



May 23, 2022

Greta Smith  
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Mt. Baker-Snoqualmie National Forest  
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**RE: North Fork Stillaguamish Landscape Analysis Scoping**

District Ranger Smith,

As members of the Darrington Collaborative, we are writing to provide comments on the North Fork Stillaguamish (NF Stilly) Landscape Analysis scoping notice. We appreciate the Forest's focus on forest health and implementation of actions consistent with the NW Forest Plan (NWFP). We support the stated purpose and need in the scoping notice and appreciate the opportunity to comment regarding the specific types of management and desired outcomes that will be established as part of the environmental assessment (EA) and the project.

The Darrington Collaborative was established on July 10, 2015, as a partnership between leaders from major conservation organizations, local STEM education programs, and the community of Darrington. The goal of the group is to bring together a variety of interests, including those of the local timber industry and the conservation community, to increase ecologically sustainable timber harvests near Darrington and create jobs, while also improving and restoring the health of forests and watersheds in the area, including funding high priority aquatic restoration projects. The Collaborative is keenly focused on the Darrington area and the Darrington Ranger District but has engaged in projects throughout the Mt. Baker-Snoqualmie National Forest (MBS).

The partnership grew out of the tragic Oso slide on March 22, 2014, which killed 43 people, destroyed homes, damaged public infrastructure including a main highway, and blocked the Stillaguamish River, causing significant environmental and economic damage. Conservation and recreation organizations worked with local community leaders to highlight and promote the incredible outdoor recreation opportunities near the scenic town of Darrington and support the establishment of local STEM education efforts that have evolved into the creation of the Glacier Peak Institute.

The NF Stilly landscape is of great interest to the Collaborative due to its proximity to the Darrington community and opportunities for forest restoration thinning treatments that have the

potential to improve forest conditions moving forward. In fact, the first two pilot projects that the Collaborative worked on with the MBS were located within the planning area. Additionally, the Collaborative is interested in identifying and helping support priority aquatic organism passage (AOP) and other aquatic restoration projects on the NF Stilly landscape moving forward.

Beginning in 2018, the Collaborative filled capacity gaps identified by the MBS on the NF Stilly landscape. With approximately \$206,000 of grant funding and an additional 6,400 man hours, the Collaborative collected and provided the following base data layers for the original 30,000-acre planning area.

- North Fork Stillaguamish River Salmonid Habitat Data Compilation, Trout Unlimited, Seattle – Trout Unlimited combined the legacy data, provided by the MBS, with all available and pertinent information within the project area into a single GIS database including local stream networks as mapped in the National Hydrography Database (NHD) and other locally available stream geomorphic and hydrologic data; known fish distribution, fisheries designations (i.e., Critical Habitat), natural and artificial barriers to aquatic organism passage, and existing LiDAR data for characterizing riparian vegetation heights and conditions.
- Preliminary roads and stream intersection inventory and mapping, Resilient Forestry and Hampton Lumber Seattle/Darrington – Locating and identifying road infrastructure, field recon and database development.
- Stand Exams and LiDAR Analysis, Resilient Forestry, Seattle/Darrington and DNR, Olympia – Fieldwork, developed database, analysis of existing data, identified data needs and gaps.
- Monitoring Protocol Development and Plot Establishment with Forestry Crew Monitoring, Glacier Peak Institute and Partners, Darrington – Developed monitoring protocol, collected plot data, developed database.
- Road inventory and reporting, Roots Forestry Consulting, LLC, Arlington – The objective of the Stillaguamish Road Assessment project was to inventory the condition of selected FS road segments, totaling 111 miles. This assessment involved a technical field analysis of current conditions and access status of the selected roads. Data collected informs FS engineering staff on the amount of required maintenance and/or reconstruction; key to determining economic feasibility of management activities based on expected road costs.
- Archeology/Cultural Resource Survey, Sauk-Suiattle Cultural Resource Unit, Darrington – Washington State's Historic Preservation Office requires a Cultural Resource Survey to be performed on land surface outlined by an agency for project planning activities. The goal of the Sauk Suiattle Cultural Resource Unit was to secure compliance with the cultural assessment criteria outlined by the Section 106 process and National Historic Preservation Act (NHPA) Section 106 is triggered when a federal agency determines a likelihood that an undertaking may affect historic properties. The NHPA considers an undertaking to be any project, activity, or program with federal agency involvement, or that requires a federal approval. Cultural Resource Unit's work consisted of: (1) Literature, map, and pedestrian survey of the project area; (2) Production of relevant maps and other geographic data.

## **Support for Purpose and Need of the Project**

The Collaborative supports the stated purposes of the project and the overall management direction as articulated on Page 2:

“The proposed actions are intended to improve the health and vigor of forest habitat communities while providing renewable forest products, enhancement of fish and wildlife habitat, reducing impacts to water quality, support tribal treaty rights, and the management of sustainable recreation opportunities across the project area.”

We recognize that activities in the past have left the MBS in a state that needs restoration to rehabilitate ecosystem functions like watershed function, water quality, wildlife and fish habitat, connectivity, and a diversity of stand types. We recommend including proposed actions to improve aquatic habitat quality; maintain and restore forest vegetation composition and structural diversity; accelerate development and enhancement of old growth habitat for focal species; promote forest stand resilience to natural disturbances; support efforts to realize a sustainable road system providing access for recreation, forest management, and emergency management consistent with maintaining healthy watersheds and aquatic habitat; and provide for a sustainable supply of forest products while generating revenue to support additional forest restoration. The long-term goal is to provide a healthier, more resistant, and resilient, climate adapted and diverse forest over the next century. We have incorporated a more complete list of Collaborative priorities, proposed actions and treatments for the project area in Appendix A below.

We support the Purpose and Need’s focus on the terrestrial, aquatic, riparian, and recreational goals for the landscape. It is important to the Collaborative that the draft EA makes clear that any proposed actions are consistent with the NWFP and other applicable laws and regulations governing vegetation management and restoration activities on the MBS.

### **Land Allocations**

Approximately 85,677 acres, or 87%, of the AMA is designated as AMA with Late Successional Reserve (LSR) emphasis. There are two RARE II (Roadless Area Review and Evaluation) Inventoried Roadless Area parcels totaling about 27,837 acres located within the AMA that are also LSR. Within the AMA without LSR emphasis, the 1990 Land and Resource Management Plan for the Mount Baker-Snoqualmie National Forest allocates approximately 956 acres to deer winter range and two parcels of land totaling approximately 231 acres as ‘mature and old growth wildlife habitat’. The remainder of this portion of the AMA was allocated to Timber Management Emphasis” (p.4).

### **Support for Commercial Restoration Thinning in Late Successional Reserves (AMA with LSR Emphasis) Less Than 80 Years Old**

We appreciate the goal of the MBS to undertake a landscape level analysis that will address the condition and function of second growth stands within Late Successional Reserves (LSRs) with a stand age less than 80 years old as identified under the NWFP. Late Successional Reserves were identified for several reasons, one of them being the goal of establishing a network of late successional habitat across a broad landscape in reserves that included areas of previously harvested stands that existed in 1994. The proposed thinning as part of this project focuses, in part, on accelerating development of late successional stand characteristics in second growth stands with a stand age of less than 80 years old within designated LSRs. A large body of research demonstrates the benefits of thinning in dense plantations, including those in western hemlock forests.

We understand that achieving restoration goals for National Forest LSRs within the NF Stilly area requires the use of timber sales as the enabling mechanism. Existing funding for such restoration activities is limited and the prospect of future funding is unclear. Trees removed in restoration thinning treatments have value. They can, and should, contribute to the local rural economy.

The Proposed Action for the North Fork Stillaguamish area in the scoping document includes up to 13,787 acres of commercial thinning within plantation forests, including up to 7,829 acres in LSRs that are also concurrently designated as Adaptive Management Areas within the Phinney AMA plan area.

### **Unique Allocation and Management Aspects of the Finney Adaptive Management Area**

The planning area covers a total of 61,692 acres located within the Finney Adaptive Management Area (AMA), one of ten such AMAs designated by the NWFP in 1994. According to the NWFP Record of Decision (ROD), “These areas are designed to develop and test new management approaches to integrate and achieve ecological, economic, and other social and community objectives.” (NWFP ROD, p. 6). In general, the NWFP gives land managers more freedom to experiment with innovative, science-based management techniques in AMAs than in other areas.[1]

The NWFP assigns a different management emphasis to each AMA and requires that all AMAs have a plan that provides a shared vision and an implementation strategy. The 98,400-acre Finney AMA’s emphasis is “restoration of late-successional and riparian habitat components.” (NWFP, p. D-13). Indeed, 87% of the Finney AMA is also designated as LSR. The NWFP’s standards and guidelines for LSRs west of the Cascades generally prohibit logging in forest stands older than 80 years, but they allow commercial and non-commercial thinning in stands up to 80 years old. (NWFP, p. C-12).

The MBS completed a plan for the Finney AMA in 2011. The plan observed that past logging and road building in the Finney AMA have severely degraded stream conditions, and that the area still contains many exceptionally old forests, with about 50% of the forest stands exceeding 500 years old and 70% over 80 years old (Finney AMA plan, p. 8). In addition, the area contains a relatively large amount of Pacific silver fir forests (60%), due to the colder and wetter climate in the northwest Cascades.

The Finney AMA Plan proposed to conduct experimental forest treatments based on two “learning themes.” The first theme was to restore late-successional forests by conducting variable density thinning to increase vegetative diversity in plantations. While use of variable density thinning had been used frequently in Douglas-fir/western hemlock forests elsewhere in the region, using that thinning technique in Pacific silver fir stands would be experimental. The second learning theme was to restore riparian areas through variable density thinning.

To the extent that the MBS is interested in experimenting with treatments that would support the goal of the Finney AMA with respect to thinning in Pacific silver fir stands, thinning within riparian reserves within Late Successional Reserves, or adjusting regular standards and guidelines for Late Successional Reserve areas within the Finney AMA, it would be prudent and important to identify a subset of stands to do these experimental treatments and provide monitoring to evaluate the success. There should be stands that serve as a control to serve as a reference point for the results of the experimentation.

## **Considerations Regarding Variable Density Thinning in Late Successional Reserves (AMA with LSR Emphasis)**

While AMAs are not common, national forest lands with allocations of both AMA and LSR (referenced in the scoping document as “AMA with LSR emphasis”) are rare. In general, LSR standards and guidelines associated with LSRs must be followed even in AMAs. However, the Finney AMA is one of two AMA’s where LSR boundaries may be changed:

“Overall, management activities in all the Adaptive Management Areas will be conducted to achieve the objectives described in these standards and guidelines. Standards and guidelines for Congressionally Reserved Areas or Late-Successional Reserves must be followed when they occur within Adaptive Management Areas, except that the Adaptive Management Area plans for the Finney and Northern Coast Adaptive Management Areas may change the Late Successional Reserves in those areas. Flexibility is provided to meet objectives for Riparian Reserves and Key Watersheds. Full watershed analysis will be conducted prior to new management activities in identified Key Watersheds within Adaptive Management Areas. Standards and guidelines of current plans and draft plan preferred alternatives (with exceptions noted on page C-3 of these standards and guidelines) need to be considered during planning and implementation of activities within Adaptive Management Areas, and they may be modified in Adaptive Management Area plans based on site-specific analysis. Otherwise, standards and guidelines are to be developed to meet the objectives of the Adaptive Management Area and the overall strategy. Coordination with the Regional Ecosystem Office is required.” (NWFP Standards and Guidelines, C-22)

It will be important as part of the draft EA to clarify how these two NWFP allocations will interact with respect to the proposed management techniques. The draft plan should state whether any experimentation will be proposed with respect to standards and guidelines for AMA with LSR emphasis (i.e., general prohibition of timber harvest in LSR stands over 80 years old, guidelines related to riparian buffers within LSRs, maximum gap sizes within LSRs). The scoping notice does not clarify if all the acres with AMA with LSR emphasis would be considered for variable density thinning are under 80 years old. That should be clarified.

With respect to the opportunity provided in the Finney AMA to adjust AMA and LSR boundaries within the AMA, there could be opportunities to identify stands that would fit more consistently in AMA with LSR emphasis and others that would fit better in AMA without LSR emphasis. The scoping notice tries to suggest in theory what that might look like:

“As noted previously, LSR designation and/or standards and guidelines for LSR may be reconsidered in the Finney Adaptive Management Plan. The Forest may consider and evaluate adjusting existing LSR boundaries to include non-LSR areas for management of old forest, in exchange for management of LSR acres for other objectives within the Finney AMA. A potential example for this could be retaining portions of Deer and Elk Winter Range (MA-14) within the AMA as maturing old forest for northern spotted owls and marbled murrelet. Second growth stands in LSR would then be treated for complex early seral development to provide forage and a continuing rotation of age classes on the landscape (Scoping Notice, p.10).”

It would be prudent to identify the specific proposed adjustments relating to LSR boundaries in the EA, including justification and benefits of the proposed changes. Adjusting these boundaries after the EA or employing condition-based management to adjust them will likely raise concerns and potentially foster opposition to the broader goals of the project.

### **Support for Non-Commercial Thinning in Late Successional Reserves (AMA with LSR Emphasis)**

The scoping notice includes consideration of 8,662 acres (almost entirely in AMA with LSR emphasis) of non-commercial thinning. We support this treatment method to enhance the development of LSR characteristics in mature stands within either AMA with LSR emphasis or AMA without LSR emphasis. While noncommercial thinning treatments do not provide board feet for mills (a key goal for the Collaborative), it is an important tool to enhance and restore forest health in a variety of stands on the Forest.

### **Support for Complex Early Seral Development and Monitoring in AMA (Non LSR)**

The NF Stilly landscape has been influenced by nearly a century of management actions. As a result, the remaining national forest stands fall into four different forest types: (1) Early Seral; (2) Young; (3) Mature; and (4) Old-Growth. Compared to the historical proportional distributions of these forest types, young forests are currently overrepresented and early seral (especially complex early seral) and old-growth stands are underrepresented. Additionally, complex early seral and old-growth stands provide the greatest amount of biological diversity of the four forest types; young forests provide the least amount of diversity (Swanson et al. 2011, Gao et al. 2014, Franklin and Johnson 2018).

The Collaborative is interested in exploring opportunities to create complex early seral habitat which is characterized by greater retention of snags, large trees and downed logs and takes longer to develop into a young forest stage and other successional stages than plantation forestry models using replanting, clearing and treatment. We would strongly consider an appropriate prescription to create complex early seral habitat which is underrepresented on the landscape. Complex early seral forest supports a broad variety of wildlife species with unique habitat requirements and has many other ecological benefits such as increased hydrologic functioning, increased nitrogen fixation and coarse woody debris inputs. The creation of complex early seral habitat by creating openings and leaving legacy trees, seed trees, snags and other habitat features will provide the near-term biological diversity and habitat benefits while resetting the forest structure.

Given the goal of the Finney AMA towards late successional habitat, resetting a mature stand to complex early seral using variable density harvest would be most relevant to a stand that would otherwise not respond well to a traditional thinning application. Experimenting with complex early seral generation in the AMA generally seems warranted but it would be more relevant to prioritize this activity where it meets the appropriate criteria in an AMA stand without LSR emphasis.

The scoping notice references complex early seral in one stand that we believe would be in AMA without LSR emphasis (see below). This should be clarified in the draft EA.

“Additionally, strategically placed regeneration harvests implemented by variable retention harvest, would be considered. Generally, these would be areas with a minimum potential treatment area of 5 acres but would be adjusted based on site

specific conditions. Size and configuration of treatment areas would depend on the specific location and geographic consideration and would occur in dense, young single storied stands and be for the purpose of creating a diversity of stand age and structure across the landscape interspersed with old forest. These would be considered, provided that additional analysis shows the intent of restoring late successional and riparian habitat components remains met within the Finney AMA. The intent of these areas is to create openings suitable for ungulate and deer foraging opportunities and to provide pollinator habitat (which in turn supports healthier vegetation growth and multiple species benefits)." (NFS Scoping Pg. 9)

### **Considerations About Condition-Based Management**

The scoping notice suggested employing condition-based management as part of the North Fork Stillaguamish project to support responsiveness and flexibility between planning and implementation in natural resource management:

"CBM allows for proposed treatments to be aligned – post-decision but prior to implementation – with current conditions on the ground. It does this by focusing on collecting the right data, at the right time, for the right activity to meet the land management decision." (Scoping Notice Pg. 8)

The Collaborative recognizes that this could be an important and helpful management tool. However, the scoping notice does not clarify whether condition-based management has been used on the MBS, elsewhere in Washington State, or Region 6. That would be useful information to include in the draft EA.

As referenced earlier in this letter, the Collaborative provided significant data and survey information for the original project areas (about 30,000 acres) to address capacity gaps identified by the MBS. This data included stand exams, road surveys, stream surveys, archaeological surveys, etc. To that end, it may be prudent to apply condition-based management, as a new tool on the forest, in a targeted way rather than potentially over the entire project area. For example, condition-based management could be applied to specific stands that: (1) are more vulnerable to impacts like climate or weather events; or (2) did not have significant baseline survey data prior to scoping; or (3) are in land allocations that have more management flexibility (i.e., outside of inventoried roadless areas or in AMA without LSR emphasis).

The key to building support for a management tool like condition-based management is to experiment on a limited scale and monitor and evaluate how effective it is. If successful, the tool can effectively and more easily be expanded to larger areas and greater scope.

### **Questions about Transportation Management**

We are aware of the many challenges the U.S. Forest Service faces with declining budgets and a currently unsustainable and unaffordable road system. With nearly 400,000 miles of roads throughout the National Forest System (eight times the federal highway system), chronic underfunding and increased diversion of funds to forest fires has resulted in maintenance needs in the billions of dollars.

The MBS has been a leader in the efforts to identify a minimum and sustainable road system. The MBS went the extra mile to gather public input toward implementing the Sustainable Roads Strategy engagement process and subsequent report. We believe there are opportunities in this project to contribute to the vision of a sustainable road system where roads that provide key recreational or administrative access can be prioritized for appropriate maintenance. Additionally, unmaintained legacy roads with high aquatic risk factors that do not provide important access can be removed from the system, helping scarce maintenance dollars to be better prioritized.

Particularly using Stewardship Contracting authority, receipts from restoration thinning can be retained on the MBS and used toward the aquatic restoration of important roads. Some roads on the system that provide key recreational opportunities can be prioritized for a maintenance level (ML) 2 or higher as “open” roads to ensure that their continued use does not lead to negative impacts on the watershed. Other roads may be “stored” as ML1 after use for restoration thinning to avoid aquatic impacts before being used again for an additional restoration thinning or administrative use. Still others would be compelling targets for decommissioning after a single-entry restoration thinning has occurred in LSR stands approaching 80 years old.

Road improvements congruent with restoration goals and objectives maintain a public asset that contributes to the local rural economy and lifestyle. Investment in high-value transportation corridors on Forest Service lands can help prevent catastrophic road failures that result in massive and long-lasting water quality impacts. Such road improvements also provide broad benefit to a growing population of users both rural and urban that enjoy recreational opportunities and the public access that these roads provide.

The scoping notice proposed action indicates that 25 miles of temporary road construction and another 25 miles of non-system/unauthorized roads will be needed for log hauling and rehabilitated afterwards. The scoping notice acknowledges that old logging roads “are the primary sources of impeding water quality and fisheries habitat function in the project area,” but it does not specifically identify any roads for decommissioning or other remediation work.

Roads on the MBS are a contentious and complex issue, and for good reason. Roads deliver benefits to users and threats to watershed health. The Collaborative supports efforts to preserve road benefits while preventing or reducing their impacts. Given the concerns about achieving a sustainable road network and reducing (not adding) to the overall Forest Service road system that will require future maintenance, we would like the draft plan to clarify whether the new temporary roads and unclassified roads would be decommissioned and not added to the road system or closed (ML1 – storage).

### **Support for Identification and Prioritization of Aquatic Restoration Projects**

We support and appreciate that the MBS included priority aquatic restoration projects as part of the scoping proposed action and to be included as part of the EA. Identifying these projects with NEPA review is an important step to addressing the aquatic impacts on this landscape and encouraging design and funding moving forward.

As you know, our Collaborative has already restored over 7 miles of critical upstream aquatic organism passage in both the Sauk and Stillaguamish watersheds through a combination of Stewardship contracts and retained receipts generated by our two previous pilot sales,



Segelsen I and Segelsen II. We look forward to the opportunity to greatly scale up our aquatics work and are grateful that you have identified those needs in your scoping notice.

## **Conclusion**

The Collaborative is excited about a landscape-level project on the NF Stilly landscape that incorporates vegetation management, transportation improvements, aquatic restoration, and recreational enhancements for several years. Indeed, the Collaborative has invested significant resources to fill capacity gaps identified by the MBS around stand exams, stream, cultural and roads survey data in advance of the scoping notice. We are excited to identify opportunities within the Finney AMA that, consistent with the NWFP and other regulations, can improve the diversity, health, and long-term benefit of the forests on this landscape for clean water, wildlife habitat, tribal treaty rights and lifeways and local communities like the town of Darrington.

There are several aspects of the scoping notice that will be important to clarify prior to releasing a draft EA and we look forward to working with the MBS during the comment period and beyond to achieve that goal.

Thank you for the opportunity to comment.

Sincerely,

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Cc: Mt. Baker Snoqualmie National Forest Supervisor Jody Weil  
U.S. Senator Patty Murray  
U.S. Senator Maria Cantwell  
U.S. Representative Suzan DelBene  
U.S. Representative Kim Schrier

**Appendix A:Darrington Collaborative Priorities for the North Fork  
Stillaguamish Restoration Project**

### **Collaborative NF Stilly Priorities**

- Improve overall watershed function while also providing for resource and recreation management;
- Improve and connect fish and other aquatic species habitat quality;
- Meet demand of large flood events and allow passage for aquatic organisms;
- Support efforts to realize a sustainable road system through a mix of additional maintenance, storm proofing, culvert upgrading, bridge replacement and targeted closure or decommissioning to prevent environmental damage, reduce road density and identify an affordable road network for the future;
- Improve road conditions and access;
- Relocate high risk roads, such as those occurring within the floodplain;
- Create more diverse riparian stand structure in Riparian Reserves;
- Develop riparian vegetation and recruit large woody debris;
- Thin overstocked, dense tree stands to increase growth and vigor;
- Accelerate development and enhancement of old growth habitat for focal species
- Create wildlife habitat connectivity and corridors across the landscape thereby reducing habitat fragmentation
- Create complex early seral habitat providing openings that mimic natural disturbances such as wind and fire events;
- Increase the occurrence of different sized openings and successional patches creating a diversity of habitats, structure, and age classes;
- Stimulate sprouting and increase huckleberry production;
- Create snags and coarse woody debris;
- Creating some larger skips and gaps that can increase snowpack north facing areas to extend seasonal water flows in particular to benefit fish

### **Collaborative Proposed Actions and Treatments Summary**

NOTE: Throughout this Appendix we have deliberately not used the term “AMA/Matrix” and instead use AMA and AMA/LSR to indicate the two predominate NW Forest Plan land allocations in the Finney AMA.

#### **Instream Restoration:**

- Should occur in all allocations
- Would improve fish habitat by assisting development of large woody debris
- Would create fish cover while helping to create pooling, stream shading, surface flow infiltration
- Desired conditions would be accomplished by installing engineered log jams or placing large woody debris instream
- Would create pooling and removal of incised channels through installation of beaver dam analogs

#### **Culvert Replacement and Upgrading:**

- Would remove barriers to fish passage
- Would improve ability meet high flow demands and reduce road washout potential thereby improving water quality and aquatic habitat

#### **Riparian Area Thinning:**

- Should occur in AMA/LSR and AMA allocations
- Would develop riparian vegetation that will promote opportunities for pooling, stream shading, surface flow infiltration, and recruit large woody debris
- Desired conditions would be accomplished by timber harvest and planting appropriate species

#### Restoration Variable Density Thinning:

- Should occur in AMA/LSR and AMA allocations
- Would accelerate large and old tree development
- Would increase growth rate of large and old trees and increase stand resilience, while expediting trajectory toward late successional characteristics in LSR allocation
- Would increase the resiliency of forest stands to insects and disease
- Would decrease susceptibility to windthrow
- Desired conditions would be accomplished through timber harvest

#### Stand Improvement (non-commercial) Thinning:

- Should occur in AMA/LSR and AMA allocations
- Would occur to enhance the development of LSR characteristics in mature stands in LSR allocation
- Desired conditions would be accomplished with or without timber harvest, as land use allocation allows

#### Variable Retention Harvest:

- Should occur in AMA allocation and potentially in AMA/LSR where thinning prescriptions are insufficient to accelerate old growth development.
- Would develop complex early seral habitat supporting a broad variety of wildlife species with unique habitat requirements, in addition to increasing hydrologic function, nitrogen fixation and coarse woody debris inputs
- Would stimulate huckleberry sprouting and increase berry production;
- Would create openings and increase forage and biodiversity benefitting multiple plant and animal species.
- Would develop a mosaic of stand types on the landscape
- Would contribute some social and economic benefits to the surrounding communities
- Would develop old growth characteristics where older stands do not exhibit them and will not develop under current stand conditions
- Would serve as a fuel break and an anchor point for wildfire suppression
- Would develop pollinator habitat
- Desired conditions would be accomplished through timber harvest

#### Prescribed Fire:

- Should occur in AMA/LSR and AMA allocations
- Would extend the longevity of openings post-harvest
- Would stimulate huckleberry growth
- Would reduce wildfire risk and intensity
- Would develop early seral habitat
- Would improve forage availability
- Would improve biodiversity
- Desired conditions should be accomplished through controlled burning

#### Road and Access Improvements and Maintenance:

- Should occur in AMA/LSR and AMA allocations
- Would improve existing road conditions
- Would reduce impacts to water quality and aquatic habitat
- Would provide access for resource and recreation management, as well as for recreational opportunities

#### Road Decommissioning, Closing, Stabilizing and Road Relocation:

- Should occur primarily in AMA/LSR
- Would improve watershed function
- Would reduce overall road density
- Would decrease habitat fragmentation
- Would reduce dispersal of invasive species
- Desired Conditions would be accomplished by reconstructing or relocating high risk roads, decommissioning, closing, and/or stabilizing roads where resource damage is occurring and future access is not needed

### **Desired Condition**

Through this project, we would like the MBS to consider redirecting a portion of overrepresented young forest stands on the NF Stilly landscape into one of two desired conditions using the underlying land use allocations and existing conditions of specific stands as a starting point for treatment design. We support the overall emphasis and desired conditions of the Finney AMA Plan:

...to restore late-successional forest and riparian habitat components (USDA, USDI 1994, Page D-13)...Because this portion of the AMA is also critical habitat for the northern spotted owl and marbled murrelet, there is a desire to have stands with high crown closure by the time they reach mature and old growth seral stages. While stands are in the early and mid-seral stages, the desired condition is to maintain tree stocking levels sufficient to allow the development into late successional forest while providing horizontal and vertical heterogeneity (diversity) in forest structure. This diversity in forest structure will provide a wider range of habitat conditions for many species associated with late-successional forests. There is also a desire to provide some economic benefits to communities whose economies are strongly timber dependent.

In the short-term, increased diversity in forest structure in early and mid-seral stands will provide a wider range of habitat conditions for many species associated with late-successional forests. This is expected to result in greater species richness for plant and animal species, as well as higher abundance of those species associated with less dense forest conditions. In the long-term, the AMA will provide increased nesting habitat for northern spotted owls and marbled murrelets. Whether these conditions translate into higher populations may be dependent on other factors such as competition with barred owls and the availability of prey species for marbled murrelets in Puget Sound.

Desired conditions for the riparian/aquatic system include reducing stream temperatures in Deer Creek and decreasing the intensity of peak flows and sediment delivery in all three watersheds. Over the next 50 years these improvements in hydrology and the development of mature riparian forest vegetation are expected to increase pool frequency and depth, decrease stream width/depth ratios, decreased stream temperatures, and increase large wood frequency. These factors should contribute to recovery of viable populations of bull trout, salmon, and steelhead.

There is a desire for the AMA to contribute some social and economic benefits to the surrounding communities through vegetation manipulations designed to achieve habitat management goals of the AMA. Indian Tribes desire knowledge on the ability to increase the availability of treaty protected resources. It is also expected that there will be coordination of adaptive learning with adjacent landowners, especially the DNR (p. 15).

### **Proposed Actions and Treatment Types**

*Restoration Thinning in AMA/LSR* – In young forest stands located in AMA/LSR within the project area, we would strongly consider an appropriate prescription to maintain and accelerate large and old tree development. Thinning could be applied to increase growth rate of large and old trees already exhibiting northern spotted owl and marbled murrelet habitat characteristics and to increase stand resilience. In overstocked stands in AMA/LSR less than 80 years in age, restoration thinning will expedite the stands trajectory toward late successional habitat characteristics while providing valuable board feet to local mills and supporting jobs in local communities. Stands 70-and-80-years of age with simplified structure would be prioritized.

*Create down wood and snags in LSR*- Remove the tops from standing live trees to create snags, a requirement for northern spotted owl foraging habitat. Fell or tip trees to create down wood where needed.

*Variable Retention Harvest in AMA and AMA/LSR to provide Complex Early Seral Habitat* – We would strongly consider an appropriate prescription to create complex early seral habitat which is underrepresented on the landscape. Complex early seral forest supports a broad variety of wildlife species with unique habitat requirements and has many other ecological benefits such as increased hydrologic functioning, increased nitrogen fixation and coarse woody debris inputs. The creation of complex early seral habitat by creating openings and leaving legacy trees, seed trees, snags and other habitat features will provide the near-term biological diversity and habitat benefits while resetting the forest structure.

*Variable Retention Harvest in AMA/LSR to allow late successional characteristics to develop*  
In overstocked 50- and 60-year-old stands, where trees that developed in dense growing conditions and are likely to be weak and unresponsive to thinning, use variable retention harvest to develop open areas. Replant at a low density or patchy form to allow the new growth to develop the limby, complex crown characteristics required for NSO, Marbled Murrelet and other old growth obligate species.

*Variable Retention Harvest in AMA/Timber Management Emphasis to Provide Sustainable Supply of Timber*

Use variable retention harvesting to provide raw materials and other resources that are needed to sustain the health and economic well-being of local communities by providing a sustainable supply of timber as directed by the NWFP.

*Public Outreach and Engagement*- Develop signage (interpretive) in key areas within the project area, along with a project overview kiosk to educate the public on the ecological benefits of restoration treatments, stewardship, and collaboration, etc. Engage with the Department of Natural Resources, and other adjacent landowners for mutually supportive messaging.

## References

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