



March 28, 2022

Aaron Stockton, District Ranger
Naches Ranger District, Okanogan-Wenatchee National Forest
10237 Highway 12, Naches, WA 98937

Re.: Little Naches Upland Restoration Draft Environmental Assessment

Dear Ranger Stockton,

On behalf of Conservation Northwest (CNW), please accept these comments on the Little Naches Upland Restoration (LNUR) Draft Environmental Assessment. We write in support of proposed Alternative 2 (Proposed Action), modified to protect Riparian Reserves, quantify treatment patch sizes, and identify how and where to adjust the spatial arrangement of patches according to focal species needs and the landscape's future range of variability.

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.

We support efforts on the Okanogan-Wenatchee National Forest (OWNF) 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, and the importance of providing jobs and associated economic benefits to communities. We care deeply about this landscape, its vast wild places, connected habitat, and wildlife and human populations that it sustains.

COMMERCIAL HARVEST

We understand there are 99 acres (85 Upland acres, and 14 Riparian Reserve acres) to be thinned in support of future instream restoration projects, elsewhere referred to as "source wood," "stream restoration tree source units," or "aquatic restoration tree sourcing." We question the need to harvest and stockpile instream wood from Riparian Reserves (please see RIPARIAN RESERVES section below).

We understand "thinning through diameter range" is used primarily in uneven-aged management. Please explain the ecological reason to "thin through diameter range" in the project's commercial stand, instead of "thin from below."

The LNUR Silviculturist report states that in the Pacific Silver Fir forest type, designation by prescription (DxP) will be used to remove trees to approximately 160 TPA while maintaining 40% canopy cover for NSO dispersal habitat, and will remove species in this order of priority: grand fir, Pacific silver fir, western hemlock, noble fir, Douglas-fir, western larch, western white pine, and western red-cedar between 7" DBH to 25" DBH. This method is thought to coarsely distribute larger diameter trees across the landscape in larger groups and random spaces.

In the Western Hemlock/Grand Fir forest type, DxP parameters will include the removal of priority species including grand fir, western hemlock, diseased western white pine, and Douglas fir between 7 and 24.9" DBH trees. FVS modeling indicates removing an average 90 ft² of basal area will initially reduce total percent canopy cover from 79% to 46% five years post implementation.

In the Douglas-fir, Noble fir and western white pine plantations, flagged trees will be removed to attain an average of 70 BA/ft², with 40% canopy cover maintained in NSO CHU.

The draft EA adds that un-thinned areas (combinations of .25 acre skips or larger) will be added to meet levels specified for Matrix lands (pg. 18). Page 31 of the draft EA states that treatments that create openings should retain reserve islands and clumps in openings that may exceed 5 acres. The draft EA labels its approach as "moderate retention regeneration harvest" without defining what that means or looks like on the ground (EA pg. 15). Openings greater than 5 acres would be considered a regeneration harvest and would need to be carefully located on the landscape (i.e. outside of NSO critical habitat, on south facing slopes and ridges, etc.).

The EA would benefit from clarity regarding the size of skips and gaps, and how desired spacing will be accomplished in commercial units. For example, the Little Crow Silviculture report prescription for clearcut/natural regeneration harvest includes:

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).

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Another example from the Little Crow Silviculture report prescription for harvest in even-aged stands:

Within treated areas, retain all trees $\geq 25''$ 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).

NON-COMMERCIAL HARVEST

There appears to be incongruence between the LNUR Silviculture report which recommends decreasing total trees per acre from approximately 600-800 to 200-300 in non-commercial units by cutting trees $< 7.9''$ DBH, and the draft EA (page 20/21) which aims for 75 – 150 TPA in previous clear-cut and natural regeneration silvicultural systems and 50 – 75 TPA for overstory or partial overstory removals (average between 50 and 150 trees per acre or based on specified spacing) by cutting trees $< 7''$ DBH. What is the ecological reason to thin to 50 – 150 TPA as compared to 200-300 TPA, particularly in LSR habitat?

We note that a significant amount of non-commercial harvest will take place in LSR, or what will be LSR once the TNC lands are acquired by OWNF. The treatment map appears to show a great deal more non-commercial harvest activity on TNC lands as compared to adjacent FS LSR lands. Does the project intend to treat a greater proportion of TNC lands as compared to adjacent FS units within LSR? Knowing that the TNC and LSR lands are dominated by YFMS and SECC, how do the models show that treating a larger proportion of the TNC lands make sense from a landscape scale forest health perspective?

We appreciate that, according to the LNUR Silviculture report, focal characteristics of retained trees will include well-formed bole and canopy of dominant trees $> 7.9''$ DBH, trees without sign of disease or insect infestation, and those trees suited to a drier, hotter climate and are fire adapted (i.e. western larch, Douglas-fir and western white pine). The draft EA states that species-specific harvest will naturally ensure a spatial pattern resembling historical configurations (pg. 21). Has this been modeled? Can this be quantified?

The EA would benefit from clarity regarding the size of skips and gaps and how desired spacing will be accomplished in non-commercial units. For example, will the ICO (individuals, clumps and openings) method¹ be used in non-commercial units?

¹ <https://www.nwfirescience.org/sites/default/files/publications/ICO-Manager-Guide-version-3-1.pdf>

CONNECTING PRESCRIPTIONS TO ECOLOGICAL OUTCOMES

The EA would benefit from linking its commercial and non-commercial prescriptions to specific focal species and to findings from terrestrial and aquatic landscape evaluations. For example, the Uplands Landscape Evaluation for NSO appears to indicate that there exist a high number of small NSO habitat patches that are near each other, and that the size of the largest patch is approximately 4% of the total defined landscape area. In the future, we can expect fewer, increasingly fragmented small patches of NSO habitat to persist on the landscape, and the diversity of those patch types (patch richness) to decrease over time (currently at about 20 different kinds of patches per 10,000 acres).ⁱ How do the treatment prescriptions (patch size and spatial patterning) account for these expected changes to NSO habitat connectivity?

Page 64 of the draft EA states that “For that portion of ECN-5 (northern spotted owl CHU) that occurs within the project, up to 12% of dispersal or 10% of combined dispersal and suitable habitat could be removed over a 5-year period...” Conversely, page 66 states that “the proposed action would retain all late-successional, NSO suitable habitat...” Will the proposed treatments cause the loss of NSO suitable habitat in Matrix stands? LSR stands? Neither? Both?

Page 64 of the draft EA states that “Complex patches of non-treated areas will remain in these blocks of [commercial] treatment. Retained cover along riparian reserves, in uplands, and in dispersal corridors will reduce the level of impacts to dispersal habitat linkages for spotted owl...” How big will the complex patches of non-treated areas be, where will they be located, and what will they include, besides Riparian Reserves, uplands and dispersal corridors?

In summary, how will the commercial and non-commercial treatment prescriptions in the draft EA better connect NSO dispersal and NRF (nesting, roosting, foraging) habitat? It is difficult to determine effects on terrestrial and aquatic species without more detailed prescriptions, especially regarding patch size and spatial patterning.

FIRE

We appreciate that up to 300 acres of Matrix harvest may benefit from mastication, and pile burning will be conducted in commercial and non-commercial harvest units. We recognize that pile burning significantly decreases smoke (draft EA pg. 42) and may have been the chosen slash treatment type due to the relatively moist project conditions, short burn windows, and the overall limited capacity to do broadcast burns on the OWNF (G. Torretta personal comms. March 18, 2022). We note that prescription burning/broadcast burning was recommended in the Little Crow Silviculture report and Little Crow EA, and strongly support its use to complete fuels treatment after mechanical thinning.

ROADS

Thank you for including 8.2 miles of road decommissioning and eleven associated culvert removals through this EA (draft EA pg. 59); (twelve culvert removals in Table 16 on pg. 61).

There are over 52 miles of unauthorized road within the LNUR project area and a riparian road density averaging 2.32 (2011 Little Naches Aquatic Restoration Strategy pg. 15). We regret the missed opportunity to close and decommission priority roads as recommended in the Little Naches Aquatic Restoration Strategy (pg. 14) through this project's NEPA process. We look forward to working with the District on the Travel Analysis Plan (TAP) and using the Region 6 Aquatics EA to remove or rehabilitate roads that are degrading aquatic habitat and security habitat for terrestrial species.

RIPARIAN RESERVES

The draft EA indicates that overstory and small tree removal in Riparian Reserves will be done using ground-based equipment (pg. 16-17). However, page 56 says harvest in Riparian Reserves would be implemented using only hand tools and chainsaws. Please confirm which method of harvest will take place within Riparian Reserves.

We understand there are 14 acres within Riparian Reserve to be thinned in support of future instream restoration projects (referred to in different parts of the draft EA as "source wood," "stream restoration tree source units," or "aquatic restoration tree sourcing"), and that 300 feet of temporary road will be built within Riparian Reserve to access timber. We question the need to harvest and stockpile instream wood from Riparian Reserves.

We note that "trees will be selectively harvested to reduce impacts to stream shade, avoid erosion of streambank soils and sediment delivery to streams, and that BMPs will be implemented if there is concern for sedimentation to stream" (draft EA pg. 56). We read that "...short term degrade of riparian reserves from temporary road construction would be restored in the long term" (draft EA pg. 63), but struggle to reconcile this with the NWFP which states under the Riparian Reserves section "Do not use mitigation or planned restoration as a substitute for preventing habitat degradation" (NWFP C-37).

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). If trees will be taken from Riparian Reserves and relocated for in-stream needs elsewhere, please detail the ACS objectives that will be achieved in the harvested Riparian Reserve, and why the trees stockpiled for in-stream work cannot be taken from elsewhere in the project area outside of Riparian Reserves.

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If the project is unable to move these 14 harvest acres out of Riparian Reserve and include them in the 85 Upland acres instead, a buffer of 300' (not 100') from fish bearing streams would be preferred. We note that Unit A and GGG are on the south side of FR 1906 which creates an additional, beneficial stream buffer. Unit CC-1 and FFF do not have this benefit and harvest in these Units will need to be mindful of sedimentation to Alder Creek and the Little Naches River, both of which are fish bearing. Perhaps Unit FFF could be harvested only on the north side of the ML1 road that divides it (outside of the Riparian Reserve).

Finally, this paragraph combines non-commercial and commercial thinning and is unclear (draft EA pg. 56):

Non-commercial tree thinning would cause no direct or indirect effects to water quality, streamflow, stream shading vegetation, or stream temperature from commercial tree thinning activities in support of wood placement projects for stream restoration in 14 acres of riparian reserve. Noncommercial thinning would not occur in the core 100 feet of riparian reserves and would be implemented using only hand tools and chainsaws.

Is non-commercial thinning occurring within Riparian Reserves? Page 21 of the draft EA states "Noncommercial treatment is not proposed in riparian reserves."

SOILS

Page 28 in the draft EA states that "No more than 20% of an activity area will have detrimental soil conditions after the completion of purchaser's operations." How big is an "activity area?" Is one harvest unit considered an "activity area?"

We understand that design criteria and BMPs will help mitigate impacts to soil erosion and water yields² and appreciate that road decommissioning will increase soil productivity on 7.3 miles of system road in the long term (draft EA pg. 54). We note that there are some commercial harvest units proposed on steep, south facing slopes directly above a cutthroat trout and Coho salmon bearing stream (South Fork Little Naches River) that may require more rigorous mitigation and harvest only during the driest months (Units L, T, J, and M). We appreciate the soil monitoring recommendations on Page 55 and hope they are implemented. If the staff soil scientist is limited by capacity, perhaps supplemental monitoring could be done by collaborative partners and trained citizen scientists.

LARGE TREES

In the past, the Forest Service defined trees greater than 20" DBH as "large," but we are increasingly seeing projects that identify trees up to 24.9" DBH as "large" and trees greater than 25" DBH as "extra large." We would benefit from understanding the reason for this change.

² We read that, at a watershed scale, the removal of up to 60% canopy is unlikely to effect changes in hydrologic timing and flow and note that it is good to see monitoring results from the Huck Timber Sale being applied to this project.

Primarily due to fire suppression and grazing exclusions, the regeneration and release of shade-tolerant conifers, especially where past logging targeted old pine, DF, and western larch in dry and moist mixed conifer forests, has resulted in DF and GF trees that are easily within the size range of large trees over 20 inches, and many of them represent the fuel ladders that threaten current forests (P. Hessburg personal comms. Feb. 16, 2022). In part, this is why we prefer a “thin from below” prescription as compared to a “thin through diameter range” prescription.

At the same time, we recognize that large, and especially large and old trees, have an outsized ecological role to play in long-term forest health (i.e. carbon sequestration, hydrologic redistribution, wildlife habitat, mycorrhizal importance, etc.), exist in low quantities on the OWNF, and take a long time to grow.

We note that, just as not all large trees are old, not all old trees are large. The project proposes that a diameter cap of 24.9” DBH will ensure large and old legacy trees will be retained (draft EA pg. 16, 66). We are concerned that a diameter cap above 21” DBH may jeopardize critically valuable old trees less than 24.9” DBH. We request that the diameter cap be decreased to 21”. If there are a large number of trees greater than 21” DBH within the project area (the LNUR Silviculture report would suggest otherwise) and decreasing the diameter cap would prevent stand densities and spatial patterning that equate to improved ecological resilience, we suggest that old trees would be better protected using additional morphological characteristics besides DBH (i.e. the timber planner uses the Van Pelt rating system to “score” and flag old trees during layout, or the harvesters have additional morphological characteristics they can use to identify old trees during treatment, regardless of DBH).

It is worthwhile to note that a considerable amount of good NSO habitat on the OWNF is within Matrix lands and, conversely, a fair amount of LSR (now in plantations) is not good NSO habitat. As climate change intensifies, it is especially important that we protect old trees, regardless of their size and location among NWFP land use allocations (LSR or Matrix).

If not done already, we recommend using the 2012 Okanogan-Wenatchee National Forest Restoration Strategy which offers guidance and sample prescriptions to address old and large trees and spatial patterning (pages 98-108).

SNAGS

We understand that no snags will be cut within Riparian Reserves or non-commercial harvest units (draft EA pg. 21) and that snags will be maintained at levels recommended by the NWFP according to forest type (draft EA pg. 17). However, we question the inclusion of “with green tree replacement” because A) it is unclear what proportion of green tree snags will be included and B) defective green trees may or may not become snags. Large old trees with a large proportion of heartwood decay more slowly and provide superior wildlife habitat (as compared to large young

trees with a much smaller proportion of heartwood that decay more quickly). Unless we are interpreting the proposed action incorrectly, we are concerned that including green trees in the level counts may inflate the actual snag numbers and will not account for the quality of snags represented on the landscape.

CLIMATE CHANGE

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 resilient 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 draft EA outside of design criteria and BMPs. The Soils and Hydrology sections do list some specific implementation and effectiveness monitoring recommendations. The Final 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 Final EA would benefit by having a monitoring section that includes:

- what are you 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

TIMELINE

We appreciate the project's timeline outlined on page 25 of the draft EA. We understand this to be a 5-year project with commercial harvest anticipated 2023-2026, commercial timber pile burning 2027-2029, and non-commercial harvest occurring 2029-2032. Would it be possible to begin non-commercial harvest sooner with the use of Stewardship Contracts? Why are there three years between commercial and non-commercial harvest? Are commercial timber pile burning and non-commercial harvest mutually exclusive?

OTHER

There are instances within the draft EA (pages 35, 45, 53) that reference effects mitigation during winter months but project activities will not be operating between November – June to protect snowmobilers' recreation experience (draft EA pg. 25). These references to winter mitigation should be explained or removed.

CONCLUSION

We are grateful to see these restoration actions included in this project:

- Plantation thinning in the LSR (improved with measured skips and gaps spatially arranged on the landscape to improve terrestrial and aquatic outcomes)
- An increase in forage and shrub cover types in the Matrix which are limited in this sub-watershed. However, we note that simply increasing forage without addressing the security habitat/roads issue is not likely to genuinely improve conservation outcomes for species such as elk and deer.
- Pile burning and mastication (though broadcast burning is preferred where conditions allow)
- 8.2 miles of road decommissioning and 11 (12?) associated culvert removals; 15 miles of FS road maintenance
- Restorative effects on aquatics listed in Table 16 on page 61

In summary, we believe the Final EA and the project's ecological outcomes would benefit from -

1. More precise guidance on patch sizes and where and how to adjust the spatial arrangement of patches according to focal species needs and the future range of variation (FRV) as impacted by climate change.
2. An explanation of the 24.9" diameter cap and if/how decreasing the diameter cap would prevent stand densities and spatial patterning that equate to improved ecological resilience in the Matrix.
3. An explanation of ACS objectives within harvested Riparian Reserves (14 acres proposed).
4. A monitoring section that helps identify needs (gaps) and priorities.

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We are excited to see more forest health work being completed in the Naches watershed. The right treatments in the right locations will more quickly restore the ecological processes necessary for long-term resilience, better preparing these forests to withstand the impacts of climate change and future fire events. Thank you for considering our comments.

Sincerely,

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

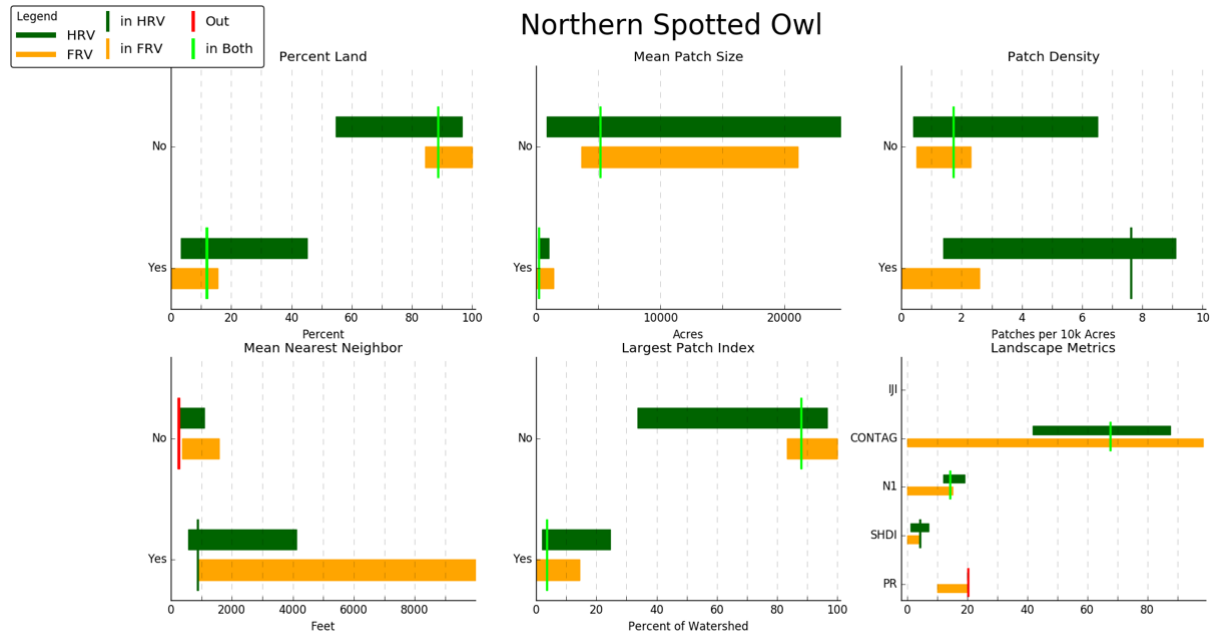
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