugia for aquatic species will be at least 80% intact ((NMFS and USFWS Matrices, Biological Assessment Preparation Manual, January 2019). In an effort to restore species composition and structural diversity of riparian plant communities, there are 5,478 acres of commercial VDT and 2,803 acres of non-commercial VDT proposed within Riparian Reserves. The document states that VDT thinning in Riparian Reserves would "…include the components of LSR emphasis" (p. 10), but the thinning activities bulleted on page 10 indicate VDT commercial thinning on 2,777 Riparian Reserve acres with timber/elk winter range emphasis, and VDT non-commercial thinning on 154 Riparian Reserve acres with timber/elk winter range emphasis. Since the objective of Riparian Reserves is to "…protect the health of the aquatic system and its dependent species," (NWFP ROD p. 7), it is difficult to reconcile how thinning with timber/elk winter range emphasis in Riparian Reserves will benefit aquatic species and achieve ACS objectives as required by the Northwest Forest Plan (NWFP Standards and Guidelines B-11).

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We request that Riparian Reserve locations expected to be altered are identified in EA and the effects of these changes be quantified. Please include things such as:

- stream bank condition (<90% stable = at risk)
- change in peak/base stream flows
- increases or decreases in the drainage network density
- the concentration of disturbance in unstable or potentially unstable areas
- the connectivity of Riparian Reserves (<80% connectivity = at risk)

We look forward to reviewing the VDT acreage range and proposed locations for harvest.

The proposal identifies the need for additional analysis that reconciles the restoration of late successional and riparian habitat components within the Finney AMA, and the variable retention harvest (VRH) intent to create openings suitable for ungulate foraging and pollinator habitat (p. 9). The EA will need to very clearly articulate how and where VRH will be used to achieve LSR and riparian habitat objectives as minimum 5 acre openings would appear to be inconsistent with LSR objectives to "…maintain a functional, interactive, late-successional and old-growth forest ecosystem" (NWFP ROD p.6). We look forward to reviewing the VRH acreage range and proposed locations for harvest.

The EA would benefit from clarity (perhaps in the form of a table) regarding the differences between VDT that emphasizes LSR, VDT that emphasizes timber/elk winter range, and VDT taking place in Riparian Reserves. We note that VDT in stands up to 120 years for timber/elk winter range will need to be defensible using both western and Indigenous science. Likewise, clarity regarding the differences between VRH that emphasizes LSR, and VRH that emphasizes timber/elk winter range is needed. As noted above, from an ecosystem function and legal perspective, VRH that emphasizes LSR is difficult to reconcile, and proposed treatments will need to clearly link to focal species needs (i.e. Northern Spotted Owl and Marbled Murrelet) and ecological objectives and outcomes.

The EA would benefit from clarity regarding how VDT skips and gaps and their desired spacing will be accomplished in harvested units. Similarly, clarity is needed regarding how VRH openings, especially in LSR, will be placed on the landscape to achieve ecological objectives such as improving the connectivity of large old-forest patches.

Here is one example from the Little Crow Silviculture report prescription for clearcut/natural regeneration harvest – shared as an example of prescriptive detail:
Keep the best 50 early seral species, ie. Western larch, Douglas-fir, western white pine, per acre and thin around 50'. Throughout rest of stand thin down to 150±50 trees per acre, favoring western larch, Douglas-fir, western white pine, western red cedar. Biomass utilization if possible. Create sinuous-shaped clumps and gaps where possible to promote spatial pattern. Keep as much as 20% of stands as skips from .2 to 2 ac. Create as much as 20% of stands as gaps

ranging in size from .2 to 2 ac. Note gaps are not necessarily considered "patch cuts." Leave low density of early seral species in gaps (Little Crow Silviculture Specialist Report pg. 50).

Another example from the Little Crow Silviculture report prescription for harvest in even-aged stands:
Within treated areas, retain all trees ≥ 25" diameter at breast height (dbh), Van Pelt Douglas-fir and western larch ≥7. Within treated areas, retain as much as 30% as no treatment areas, or complex patches. Create gaps in as much as 20% of the treated area ranging in size from .1 to less than 10 acres. Note gaps are not "patch cuts." Retain low density of early seral species in overstory. In remainder of treated area, use "ICO Method" to promote spatial pattern. Pattern should be clumpy, generally thinning from below with free thinning to promote diversity in size classes. Retain 80 ± 20 square feet of basal area. Overall canopy closure weight-averaged to be 40 to 60%. Use fire to reduce fuel, and recruit snags to meet wildlife objectives (Little Crow Silviculture Specialist Report pg. 53).

The proposal correctly anticipates future natural disturbance within the project area and suggests, for example, that blowdown areas may be cleared to "…mimic historic tribal management conditions suitable for a variety of cultural and natural resources" (p. 9). If possible, please share more about what is included in "a variety of cultural and natural resources." How are natural disturbances (and the possible management of) being counted toward desired ecological outcomes? For example, if models suggest there will be approximately 100 acres of blowdown over the next 15 years, how are those acreages being included in VRH calculations?

Please explain in greater detail how the project would go about exchanging LSR allocated lands for non-LSR allocated lands for the management of old forest. For example, would this be guided by connectivity values to better connect large patches and decrease edge contrast?

We note that prescribed fire and cultural burning are not included as management tools within the scoping proposal (there is one mention of possible broadcast burning for huckleberry restoration on p. 8, and one mention of underburning on p. 12), and encourage their addition in the EA (cultural burning in consultation with local Tribes). Fire (after mechanical thinning and/or instead of mechanical thinning) is one of the most ecologically valuable forest health management techniques we have in our toolbox and yet federal, regional, and/or forest policies make it consistently difficult to implement. We welcome conversations and creative solutions that will help alleviate prescribed or cultural burning bottlenecks, particularly on "wet" forests such as the MBSNF where fire is especially beneficial for managing elk forage units and enhancing huckleberry openings.

The proposal states that in Condition Based Management, "[d]ecision points, based on conditions at the time of implementation, would be used to help lead to the desired condition" (p. 8) and we appreciate the inclusion of this important criteria. For example, trees identified for harvest should be aged and sized at the time of implementation/treatment, and not at the time of planning.

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ROADS AND AQUATIC CONDITIONS

There are approximately 484.7 designated road miles within the project area and the project proposes to use 49% of these available roads to haul timber, with use divided as follows among maintenance levels: 29% of ML1; 30% of ML2; 42% of ML3; 27% of ML4; and 121% of ML5, indicating the project will permanently or temporarily add 3.1 miles of ML5 roads to the system.

The scoping document states that "[m]ost system roads would remain the same after project implementation" (p. 13). This diagnosis would effect a missed opportunity to right-size the watershed's road system to match aquatic health needs and Forest Service road maintenance capacity. A properly functioning watershed should have a maximum road density of <2 miles per mile squared, and no valley bottoms (NMFS and USFWS Matrices, Biological Assessment Preparation Manual, January 2019). The scoping document notes that there are sections of the North Fork Stillaguamish River watershed that are non-functioning or impaired (p. 5). Please identify and quantify this impairment. We note that at least 1.1 mile of the North Fork Stillaguamish River running north and south of the junction at Crevice Creek is 303(d) impaired water as indexed by Section 303(d) of the Clean Water Act. How many miles of road exist per mile squared within each watershed within the project area (North Fork Stillaguamish, Upper Deer Creek, Segelsen Creek, and Upper North Fork Stillaguamish)? The EA would benefit from a road density matrix that calculates and quantifies the impact of the pre-project and post-project road prism on aquatic health within the project area. This will help ensure that riparian and in-stream restoration actions proposed in the scoping document (p. 14) match the need to restore aquatic and watershed health to a properly functioning state, after the project's completion.

There is an estimated 25 miles of non-system/unclassified roads that will be used temporarily for timber haul during the project. The scoping proposal states that existing and new temporary roads will be "rehabilitated post project" (p. 13). Does this mean decommissioned?

Within the EA, please calculate the annual dollar amount it will take to maintain the road system proposed to exist once the project is completed. What funding streams or mechanisms will be used to pay for this maintenance? What additional Forest Service and/or contractor capacity will be added to ensure this maintenance?

TRIBAL KNOWLEDGE AND RESERVED TREATY AND CULTURAL RIGHTS

We are grateful to read that the Forest is working collaboratively with tribal co-managers to protect important tribal cultural areas and provide access to ensure the meaningful exercise of tribal reserved treaty and cultural rights. We hope these work sessions are going well.

We encourage the Forest to solve natural resource challenges using Traditional Ecological Knowledge/Indigenous science, and to increase and advance Tribal and Indigenous values, knowledge, and perspectives within planning and operational activities, particularly regarding prescribed fire and cultural burning practices.

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We would like to learn more about the forest-wide elk recovery planning (p. 5) on the MBSNF and how the Forest is working with Tribes and organizations such as the Rocky Mountain Elk Foundation to ensure western and Indigenous science-based outcomes are achieved.

RECREATION

The MBSNF is and will continue to be a high recreation-use forest serving non-motorized and motorized users. The scoping document does not appear to recognize motorized users or motorized access outside of confining vehicles to parking spaces and creating barriers to cross-country travel. We recommend that there be some outreach to local motorized user groups (possibly to Bellingham-based Rainier Ridge Rams or the Everett-based Timber Tamers), both of whom advertise responsible motorized use on public lands, and could provide insight to motorized use within this landscape which is helpful during specialist negotiations and planning.

The scoping document focuses on non-motorized uses including "hiker/pedestrian… bicycle, pack and saddle…" but does not account for electric bicycles (e-bikes) whose presence is increasing exponentially on the landscape. Will the North Mountain Trails area accommodate e-bikes? We recommend that there be outreach to the Backcountry Horsemen regarding trails systems that intend to concentrate (e-)bicycle and pack/saddle users. We would also recommend outreach to the Backcountry Horsemen and the Evergreen Mountain Bike Alliance during the mixed-use transportation analysis.

There is a need to create a multi-use recreation plan that guides appropriate use and provides improved recreation experience while safeguarding natural resources to improve watershed health. This cannot be done sustainably without non-motorized and motorized user input and negotiation. We offer our assistance regarding use impacts and resource protection, as well as connections to diverse user groups.

SOCIO-ECONOMICS

The scoping document does not provide any socio-economic information. This seems especially important because Adaptive Management Areas were "…designed to develop and test new management approaches to integrate and achieve ecological, economic, and other social and community objectives" (NWFP ROD p. 6). We understand the MBSNF is currently scheduled to harvest approximately 10 million board feet annually (J. Marszal, personal comm. May 2022). How are those board feet calculated and what is included? How many million board feet are expected as result of this project? What proportion would this project provide toward the annual MBSNF goal of 10 million board feet harvested?

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CLIMATE CHANGE

It is remarkable that the scoping document does not reference climate change or associated impacts. We trust the EA will use the North Cascades Climate Change Vulnerability Assessment (Raymond et al. 2014 and currently being updated) to help anticipate climate-related events including decreased snowpack, earlier peak flows and declines in summer stream flows, increased landslides, sediment movement, and flooding. The EA would benefit from identifying potential locations of climate refugia within the project area and at the watershed scale. That is, what areas are expected to be most resilience to the effects of climate change, where valuable physical, ecological and socio-cultural resources will persist?

We note that there are 303(d) listed impaired waters within treatment areas. Healthy waters are critical to the health of fish and aquatic species, but also to downstream communities. It is critical that management decisions (not just design criteria and BMPs) mitigate increasing climate-related threats to water quality, infrastructure, property, and public safety for surrounding communities and visiting recreationists.

We understand that methods to calculate and account for carbon sequestration loss or gain are being decided at a national level (K. James personal comms. March 29, 2021). We look forward to when this USFS policy is available for use in planning.

MONITORING

Very little is said about monitoring in the scoping document. A condition-based management project taking place in an Adaptive Management Area will require a robust monitoring plan with dedicated long-term investments. The EA would benefit from the inclusion or summation of implementation, effectiveness, and validation monitoring recommendations from each specialist. While a more detailed monitoring plan could be drafted collaboratively outside the EA, the EA would benefit by having a monitoring section that includes:

- what you are already planning to do
- what else needs to be done and how it might be prioritized
- where the gaps are in capacity and funding
- which monitoring activities the IDTeam will be a part of
- how the sale administrator will be involved in monitoring activities

Project planners might consider doing a pre-bid review by a collaborative monitoring group to help add redundancy and build confidence in the project.

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CONCLUSION

We are grateful to see this next big project being proposed on the MBSNF and that a restorative, integrated, full watershed approach is being pursued.

We believe a thorough Environmental Assessment that matches proposed treatments with desired ecological outcomes should -

- Identify the range of treatment acres and how and where to locate the spatial arrangement of patches according to focal species needs, connectivity corridors, modeled climate refugia, and the landscape's future range of variability.
- Clearly articulate how treatments with LSR emphasis will achieve LSR objectives and outcomes (and/or how "reconsiderations" are to be understood).
- Clearly articulate how treatments within Riparian Reserves will achieve Aquatic Conservation Strategy (ACS) objectives and outcomes.
- Include prescribed fire and/or cultural burning as a management tool, in addition to mechanical thinning.
- Include a road density matrix that calculates and quantifies the impact of the pre-project and post-project road prism on aquatic health within the project area, and also calculates the financial cost to maintain the proposed post-project road network.
- Include a monitoring section that helps to identify needs (gaps) and priorities.

Sincerely,

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Cc: Dave Werntz, M.S., Science and Conservation Director