February 2, 2024

Regional Forester
U.S. Forest Service
1220 SW 3rd Avenue
Portland, OR 97204

**RE: Notice of intent to prepare an environmental impact statement (EIS): Region 5 and Region 6; California, Oregon, and Washington; Forest Plan Amendment for Planning and Management of Northwest Forests Within the Range of the Northern Spotted Owl, 88 Fed. Reg. 24 (December 18, 2023).**

Dear Regional Forester:

Thank you for the opportunity to respond to the Notice of Intent (NOI) captioned above. The American Forest Resource Council (AFRC) is a trade association representing mills, wood product manufacturers, loggers, and purchasers of public timber in the Western United States. Put another way, AFRC represents stewards of our public lands, customers, and partners of the U.S. Forest Service. We have member companies throughout the Northwest Forest Plan (NWFP) area who have been, are currently, and will be impacted by the NWFP, an amendment, and its implementation. Their expertise, employees, and equipment – and the vast, complex product supply chain of the forest infrastructure they help create, maintain, and support – are essential to achieving the forest management goals and missions of the Forest Service.

## INTRODUCTION

We're proud and privileged to advocate on behalf of a modern, sophisticated, technologically advanced, environmentally conscious, hard-working, diverse sector that is essential to the Pacific Northwest economy, achieving our shared environmental values, and providing carbon-friendly products that Americans and the world depends on every day. For the record, the forest products sector has no interest in engaging in antiquated, divisive, manufactured conflicts about "clearcutting old growth" on National Forest System (NFS) lands and reigniting the "Forest Wars" in the Pacific Northwest. *We are interested* in engaging productively to improve forest

health and resiliency, reducing the risk of wildfires, protecting communities, and providing wood products and socio-economic benefits to the American public.

The NWFP has had profound and often devastating, unintended, and unanticipated consequences for our forests, the ecological values our forests provide to society, the forest sector, the forest workforce that stewards them, timber-dependent county governments and surrounding communities, businesses, and local economies.

For a NWFP amendment to be successful and durable moving forward, it must address two fundamental questions: 1) will an amendment maintain a passive management paradigm focused primarily on species management; or implement a proactive, flexible, science-based, adaptive management paradigm that focuses on overall forest health and resiliency?; and 2) will the amendment provide clarity, predictability, and accountability in management across land use allocations to rebuild trust and creditability with the public, Tribes, impacted communities, and the businesses and workforces tied directly to the implementation of the NWFP?

We welcome the opportunity to modernize and improve the NWFP to address the forest health and wildfire crises on federal lands, to improve forest health and resiliency in the face of climate stressors, to support community well-being, and to boost socio-economic sustainability in the Pacific Northwest. To accomplish these commonly shared goals, the NWFP must be rigorously evaluated and modernized. It is within this context that we provide the following comments and recommendations.

**THE PROCESS**

Before we address the substance of the amendment and the opportunities for its improvement, we feel compelled to note our procedural concerns. Although we agree that the land management plans (LMPs) amended by the NWFP need to be updated, we disagree with the approach of using another amendment process rather than the revision process. The National Forest Management Act (NFMA) directs that forest plans "be revised from time to time when the secretary finds conditions in a unit have significantly changed, but at least every fifteen years." 16 U.S.C. § 1604(f)(5).

It's been 30 years. We've learned a lot since then. Conditions in our forests, surrounding lands, and impacted communities have changed significantly. After three decades of experience, data collection, and monitoring, the decision to pursue needed updates to address threats from wildfire resilience to climate change through a "focused" and targeted amendment rather than a revision is a missed opportunity for the forests and the public. We urge the Forest Service to reconsider this decision given the age of current LMPs and the scope of the changed conditions. When will the Forest Service, realistically, reengage in a public process and dedicate the needed

resources to revise the NWFP after completing this amendment? The Pacific Northwest should not have to wait another 30 years to make necessary and meaningful changes to land management plans governing over 24 million acres of publicly-owned, federally-managed land.

We also note while the NWFP is being amended, the Forest Service is also seeking to amend all land management plans in the United States – 128 plans – simultaneously with a focus on protecting old growth across 193 million acres. The NWFP itself is an amendment to 17 land management plans in the Pacific Northwest. This means the Forest Service is proposing to amend (NWFP amendment) an amendment (NWFP) to land management plans, while pursuing a nationwide amendment to the same management plans all at the same time.

The Forest Service should consider sequencing and prioritizing plan amendments, rather than stacking multiple plan amendments on top of land management plans. Or, more productively, the Forest Service should reconsider and initiate a NWFP revision.

## PERSPECTIVE ON THE NOTICE OF INTENT FOCUS POINTS

The changed conditions, and associated need for change, listed in the NOI are well documented; primarily in the 2018 Synthesis of Science to Inform Land Management Within the NWFP Area, routine NWFP monitoring reports, and the 2020 *Bioregional Assessment of Northwest Forests* (BioA) and its 2021 Supplement. The need for change identified in the NOI has compelled the Forest Service to focus its Amendment on the following items:

- Improvement to fire resiliency.
- Sustainability of mature and old growth forests.
- Climate change adaptation.
- Incorporation of indigenous knowledge.
- Sustainability of local communities.

We agree these focus points, and others, need improvement and modernization. Below we provide perspectives on each focus point and conclude with technical comments and recommendations. The draft environmental impact statement for the NWFP amendment must take a hard look, analyze, and respond to the below information.

### Improvement to fire resiliency

There is consensus among scientists, stakeholders, and land managers that the most significant existential threat to western forests is catastrophic wildfire (followed by mortality caused by disease and insects). This threat affects the persistence of nearly every renewable resource that the Forest Service is tasked with managing, including mature and old growth forests, a sustainable supply of timber, wildlife habitat, carbon storage, air quality, and water quality – not

to mention recreational opportunities, and protecting communities, lives, property, and infrastructure.

The Forest Service has documented this threat repeatedly, most recently in the 2022 Wildfire Crisis Strategy that proposed the ambitious goal of treating an additional 20 million acres of NFS land over the ensuing decade to address the wildfire risk. Nearly every single vegetation management project in the NWFP area over the past five to ten years includes a primary purpose of improving wildfire resiliency. Yet many National Forests continue to struggle with timely implementation at the scale, scope, and intensity that is desired. LMP factors contributing to this challenge of appropriate "pace and scale" must be addressed in the amendment if the Forest Service truly hopes to effectively bend the curve of the wildfire crisis.

While the Forest Service is unable to influence weather patterns or topography in any way that would mitigate fire behavior, it can take proactive steps to manage and reduce fuel loads. A 2021 study concluded that "fire-suppressed forests that are well outside their historical range of variability are prone to severe fire and are also preferred by many forest-dependent wildlife species. Treatments within these forests are likely to reduce severe fire extent and therefore provide greater long-term benefits to species like the spotted owl."[1] Effective fire exclusion has altered natural fire return intervals and many areas have missed two to five fire cycles resulting in an elevated level of forest biomass density. This biomass appears in many forms including small diameter trees and brush and large diameter trees. The Forest Service must remove this accumulated biomass and fuel loads regardless of its size if it wishes to create forests that are resilient to future wildfire, and it must complete this removal prior to the use of prescribed fire as a fuels reduction tool.

Another 2021 study concluded that "thinning without prescribed fire significantly reduced potential crown fire immediately following thinning and also moderated surface modeled fire behavior beginning 2–3 years following thinning. Fuel reduction and fire risk management objectives can be met with mechanical thinning alone for a number of years. Prescribed fire is likely necessary to extend the effectiveness of mechanical thinning after significant tree or shrub regeneration."[2] This study supports the need for mechanical thinning *prior to the introduction of fire*.

[1] Jones, Gavin M., et al., *Forest Restoration Limits Megafires and Supports Species Conservation Under Climate Change.* 2021. The Ecological Society of America. Front Ecol Environ 2021; doi:10.1002/fee.2450.
[2] Johnston, James D., et al., *Mechanical thinning without prescribed fire moderates wildfire behavior in an Eastern Oregon, USA ponderosa pine forest.* 2021. Forest Ecology and Management. 501 (2021) 119674.

Ultimately, the amendment must deliver changes to the NWFP that enable managers to implement mechanical thinning across a wide range of forest types to improve fire resiliency. This must occur at a large scale prior to the introduction of prescribed fire.

**Sustainability of mature and old growth forests**

AFRC supports healthy and productive forests of all seral stages, including mature and old growth, but also early seral and mid seral. However, it is puzzling to us why the proposed amendment focuses exclusively on two specific seral stages that, based on monitoring reports and routine assessments, seem to be stable or increasing.

An April 2023 report titled *Old-Growth and Mature Forest: Definition, Identification, and Initial Inventory on BLM and Forest Service Lands* made the following conclusions:

- Old-growth and mature forests combined cover *the majority of* Forest Service and BLM forest lands.
- Old-growth and mature forests are generally widely distributed geographically and across land use allocations, with old-growth covering 18% and mature forest covering 45% of forested Forest Service and BLM lands.[3]

In July 2020, the Forest Service completed a BioA to inform options to efficiently and effectively update plans. That assessment, and its 2021 supplement, concluded that:

- Old-growth forest is generally considered stable on federal lands and has increased slightly since 1993, providing the abundance, diversity, connectivity, and availability needed to support ecosystem functions and specific old-growth-dependent species in the BioA area.[4]

  (The BioA Supplement categorized the "conservation of dense, multi-layered, old growth forests" under the heading "What is Working Well.")[5]

Routine NWFP monitoring generates 5-year reports that assess the status of multiple resources for NFS land in the Pacific Northwest. The most recent, the 25-year report, was published in 2022 and assessed the status of these resources from 1994-2018. Assessment of old growth forests was analyzed in a document titled *The First 25 Years (1994–2018): Status and Trends of*

[3] U.S. Department of Agriculture, Forest Service, *Old-Growth and Mature Forest: Definition, Identification, and Initial Inventory on BLM and Forest Service Lands Fulfilment of Executive Order 14072 Section 2(b)*. 2023.
[4] U.S. Department of Agriculture, Forest Service, *Bioregional Assessment of Northwest Forests* (2020).
[5] U.S. Department of Agriculture, Forest Service, *Supplemental Report to the Bioregional Assessment of Northwest Forests* (2021).

*Late-Successional and Old-Growth Forests.* That assessment concluded that "trends in older forest are stable to slightly increasing. These levels are due to losses of older forests in dry ecosystems due to wildfire balanced by gains in older forests in moist ecosystems."[6]

In addition to these sources documenting positive trends for both mature and old growth forest, the current NWFP has an entire LUA solely dedicated to the "enhancement and protection of late-successional and old-growth forest ecosystems" called Late Successional Reserves (LSRs). It should also be noted that the vast network of riparian reserves is generally managed in alignment with LSR objectives.

On top of these two LUAs and others, there are over nine million acres of land designated by the U.S. Fish and Wildlife Service (FWS) as a Critical Habitat Unit (CHU) for the northern spotted owl (NSO). The Forest Service is not permitted to implement forest management treatments that destroy or adversely modify critical habitat (Endangered Species Act (ESA) Section 7(a)(4)). This statutory requirement typically prohibits the removal or degradation of forests that support suitable NSO habitat, which is generally aligned with mature and/or old growth forest seral stages. To adhere to the ESA, the Forest Service is also prohibited from jeopardizing the continued existence of listed species, including the NSO. Through project-level consultation with FWS, the Forest Service modifies proposed vegetation management treatments to avoid such jeopardy guided by the Revised Recovery Plan (Recovery Plan) for the NSO. These modifications often result in the deferral of treatments that would remove or degrade forests that support suitable NSO habitat.

One component of the Recovery Plan for the NSO that drives this project-level consultation is particularly relevant to the NOI's focus on mature and old growth forests. The Recovery Plan identifies 33 Recovery Actions. These Recovery Actions address a range of actions and protection measures that FWS considers during project-level consultation with federal land management agencies. One of these, Recovery Action 32, states the following:

*Because spotted owl recovery requires well distributed, older and more structurally complex multi-layered conifer forests on Federal and non-federal lands across its range, land managers should work with the Service as described below to maintain and restore such habitat while allowing for other threats, such as fire and insects, to be addressed by restoration management actions. These high-quality spotted owl habitat stands are characterized as having large*

[6] Davis, Raymond J. et al., *Northwest Forest Plan—The First 25 Years (1994–2018): Status and Trends of Late-Successional and Old-Growth Forests* (2022). Pacific Northwest Research Station, General Technical Report PNW-GTR-1004.

*diameter trees, high amounts of canopy cover, and decadence components such as broken-topped live trees, mistletoe, cavities, large snags, and fallen trees.*[7]

Every stand proposed for silvicultural treatment on every vegetation management project within the range of the NSO goes through the RA32 "filter." The Forest Service, in consultation with FWS, assesses every stand to determine if it meets the parameters in RA32 for "older and more structurally complex multi-layered conifer forests." These parameters generally align with "old growth" forests. Application of RA32 is described on page III-43 of the Recovery Plan as follows: "Maintain and restore the older and more structurally complex multilayered conifer forests on all lands (see Recovery Action 32 under Listing factor E)." Therefore, when these RA32 stands are identified, they are typically deferred ("maintained") from treatment.

Regarding application of RA32, the Recovery Plan states that "on-the-ground application of this action has been, and continues to be, implemented on the west side of the Cascades on Federal lands as part of the level 1 team consultation process since shortly after the 2008 Recovery Plan was finalized. Our recent experience reinforces that the BLM and Forest Service are aware of the conservation value of this recovery action and have been proactive and collaborative in the application of Recovery Action 32."

The documented positive trends in mature and old growth forest habitat coupled with the vast NWFP land use allocations designed to conserve late-successional forest, overlaid by a nine-million-acre CHU for a species dependent on mature and old growth forests, along with ESA requirements to protect that species, and a Recovery Plan that explicitly emphasizes the "maintenance" of "older" forests raises obvious questions: How much mature and old growth forest types (acres) should be distributed on the landscape? At what scale, and on what timeline? For example, is the Forest Service seeking to transition 100% of NFS within the NWFP area to "mature and old growth" status? Or, is it 70%? Or, 30%?

***The amendment should explicitly and specifically clarify what the Forest Service is solving for***. The Forest Service should explain what is biologically appropriate and sustainable, especially given the expected and predicted stressors of climate change and how forest types, species, and geographic distributions will vary in the coming decades.

What we do know, as stated above, there is consensus among scientists, stakeholders, and land managers that the most significant threat to western forests of all seral stages (including mature and old growth) is **catastrophic wildfire, insects, and disease**. Any amendments made to the NWFP designed to improve the "sustainability" of mature and old growth forests should be

[7] U.S. Fish and Wildlife Service. 2011. *Revised Recovery Plan for the Northern Spotted Owl (Strix occidentalis caurina).* U.S. Fish and Wildlife Service, Portland, Oregon. xvi + 258 pp

focused on proactively addressing the risk for loss of these ecosystems to catastrophic wildfire through strategic, targeted, accelerated active forest management to reduce fuel loads.

Active management strategies must include thinning, timber harvests, fuel breaks, maintained and safe transportation routes for firefighters, prescribed burning, improvements in the detection of wildfire starts, and aggressive suppression tactics near and in at-risk landscapes – just to name a few. A NWFP amendment should directly authorize and encourage the use of these tools and make their implementation easier, safer, and faster to match the scale of the wildfire and forest health crisis on NFS lands.

**Climate change adaptation**

In addition to addressing climate change adaptation, the NOI also highlights the need for climate change mitigation. Over the past several years, AFRC has provided substantive written comments to various levels of the federal government on how active forest management through routine timber harvest coupled with the storage of harvested carbon in long-lasting wood products followed by effective reforestation of harvested acres is one of the most effective ways to leverage our nation's forest resources to mitigate climate change.

There is tremendous opportunity for the Forest Service to manage portions of the NWFP area for sustained-yield timber production to store carbon in wood products and the built environment, while ensuring new forests are established to sequester and store carbon from the atmosphere. The Intergovernmental Panel on Climate Change (IPCC) 2022 6th Assessment reaffirmed the carbon mitigation benefits of sustainable forest management, the benefits of substituting wood for more carbon intensive building products, and the potential negative consequences of policies that reduce sustainable timber harvests as the demand for wood products shifts to other countries (known as "leakage") with less stringent environmental protections:

> *"[C]arbon storage in wood products and the potential for substitution effects can be increased by additional harvest, but with the risk of decreasing carbon storage in forest biomass when not done sustainably (Smith et al. 2019b). Conversely, reduced harvest may lead to gains in carbon storage in forest ecosystems locally, but these gains may be offset through international trade of forest products causing increased harvesting pressure or even degradation elsewhere (Pendrill et al. 2019b; Kastner et al. 2011; Kallio and Solberg 2018)."*[8]

[8] IPCC, 2022: *Climate Change 2022: Impacts, Adaptation, and Vulnerability.* Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp.

Active forest management is more effective in capturing and storing atmospheric carbon in forest and wood product carbon pools than a policy of hands-off management that precludes periodic harvests and the use of wood products. This notion is supported by analysis of the most recent U.S. Forest Service Inventory and Analysis (FIA) program reports that summarize differences in growth (and hence sequestration) between owner types reflecting these different management strategies.[9][10] This is also consistent with the findings and recommendations of international scientific bodies, including the IPCC. The IPCC's 4th Assessment specifically recognized the carbon mitigation benefits of forests and wood products:

> *"Mitigation options by the forestry sector include extending carbon retention in harvested wood products, product substitution, and producing biomass for bio-energy. This carbon is removed from the atmosphere and is available to meet society's needs for timber, fiber, and energy."*
>
> *"In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit."*

An NWFP amendment should focus on new direction and standards and guidelines that 1) reduce the risk of carbon emissions from high severity wildfire by expanding active forest management; 2) increase opportunities for timber harvest to store sequestered carbon in long-lasting wood products, specifically following wildfire where dead trees are no longer able to sequester additional carbon; and 3) improve the ability for managers to suppress nascent wildfires and effectively reforest areas that have burnt to avoid forest conversion, restart a new forest, and increase carbon sequestration on the NFS.

**Incorporation of indigenous knowledge**

We do not claim to be experts in this subject, nor do we claim to speak on behalf of the indigenous peoples and federally recognized Tribal members and communities who have been, continue to be, and will be impacted by the NWFP and subsequent amendment. We recognize and condemn the total failure of the federal government to meaningfully include, engage, collaborate with, and incorporate Tribes in the development and implementation of the NWFP. This must be addressed and reconciled in an NWFP amendment.

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[9] Oswalt, Sonja N., et al., coords. 2019. Forest Resources of the United States, 2017: a technical document supporting the Forest Service 2020 RPA Assessment. Gen. Tech. Rep. WO-97. Washington, DC: U.S. Department of Agriculture, Forest Service, Washington Office. 223 p. https://doi.org/10.2737/WO-GTR-97.

[10] Palmer, Marin; Kuegler, Olaf; Christensen, Glenn, tech. eds. 2019. Washington's forest resources, 2007–2016: 10-year Forest Inventory and Analysis report. Gen. Tech. Rep. PNWGTR-976. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 79 p.

The NWFP amendment must go beyond "incorporation" and "inclusion" of indigenous knowledge and wisdom. The Forest Service must provide and analyze clear, specific, tangible actions that include, but are not limited to, ***co-stewardship*** and ***co-management*** of NFS lands within the NWFP area. We offer one specific suggestion under the below discussion on Adaptive Management Areas.

**Sustainability of local communities**

The forest products sector has helped shape the shared identity, infrastructure, workforce, and rural economies across the range of the NWFP for a century and continues today. Recent analysis conducted by the Forest Economic Advisors shows that every million dollars in timber sales generates 12.3 direct jobs, 15.5 indirect jobs, and 7.3 induced jobs.[11] The direct, indirect, and induced jobs created by active forest management span multiple sectors and industries, including logging, manufacturing, transportation, engineering, road building, construction, other trades, and retail.

The Forest Service estimates that the timber industry contributes approximately $200 billion annually to the U.S. economy, accounting for a full one percent of the country's entire GDP. This productivity is directly connected to economic growth at the national and local levels, and enables additional private and public investments in infrastructure, education, and other essential public services.

Yet, the NWFP led to dramatic declines in federal timber supply (over 80% from previous levels) and – combined with other dynamic economic forces – contributed to the loss of forest sector infrastructure and related supply chains, family-wage jobs, and critical revenues that support public services such as education, roads, law enforcement, mental health, search and rescue, and public safety. Now, more than ever, the stability and growth of the forest sector and workforce are needed to help the Forest Service address its forest health and wildfire crises impacting more than 60 million acres on the NFS.

The Socioeconomic chapter of the Science Synthesis notes that "increases in federal timber supply may lead to expansion in lumber production and hiring of mill employees if timber supply is constrained, demand for lumber products is strong, and mill capacity is underutilized."[12] All three of these factors are true in the Pacific Northwest West.

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[11] Referenced in "Unveiling the Economic Impacts of the Timber Industry," January 23, 2024. Found at: Unveiling the Economic Contributions of the Timber Industry - LANDTHINK

[12] USDA, Forest Service, *Synthesis of Science to Inform Land Management Within the Northwest Forest Plan Area*. 2018. Pacific Northwest Research Station. General Technical Report, PNW-GTR-966 Vol 3.

***Supply constraints***

The timber industry in the range of the NWFP continues to be supply-constrained. Predictions for the future of this supply are not encouraging either. A 2022 report by the Beck Group considered the likely impacts to future timber supply in the Pacific Northwest as a result of multiple factors, including, but not limited to, the 2020 Labor Day fires in western Oregon impacting private industrial forestlands, the Oregon Private Forest Accord, changes to the Western Oregon Habitat Conservation plan, and changes to the Washington Department of Natural Resources sustainable harvest calculation and Habitat Conservation Plan.

The ***Labor Day fires*** in Oregon burned over 425,000 acres of private industrial forestlands, 268,000 acres of that total burned at high severity. The Beck Group Report estimated Oregon harvests will decline by seven billion board feet over the next 40 years. That's an average of 175 million board feet/year that was expected to be available to the local infrastructure. The total economic damage is estimated to be $5.9 billion with the loss of 1,925 jobs in the forest sector. These are just the economic and timber supply impacts for *one* fire season on *one* land base, and does not account for more recent fires and timber supply impacts.

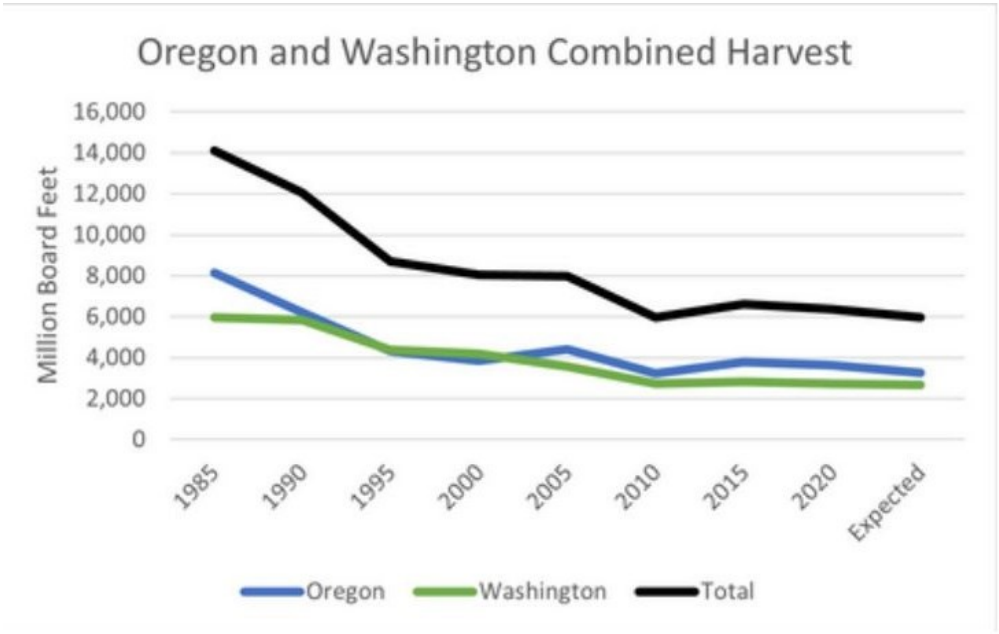
The ***Oregon Private Forest Accord***, a compromise struck by members of conservation groups and private forestland owner representatives, has and will lead to changes in riparian management on the same industrial – and other private – forestlands. The Private Forest Accord is expected to reduce timber supply from Oregon's industrial forestlands by an estimated 5-10% annually. This reduction could be as high as 270 million board feet per year, and lead to the loss of 3,000 private sector jobs.

The ***Oregon Department of Forestry*** is undergoing a process to make changes to its Habitat Conservation Plan (HCP) covering western Oregon state forests. Recent analysis suggests the final HCP could reduce timber harvests on state lands in western Oregon by 40%, with a $13-18 million annual impact to county revenues that support basic services.[13]

The ***Washington Department of Natural Resources*** has amended its Habitat Conservation Plan removing tens of thousands of productive state forestlands from management and has made policy changes to its Sustainable Harvest Calculation on state trust lands – lands that have historically provided billions of dollars in revenues to the named "beneficiaries" including schools, counties, hospitals, ports, and universities. The estimated annual impact of these changes is expected to reduce timber supply by at least 85 million board feet per year and a loss of more than 900 jobs.

[13] *Analysis from Oregon Capital Chronicle, December 2023, found at: https://oregoncapitalchronicle.com/2023/12/08/habitat-plan-for-western-state-forests-could-cost-counties-17-million-a-year-in-timber-revenue/

Combined, the Beck Group Report concluded that annual harvest in Oregon and Washington will likely fall by more than 490 million board feet per year over the next 40 years costing 5,390 jobs associated with seven mills. [14] All of these factors impacting timber supply in the range of the NWFP are occurring right now and at the same time. Here's what these trends look like:




The above factors and impacts are ***in addition*** to the significant timber supply reductions on federal lands due to the NWFP. As the Forest Service considers an amendment, it must consider and analyze how an amendment will impact timber supply and the remaining forest sector infrastructure, associated supply chains, workforces, and county revenues – and how those changes will impact the agency's ability to achieve its desired conditions and outcomes on NFS lands within the NWFP area.

***Strong Demand***

A 2022 report from Research and Markets concluded that "the North America wood products market is forecasted to grow at a compound annual rate of 6.75%, over the period 2022-2026. Factors contributing to this growth include a growing population, escalating new residential construction, surging demand for wooden furniture in offices and rising inclination of population

[14] Are You Planning for the Reduction in Northwest Timber Supply? (beckgroupconsulting.com)

towards home repair and remodeling."[15] A 2012 report prepared for the Forest Stewardship Council (FSC) predicted that annual demand for timber products will quadruple by the year 2050.[16] Technical reports from both 2010[17] and 2012[18] completed for the Forest Service determined, among other things, that:

- The forest products sector helps sustain the social, economic, and ecological benefits of forestry in the United States.
- Product revenues sustain economic benefits that include jobs and income.
- Ecological and social benefits can be supported by timber revenue to landowners that help keep land in forests and by forest treatments that can help maintain ecological functions.
- Wood products fulfill fundamental needs per capita and have remained competitive with alternate means of meeting those needs.
- US lumber production and demand is expected to increase through 2040.

As the Pacific Northwest wrestles with an affordable housing and homelessness crisis, as the country and world continue to consume and demand more wood products, and as international scientific consensus confirms the role wood products must play to achieve climate change goals at the local and global scale, the Forest Service has an extraordinary opportunity to expand the potential of national forests within the NWFP to help address these challenges. Where do we want our wood to come from?

The Forest Service should "think global and act local" by sustainably managing the NFS lands within the NWFP area under some of the strongest environmental standards in the world – and by partnering with the most sophisticated, efficient, clean, and regulated forest sector in the world – to help meet our world's demand for climate friendly wood products.

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[15] Research and Markets. *North America Wood Products Market (Softwood Lumber, Oriented Strand Board & Plywood): Insights & Forecast with Potential Impact of COVID-19 (2022-2026).* Available at: North America Wood Products Market (Softwood Lumber, Oriented Strand Board & Plywood): Insights & Forecast with Potential Impact of COVID-19 (2022-2026) (researchandmarkets.com)

[16] Indufor. 2012. Strategic Review on the Future of Forest Plantations. Report prepared for the Forest Stewardship Council. Helsinki.

[17] Ince, P.J., et al., *U.S. forest products module: a technical document supporting the Forest Service 2010 RPA assessment.* 2011. Res. Pap. FPL-RP-662. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 61 p.

[18] Skog, Kenneth E. et al., 2012. *Status and Trends for the U.S. Forest Products Sector: A Technical Document Supporting the Forest Service 2010 RPA Assessment.* General Technical Report FPL-GTR-207. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 35 p.

***Underutilization of milling capacity***

The underutilization of current milling capacity can be best illustrated by considering recent mill closures. In 2016, Rough and Ready permanently closed their mill in Cave Junction, Oregon after 90 years in business. The owners cited difficulty of acquiring logs through federal timber sales as a primary reason for closure.[19] Rough and Ready operated in Josephine County, 70% of which is federally managed. In 2019, Swanson Group permanently closed its sawmill in Glendale, Oregon. The company's President and CEO identified timber supply shortages as the primary reason for the closure. In particular, he noted the lack of supply from the federal government.[20] In January 2024, Hampton Lumber announced the closure of their sawmill in Banks, Oregon. Once again, the company cited log supply as a major factor for the closure.[21]

The Science Synthesis also notes that "increased federal timber harvest might improve the well-being of local wood products producers and private forest landowners in situations in which all local milling capacity is in danger of closing, and the addition of federal timber supply helps to keep mills above the tipping point of having to close operations." The documented flow of mill closures in the region certainly indicates that additional milling capacity is in danger of closing.

The existing milling infrastructure is supply-constrained and in danger of facing additional contractions and closures despite escalating public demand for wood products. It is also clear that these closures would have significant impacts on rural economies across the range of the NWFP. The NWFP amendment must acknowledge and address these realities as it assesses the role of timber product supply from federal forest land in the range of the NWFP.

**TECHNICAL COMMENTS AND RECOMMENDATIONS**

The Bureau of Land Management (BLM) finalized its resource management plans (RMPs) for the O&C Lands in Western Oregon in 2016. The RMPs made significant changes to federally managed forests immediately adjacent to Forest Service lands in western Oregon, are generally the same forest type, and were previously managed under the standards and guidelines of the NWFP.

The RMPs reflect the most up-to-date plan revisions on federal forests in the Pacific Northwest and went through consultation with the FWS and National Marine Fisheries Service for endangered and threatened species. While legal questions remain about the underlying statutes governing the O&C Lands (the timber-dominant O&C Act of 1937) and NFS lands (the multi-

[19] After 90 Years A Southern Oregon Mill Shuts Down - OPB
[20] Swanson to close Glendale sawmill | Local Biz | nrtoday.com
[21] Hampton Lumber's sawmill closure in Banks may ripple into city, county funding woes | News | hillsboronewstimes.com

use focused NFMA),[22] the Forest Service should adopt at least three changes in a NWFP amendment from the BLM RMPs:

1) Modify Riparian Reserve buffers consistent with the best available science.
2) Eliminate duplicative and unnecessary Survey and Manage protocols.
3) Clarify direction for land use allocations dedicated to sustained yield timber harvests.

These recommendations are discussed in greater detail below:

### *1) Riparian Reserve buffers*

A primary component of the Aquatic Conservation Strategy (ACS) in the NWFP is the establishment of riparian reserves. In practice, these reserves are implemented by "buffers" along streams and rivers that limit or prohibit active forest management. The NWFP implemented these riparian reserve buffers of two site-potential tree heights on fish-bearing streams and one site-potential tree height on non-fish bearing streams. A primary purpose for the extension of the boundary of the riparian reserve of the NWFP from one site-potential tree-height to two on fish-bearing streams was to protect and enhance the microclimate of the riparian ecosystem within the first tree-height.[23]

Since the establishment of these buffers in the NWFP research efforts have examined the effects of forest management on microclimate in riparian areas. A 2016 technical report suggested that a one tree-height buffer on fish-bearing streams would reduce most potential effects on microclimate and water temperature in near-stream environments from timber harvest in areas on the edge of the riparian reserve, particularly when some trees are retained in the harvest unit.[24] In general, most studies show that microclimatic changes in temperature and relative humidity seldom extend farther than one site-potential tree-height from the managed edge into an intact riparian buffer composed of mature forest.[25]

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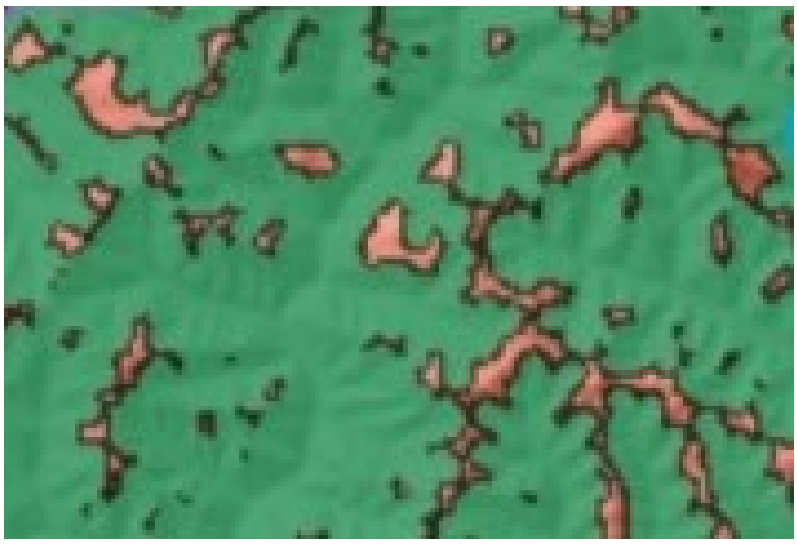
[22] *Am. Forest Res. Council v. United States*, 77 F.4th 787 (D.C. Cir. 2023), *pet. for cert. filed*, No. 23-524 (U.S. Nov. 17, 2023).
[23] U.S. Department of Agriculture, Forest Service; U.S. Department of the Interior, Bureau of Land Management [USDA and USDI]. 1994a. *Record of decision for amendments to Forest Service and Bureau of Land Management planning documents within the range of the northern spotted owl.*
[24] Reeves, Gordon H., et al. 2016. *An Initial Evaluation of Potential Options for Managing Riparian Reserves of the Aquatic Conservation Strategy of the Northwest Forest Plan*. General Technical Report PNW-GTR-937. Portland, OR: US Forest Service, Pacific Northwest Research Station.
[25] Reeves, Gordon H., et al., *The Aquatic Conservation Strategy of the Northwest Forest Plan—A Review of Relevant Science after 23 Years. In Synthesis of Science to Inform Land Management within the Northwest Forest Plan Area*, vol. 2, technical coordinators Thomas A. Spies, Peter A. Stine, Rebecca Gravenmier, Jonathan W. Long, Matthew J. Reilly, and Rhonda Mazza, 461–607. General Technical Report PNW- GTR-966. Portland, OR: US Forest Service, Pacific Northwest Research Station, 2018.

Due to the vast network of streams and rivers across the NWFP area, the riparian reserve system consumes an enormous amount of acres managed by the Forest Service. For example, a project called North Fork Smith on the Siuslaw National Forest that is currently being analyzed for density management is estimated to cover a 38,489-acre area. Of this total, the Siuslaw estimates that 32,065 acres are overlaid by riparian reserves—that's over 83% of the project area.[26] This proportion is not exclusive to this National Forest. A Willamette National Forest project called Quartzville-Middle Santiam (QMS) estimated that 59% of the non-wilderness project area was overlaid by riparian reserves.[27] A Rogue River-Siskiyou National Forest project called Stella estimated that 42% of the non-wilderness project area was overlaid by riparian reserves.[28]

What these projects illustrate is that after verifying the location of streams on the ground, the riparian reserve network is significantly larger than what was estimated at the time that the NWFP was established. In fact, due to the extent of this stream network and the size of the buffers, riparian reserves are effectively not a "network" at all, but rather a large-block LUA. The image below is from the North Fork Smith project and shows LSR in pink and riparian reserve in green.



What this indicates is that how riparian reserves are managed will largely dictate how much of the NFS is managed. If the Forest Service wants to improve fire resiliency at the necessary scope and scale, it must ensure that such improvements can and will be made across the riparian

[26] U.S. Department of Agriculture, Forest Service, *North Fork Smith project,* Siuslaw National Forest - Home (usda.gov)
[27] U.S. Department of Agriculture, Forest Service, *Quartzville-Middle Santiam project,* Willamette National Forest - Home (usda.gov)
[28] U.S. Department of Agriculture, Forest Service, *Stella project,* Rogue River-Siskiyou National Forest - Home (usda.gov)

reserve system. As illustrated in the North Fork Smith, QMS, and Stella projects, riparian reserves overlay a substantial portion of the upland forest ecosystem in addition to true "riparian" ecosystems, both of which are prone to high severity and high intensity wildfires.

A 2011 study on the effects of fire exclusion on southwest Oregon forests concluded that:

- Fire exclusion has altered the structure, composition, and successional trajectory of riparian forests in fire-prone landscapes.
- Fire exclusion has been associated with increases in tree density and recruitment of shade-tolerate species that may replace large diameter, more decay-resistant Douglas-fir trees.[29]

Most notably, this study concluded that "the current hands-off management regime for riparian forests under the NWFP will have ecologically undesirable consequences." The Forest Service must remove existing NWFP obstacles that will prolong this management regime and develop new direction.

First, the amendment should propose dropping the second site-potential tree height on fish-bearing streams. The literature cited above from the Science Synthesis supports such a change as new research indicates that "microclimatic changes in temperature and relative humidity seldom extend farther than one site-potential tree-height."

Second, the amendment should consider reducing the buffer width on small, non-fish bearing intermittent streams. Currently, any waterway that shows scour and deposition is subject to a full site potential tree height buffer. For a stream that is two inches wide and only flows water for one month a year, a buffer in excess of 150 feet is extreme. In regard to stream temperature, for streams that only run water during a couple winter months, stream shade should not be a concern. In regard to sedimentation, buffers much smaller than a full site potential tree should be sufficient. A 2006 study concluded that "vegetated buffers that are greater than 33 feet in width have been shown to be effective at trapping and storing sediment."[30] And in regard to wood recruitment, the Forest Service should be aware that under no circumstances are 100% of the trees removed in any portion of riparian buffers, providing ample in-stream wood.

Third, the amendment should modify current standards applicable to riparian reserves that discourage active management, particularly timber harvest. It is well documented that timber

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[29] Messier, Michael S., Shatford, Jeff P.A., and Hibbs, David E. 2011. Fire Exclusion effects on riparian forest dynamics in southwestern Oregon. *Forest Ecology and Management*. 264 (2012) 60-71.

[30] Rashin, E., C. Clishe, A. Loch and J. Bell. 2006. Effectiveness of timber harvest practices for controlling sediment related water quality impacts. *Journal of the American Water Resources Association*. Paper No. 01162

harvest is often a critical tool for reducing density and improving fire resiliency in overstocked forests. Current standards in the NWFP should be modified from their current structure of *discouraging* timber harvest toward ***encouraging*** active management, including timber harvest.

Standard TM-1 reads: "Prohibit timber harvest, including firewood cutting, in riparian reserves, except as described below." This Standard establishes an overarching prohibition that must be *overcome* to implement timber harvest. In other words, managers who wish to treat riparian reserves for forest health or fire resiliency face an uphill battle to **prove** that such treatments are warranted. This immediately discourages many managers from attempting to design the treatments they deem necessary. This standard should be removed and replaced with a standard that *encourages* active management for forest health and fire resiliency through all forms of treatment, including timber harvest.

We propose the following guideline to replace the existing standard:

*Utilization of all forms of vegetation management, including timber harvest, is encouraged in riparian reserves to attain ACS objectives, including improving resilience to wildfire. Such treatments should be focused on forests of all ages and origins if necessary to achieve desired end results.*

At a minimum, the NWFP amendment must take a hard look at the riparian reserve buffers implemented by the BLM in western Oregon through its RMPs. If the BLM's riparian buffer design on neighboring federal lands meets the agency's desired outcomes and future conditions and all federal environmental obligations, why wouldn't the same approach be appropriate and desired in a NWFP amendment?

### 2) ***Survey and Manage***

The Survey and Manage standard in the NWFP included management direction related to over 350 species. Survey and Manage protocols for the red tree vole (RTV), in particular, have caused significant contractions of needed vegetation management projects in western Oregon, regardless of LUA or project objectives. When the NWFP was authorized 30 years ago, little was known or understood about the RTV and its populations. Since that time, subsequent research has illuminated much about the population and habitat needs of the RTV.

A 2016 General Technical Report (GTR) suggested that "tree vole populations are naturally maintained at low densities because of adult territoriality, low reproductive potential, high rate of predation, and the low density of trees with good nest support structures." This GTR also concluded that "although tree voles occur in coniferous forests throughout much of western

Oregon and northwestern California, there was no evidence from our surveys or any of the historical data that they ever occurred at the high densities sometimes reported for other voles. Instead, they typically occurred at low densities, with clusters of nests distributed in a very patchy pattern at the landscape scale."[31]

Finally, past and ongoing project-level surveys conducted by the Forest Service in adherence to the Survey and Manage standards continue to reveal a relative abundance of RTV populations, particularly in the Cascades Range. Although specific data is not available to us, we are aware, based on our close project monitoring, that many vegetation management projects across western Oregon are significantly contracted due to high RTV nest findings and buffer placement following surveys—and these survey results only reflect populations where treatment is being proposed. It is fair to assume, based on empirical evidence, that similar, if not higher, levels of RTV populations exist in the millions of un-surveyed acres.

Despite these findings and evidence, the Forest Service is still tied to the Survey and Manage standards established in 1994 that assumed these "low population densities" were an unnatural phenomenon that needed to be addressed. These standards have, and continue, to cause significant disruption to implementing forest management treatments designed to reduce fire risk and attain other LMP objectives across all LUAs.

For example, a vegetation management project on the Willamette National Forest called Young's Rock Rigdon was designed to reduce hazardous fuels and restore dry-forest conditions in mixed conifer stands. According to the Environmental Impact Statement (EIS), to achieve these objectives, "the Forest Supervisor decided to utilize a process to provide for red tree vole persistence and efficiently implement an important dry forest restoration project on the southern part of the Middle Fork Ranger District."[32] This "process" effectively freed the Forest Service from establishing RTV no-treatment buffers that would have otherwise made these dry forest restoration treatments infeasible. Other National Forests in western Oregon have also been compelled to utilize this process to enable implementation of vegetation management treatments designed to reduce fire risk, such as the Upper Briggs Landscape Restoration project on the Rogue River-Siskiyou National Forest[33] and the Calapooya Divide Integrated Project on the Umpqua National Forest.[34]

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[31] Forsman, Eric D., et al. *Tree Voles: Distribution and Habitat Relationships Based on Recent and Historical Studies, Habitat Models, and Vegetation Change*. (2016). U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, General Technical Report PNW-GTR-948.
[32] U.S. Department of Agriculture, Forest Service, *Young's Rock Rigdon Project*, Willamette National Forest - Home (usda.gov)
[33] U.S. Department of Agriculture, Forest Service, *Upper Briggs Landscape Restoration Project,* Rogue River-Siskiyou National Forest - Home (usda.gov)
[34] U.S. Department of Agriculture, Forest Service, *Calapooya Divide Integrated Project,* Umpqua National Forest - Home (usda.gov)

The barriers to addressing fire risk through active forest management created by adherence to Survey and Manage standards for the RTV should, by itself, warrant the consideration of removing this standard. In addition, the existence of the LSR system coupled with actions in the NSO Recovery Plan have resulted in minimal management actions in existing late-successional and old growth forests that would diminish their ability to provide high quality RTV habitat. If this amendment proposes ***additional*** standards to protect ***more*** old growth habitat, then the preservation of these Survey and Manage standards should be deemed obsolete. The 2016 GTR previously cited, asserted that "in western Oregon and northwestern California, red tree voles will likely continue to thrive in the extensive areas of old forest on federal lands that are currently protected by the Northwest Forest Plan"[35]

The Forest Service must transition away from a management paradigm guided by species-management and toward a paradigm guided by habitat management and overall forest health and resiliency. The Survey and Management standards are the primary remaining relic of the species-management paradigm and as such, must be changed. We propose amending the Survey and Manage standards for the RTV and other wildlife species whose protection requirements hinder the agency's ability to effectively reduce stand densities and mitigate the risk of high-intensity and high-severity wildfire.

At a minimum, an NWFP amendment must take a hard look at eliminating Survey and Management protocols as implemented by the BLM in western Oregon through its RMPs. If the BLM's elimination of Survey and Manage protocols on neighboring federal lands meets the agency's desired outcomes and future conditions, and all federal environmental obligations, why wouldn't the same approach be appropriate and desired in a NWFP amendment?

As an alternative, the Forest Service should at least consider formalizing a set of exemptions for surveys. These exemptions came about through a stipulation order that was approved by the district court under Rule 60(b) amending paragraph 3 of the court's previous January 2006 injunction order. *See Nw. Ecosystem All. v. Rey*, No. 04-844-P, 2006 WL 44361, at *1 (W.D. Wash. Jan. 9, 2006). Thus, this October Stipulation modified the Court's original January Injunction Order and controls.[36] *See also Cascadia Wildlands v. Bureau of Land Mgmt*., No. 6:12-CV-00095-AA, 2012 WL 6738275, at *3 (D. Or. Dec. 21, 2012) (holding that the Overlook Project fell within one of the exemptions).

[35] *Id.*
[36] The Forest Service's Regional Ecosystem Office acknowledges Pechman exemptions. *See* https://www.fs.usda.gov/r6/reo/survey-and-manage/.

Known as the "Pechman Exemptions," the Stipulation identified the following four general categories of exemptions from the 2001 Survey and Manage Standards and Guidelines, including pre-disturbance surveys and known site management:

1. Thinnings in forest stands younger than 80 years of age;
2. culvert replacement/removal;
3. riparian and stream improvement projects; and
4. hazardous fuel treatments applying prescribed fire for noncommercial projects.

Although, as stated above, we strongly recommend the elimination of the Survey and Manage Standards and Guidelines, formalization of these exemptions would at least maintain the status quo and allow some active management to occur unencumbered by this Standard. The Forest Service could even consider expanding these exemptions. For example, adding a fifth exemption criteria of *commercial and non-commercial treatments to mitigate fire risk and improve fire resiliency in dry forest ecosystems in stands of all ages.* Such an exemption would address the Proposed Amendment's focus on "improvement to fire resiliency" by allowing the Forest Service to effectively implement fire mitigation treatments in some of the region's most fire-prone forests. This exemption would also benefit any of those 350 species in the Survey and Manage list that do not thrive in forests burned at high severity.

### *3) Clarify direction in Land Use Allocations: Matrix*

The NWFP has largely failed on its promises and expectations on the provision of timber products. Measured in terms of Probable Sale Quantity (PSQ), the Forest Service has routinely underachieved every year since 1998. The graph below from the NWFP 20-Year Monitoring Report illustrates this trend (this graph also includes timber data from BLM managed land in western Oregon).[37]

[37] Grinspoon, E.; Jaworski, D; Phillips, R. 2015. *Northwest Forest Plan—The First 20 Years [1994-2013]: Socioeconomic Status and Trends. Report* FS/R6/PNW/2015/0006. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Region.

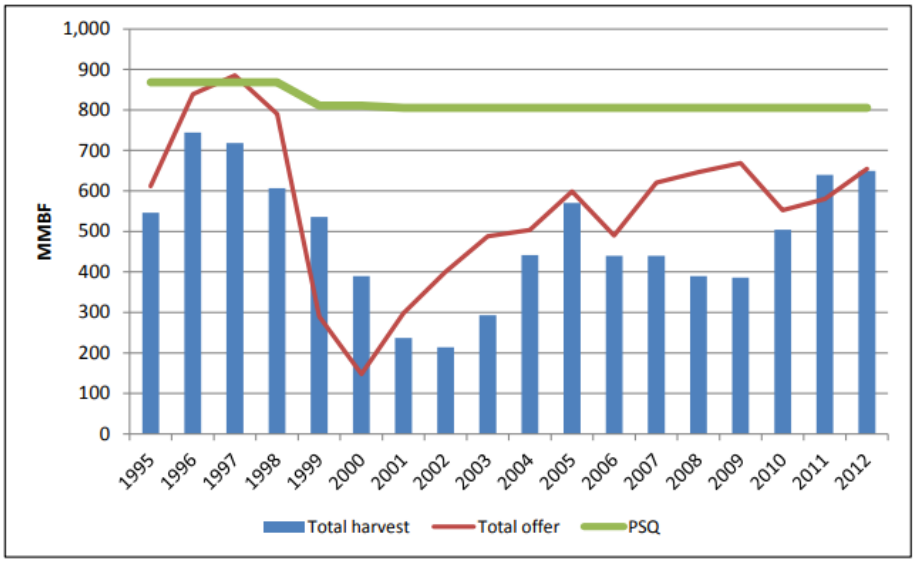



Figure 2-3: Total timber offered for sale, timber harvest and probable sale quantity (PSQ) on federal lands

Land designated as Matrix in the NWFP is the only LUA where the Forest Service can expressly manage for timber production (some Adaptive Management Areas (AMA) can also be managed for timber). However, in practice, Matrix land is not managed accordingly. In some cases, Matrix land management is even tiered to LSR direction. For example, a project called Upper Briggs Landscape Restoration on the Rogue River-Siskiyou National Forest was comprised of treatments almost entirely on lands designated as Matrix.[38] The project's Purpose and Need did not contain a single objective related to the provision of timber products. Conversely, that Purpose and Need did include an objective to "conserve and enhance habitat for the northern spotted owl and other wildlife species," which is an explicit NWFP objective for LSR. Upper Briggs is a prime example of how many Forest Service managers manage their Matrix LUA. One reason for this trend is the lack of any clear direction for the Matrix LUA. Here is how the NWFP defines the objective for the LSR LUA:

***The objective of Late-Successional Reserves is to protect and enhance conditions of late-successional and old-growth forest ecosystems.*** (NWFP Standards & Guidelines, p. C-9)
This is a clear statement and objective for the LSR LUA that provides clarity for Forest Service land managers. In contrast, the NWFP does not define any objective for the Matrix LUA. In place of an objective, the NWFP states the following under the Matrix LUA:

[38] U.S. Department of Agriculture, Forest Service, *Upper Briggs Landscape Restoration project,* Rogue River-Siskiyou National Forest - Home (usda.gov)

***Most timber harvest and other silvicultural activities would be conducted in that portion of the matrix with suitable forest lands, according to standards and guidelines.*** (NWFP Standards & Guidelines, p. C-39)

This statement does not amount to an "objective." It is ambiguous and has failed to provide clarity to Forest Service land managers on what to do on the Matrix LUA and how to do it. Page C-8 of the NWFP Standards & Guidelines even lists a large heading that reads: "Standards and Guidelines for Designated Areas and Matrix." This very heading suggests that Matrix lands are not *designated* for any purpose.

In addition to lacking any clear objective, the Matrix LUA also lacks any clear standards and guidelines that direct land managers and decision makers to conduct timber harvest and how to conduct it. However, the NWFP did establish a set of *restrictive* standards and guidelines that apply to timber harvest ***if*** such harvesting occurs (NWFP Standards & Guidelines pp. C-40-C-48). Among those include:

- Coarse Woody Debris retention
- Green tree and snag retention
- Old growth patch retention
- Wildlife buffers

Ultimately, this absence of clear objectives and standards and guidelines that encourage timber harvest has led Forest Service land managers to interpret sustained-yield timber harvest as an **optional objective**. The practical impact of this lack of clarity, predictability, and certainty is the failure to achieve modest PSQs that supply and support the local infrastructure, workforce, and communities. We propose the following amendments to address these two deficiencies.

***Clarify Objectives***

The first sentence under the "Description" heading in the NWFP for Matrix LUA reads:

*The matrix consists of those federal lands outside the six categories of designated areas (Congressionally Reserved Areas, Late-Successional Reserves, Adaptive Management Areas, Managed Late-Successional Areas, Administratively Withdrawn Areas, and Riparian Reserves).*

This leading sentence immediately characterizes Matrix land as "other" rather than an important LUA with unique objectives that warrant deliberate management actions. This sentence should be removed. As stated above, the next sentence reads:

*"Most timber harvest and other silvicultural activities would be conducted in that portion of the matrix with suitable forest lands, according to standards and guidelines."*

This sentence should also be removed and replaced with a specific objective. We propose:

*"The objective of the Matrix LUA is to provide a regular and predictable supply of timber products under a management paradigm that aligns with the principles of long-term sustained yield to attain the annual Probable Sale Quantity (PSQ), support the forest products infrastructure, and provide revenues for public services."*

***Clarify Standards and Guidelines***

Many of the existing standards & guidelines for the Matrix LUA may still be appropriate when timber harvest is implemented. What is currently missing is a standard or guideline that **requires/recommends** vegetation management actions designed for sustainable timber management. Standards for the LSR LUA include firm restrictions designed to ensure compliance with the stated objective, such as:

*"The purpose of silvicultural treatments is to benefit the creation and maintenance of late successional forest conditions."*

Accordingly, similar standards and/or guidelines must be adopted to ensure compliance with the (new) stated objective for the Matrix LUA. This is required by the 2012 Planning Rule, § 219.11(b).

We propose the following standards & guidelines:

- The primary purpose of silvicultural treatments is to provide a sustainable supply of timber.
- To attain this sustainable supply, managers should utilize a combination of intermediate thinning, uneven-aged management, and variable retention harvests to attain Matrix LUA objectives, including the attainment of PSQs.
- Variable retention harvests should be the default silvicultural treatment in "moist forests" when a stand in the Matrix LUA reaches culmination of mean annual increment (CMAI) or when managers determine the need to create early seral forest habitat in younger forests.
- Uneven-aged management, with group selections, should be the default silvicultural treatment in "dry forests" when a stand in the Matrix LUA reaches CMAI or when managers determine the need to create early seral forest habitat.
- Intermediate thinning treatments should be utilized to:

  - Improve growth and vigor of the residual stand.
  - Create heterogeneity within the residual stand.
  - Reduce the likelihood of loss due to fire, insects, and disease.
  - Modify the species composition of residual stand.
- Variable retention harvests and uneven aged treatments should be utilized to:
  - Ensure a sustainable supply of timber on the Matrix LUA.
  - Support the local forest products sector.
  - Support county governments and public services.
  - Reinitiate a healthy and diverse early seral stand.
- Timber salvage would be prioritized in the Matrix when forests are impacted by disturbance. Priority would be given to recovering damaged timber value and reforesting the affected acres.

Finally, clarity on Matrix objectives would also be improved by the renaming of this LUA. The term "Late-Successional Reserve," for example, includes its desired forest condition in its name. Conversely, the term "Matrix," in addition to being cryptic and ambiguous, does not provide any insight into desired outcomes.

We propose that the amendment include the renaming of this land base from Matrix to Harvest Land Base. The BLM made this precise change in their 2016 RMPs. Since doing so, harvest practices on the Harvest Land Base have shifted drastically from the NWFP era to include vegetation management treatments specifically designed to provide a sustainable supply of timber.

At a minimum, an NWFP amendment must take a hard look at the Harvest Land Base design system and standards and guidelines as implemented by the BLM in western Oregon through its 2016 RMPs. If the BLM's Harvest Land Base design on neighboring federal lands meets the agency's desired outcomes and future conditions, and all federal environmental obligations, why wouldn't the same approach be appropriate and desired in a NWFP amendment?

**Other Arbitrary and Inflexible Standards and Guidelines that Require Modernization**

***Address the 80-year age limit to active management in Late Successional Reserves.***
A key NWFP standard that must be modified or removed is the prohibition of timber harvest in stands over the age of 80 years in LSRs west of the Cascades and north of the Klamath Province. This is an arbitrary and unscientific standard that can impede important, needed, proactive forest management work.

In making this recommendation, the forest products industry has often been accused of "wanting to return the Forest Service to the old days" of "clearcutting old growth." That's false. The Forest Service and its experts must be able to respond to unique threats impacting dynamic, at-risk ecosystems at the appropriate time, scale, and pace. Placing an arbitrary limit on management options has not helped and will not help the Forest Service address the greatest threats to NFS lands and surrounding communities: wildfire, insects, and disease.

There is growing scientific consensus and empirical evidence that "one size fits all" standards applied across a vast range of ecological conditions is flawed. The 80-year age limit applied to the NWFP represented an *estimate* of when late seral forest conditions *generally* begin to establish. Not only does this estimate not apply to the vast range of forest types across the NWFP area, but its existence in LMPs significantly hampers the agency's ability to effectively manage certain stands to meet LSR desired conditions.

First, dry forest types that typically dominate the areas east of the Cascades and the Klamath Provinces also occur in those Provinces west of the Cascades that must adhere to the 80-year limit. Second, many mid-seral forests that would benefit from density management treatments to accelerate and improve the development of late seral habitat are over the age of 80. The mid-seral stage of forest succession does not automatically end when a stand reaches 80 years of age. Every forest stand is unique and successional stages progress at different ages dependent on a myriad of factors, including site productivity, past management activities, and forest species composition. There are many stands less than 80 years of age that do not warrant density management to meet LSR desired conditions and there are many stands over 80 years of age that do.

<u>The Forest Service must reconsider, revise, or remove the 80-year age limitation on active forest management in LSR LUAs because this limitation hinders the agency's ability to effectively reduce stand densities and mitigate the risk of high-intensity and high-severity wildfire.</u>

***Address ambiguities and provide specific guidelines for post-fire timber salvage.***
Dead trees do not sequester carbon, they can only release it over time. This fact should be considered as part of the amendment process as it pertains to the need for climate change mitigation. Following high-severity wildfire, the Forest Service can take two general approaches: passive or proactive. The passive approach amounts to leaving the dead trees on site to deteriorate and emit a portion of their stored carbon back into the atmosphere and rely on natural regeneration of trees to reforest affected acres. The proactive approach amounts to recovering dead trees, storing their carbon in long-lasting wood products (reaping the benefits of substitution outlined above), and replanting affected acres with new trees capable of sequestering additional carbon.

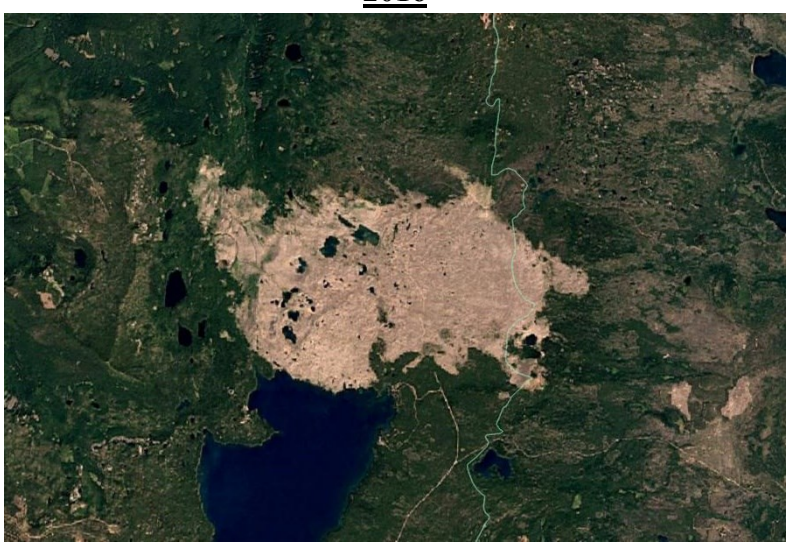
To illustrate the passive approach, we urge the Forest Service to consider the 1996 Charlton Butte Fire on the Willamette National Forest. The Google Earth images below illustrate what the fire footprint looked like prior to the 1996 fire and what it looked like in 1997 immediately following the fire.

**1996**

**1997**

Clearly, the fire footprint supported green trees in 1996 followed by the high-severity fire that consumed nearly 100% of the living vegetation. Because the footprint overlaps the Waldo Lake Wilderness area no timber salvage or post-fire replating occurred. The last image shows the fire footprint in 2016, twenty years after the fire. Clearly, the footprint remains completely brown without any semblance of vegetation capable of sequestering carbon. In fact, the landscape appears more desiccated today than twenty years ago.

**2016**



A 2015 article by NASA discusses the fire and its progression over these twenty years.[39] That article notes that:

*In five days, the Charlton Fire burned 10,000 acres of forest, killing 95 percent of its trees. Almost twenty years later, the area has barely recovered. Dead, bare trees still stand. Regrowth is stunted. Most scientists connect burned forests with decreased carbon absorption, further tipping the carbon cycle balance towards warming.*

On the other hand, a proactive approach can be illustrated by the photograph below, taken in 2022. This photograph shows land managed by the BLM following the 2016 High Pass Fire on the Eugene District. The BLM effectively recovered dead trees no longer sequestering carbon on approximately 35 acres.[40] Those dead trees were purchased by a local mill that manufactures dimensional lumber and engineered wood products—both capable of storing carbon for long durations. The photograph also shows that the 35 acres were successfully reforested with new trees that have been sequestering additional carbon since they were planted following the salvage sale.

Unfortunately, the Forest Service has largely modeled their post-fire strategies on the majority of burned acres over the past 5-10 years in the mold of the Charlton Butte Fire rather than the High Pass Fire. According to an Oregon Forest Resources Institute commissioned Report, approximately 5.348 billion board feet of timber were burnt in the 2020 Labor Day fires in western Oregon.[41] As of today, the Forest Service has salvaged less than 2 percent of this total

[39] Available at: Burned But Not Forgotten | Earthdata (nasa.gov)
[40] High Pass Timber Sale Prospectus. Available at: Prospectus-High Pass Salvage-March 2017 (blm.gov)
[41] Available at: OFRI-LaborDayFiresEconomicReport_Final Sept 2021.pdf (oregonforests.org)

for storage in long-lasting wood products. The remaining 98 percent is left to deteriorate and release its stored carbon back into the atmosphere.

This trend is disturbing and should raise serious concerns about the ability of the NFS to play a meaningful role in climate change mitigation. The Forest Service can address this concern through the proposed amendment by incorporating clear objectives and direction on post-fire timber salvage activities.

**To be clear, we are <u>not</u> recommending the Forest Service pursue timber salvage on every acre of the NFS lands within the NWFP area after a wildfire or disturbance.** The agency should prioritize recovery opportunities within Matrix LUAs, along roads and critical public access routes, and for public safety purposes. The Forest Service must also take a hard look at actions for post-fire recovery on other LUAs that ensure NFS lands are regenerated to contribute to environmental and socio-economic outcomes, climate mitigation goals, and emergency response and public safety.

One reason why the BLM was willing and able to achieve the results illustrated above on the High Pass Fire is because the RMPs contain clear direction to conduct timber salvage following disturbance events on their Harvest Land Base. Currently, there is no such direction for timber salvage on Matrix land in the NWFP. Of course, there are several restrictions that address snag and down wood retention that would apply to post-fire timber salvage, but not direction on whether or not to conduct such salvage. Therefore, we propose that the amendment include the following direction for lands designated as Matrix (or whatever future LUA is called where timber management is a goal):

*Following disturbances, prioritization should be given to the harvest of damaged and killed trees. This harvest will be designed to reduce the risk of carbon emissions from dead trees, remove hazards, and to ensure the effective reforestation of impacted acres with young vigorous trees capable of high levels of new carbon sequestration.*

***Encourage active management to restore and improve resiliency of LSRs***

As we have already discussed, the most significant threat to the persistence of any forest seral stage, including late-successional and old growth, is wildfire (followed by mortality due to disease and insects). The Forest Service should respond to this clear threat by amending the direction for the LSR LUA to *encourage active forest management rather than discourage it.* Current direction in the NWFP is applied to two provinces: West of the Cascades, and East of the Cascades and in the Oregon and California Klamath. We believe that the amendment should reassess the effectiveness of these Provinces as currently mapped and consider modernizing the existing language for all Provinces to respond to the elevated risk of wildfire.

The current LSR direction for silviculture in the "West of the Cascades" appears as follows:

*"Thinning may occur in stands up to 80 years old regardless of the origin of the stands. The purpose of these silvicultural treatments is to benefit the creation and maintenance of late-successional forest conditions."*

We have already addressed our concerns with the current 80-year age limit for active forest management. Beyond that concern, we recommend that the Amendment strengthen this direction to ***encourage*** active forest management in LSR rather than ***allow*** active forest management. We propose the following amended language:

*"Thinning should be considered as a tool to accelerate the development of late-successional forest conditions, improve existing late-successional forest conditions, or protect existing late-successional forest conditions from loss due to disturbance. Such treatments can occur in any stand that land managers deem necessary regardless of the origin of the stands."*

The Physiographic Provinces identified and mapped in the NWFP were done so as an attempt to parse out two primary forest types: moist forest and dry forest. Those Provinces are listed below under their respective forest type. The main assumption was that the dry forest Provinces experience an "increased risk of fire" and therefore warranted unique guidelines to reduce that risk.

| Moist Forest | Dry Forest |
|---|---|
| WA Olympic Peninsula | WA Eastern Cascades |
| WA Western Lowlands | OR Eastern Cascades |
| WA Western Cascades | OR Klamath |
| OR Western Cascades | CA Klamath |
| OR Coast Range | CA Cascades |
| OR Willamette Valley | |
| CA Coast Range | |

We have two specific concerns with the identification of these Provinces. First, the mapping of these Provinces was done with a broad brush. Based on our extensive monitoring across the NWFP area since its inception, we know that there are many dry forest ecosystems in the West Cascades Provinces, and probably some moist forest conditions in the Klamath and California Cascades Provinces. In particular, the Oregon Western Cascades Province, which extends all the way to the California border, has extensive amounts of dry forest ecosystems on the Rogue River-Siskiyou and Umpqua National Forests (and to a lesser extent, the Willamette National Forest). The two photographs below illustrate these conditions.

On the left is a dry mixed conifer forest with a significant ponderosa pine and oak component on the southern portion of the Willamette National Forest. This stand was treated under a project called Jim's Creek Savanah Restoration.[42] On the right is a dry forest with a dead oak component on the southern portion of the Umpqua National Forest. This stand was proposed for treatment under a project called Elk Creek Watershed Restoration.[43]

Both forest stands were identified to be in need of dry forest restoration treatments, and both were, at the time of analysis, over the age of 80 years old. Both stands were also in the Matrix LUAs, and therefore permitted to be treated. However, if these stands were in lands designated as LSR, such restorative treatments would be prohibited by current LMP direction.

Second, fire risk levels have changed since 1994. Landscapes beyond the Klamath Province are now facing higher levels of fire risk than they were 30 years ago. We propose the NWFP amendment revisit these Physiographic Provinces to permit the Forest Service to implement site-specific treatments that are unhindered by restrictions developed based on this broad-brush mapping exercise. We propose:

- The amendment partition the Oregon Western Cascades Province into a North segment and a South segment. The North segment would remain in the moist-forest category while the South segment would transition to the dry forest category.
- The amendment provide a clear variance for dry-forest ecosystems identified within the moist-forest Provinces. Such a variance could be contingent on review by the Regional Ecosystem Office.

[42] U.S. Department of Agriculture, Forest Service, *Jim's Creek Savanah Restoration project,* Willamette National Forest - Home (usda.gov)
[43] U.S. Department of Agriculture, Forest Service, *Elk Creek Watershed Restoration project,* Umpqua National Forest - Home (usda.gov)

- Amending the guideline language related to the dry Provinces to encourage active management more effectively. Specifically, the following edits to current guidelines found on page C-13 of the NWFP Standards & Guidelines should be considered and incorporated in an amendment:

  *Silvicultural activities aimed at reducing risk shall focus on younger stands and overly dense stands of all ages in Late-Successional Reserves. The objective will be to accelerate development of late-successional conditions in younger stands while ~~making the future~~ making stands of all ages less susceptible to natural disturbances.*

  *~~While~~ Risk-reduction efforts should ~~generally~~ ~~be focused on~~ ~~young~~ be applied to stands of all ages and focused on the protection of existing late-successional forest habitat. ~~activities in older stands may be appropriate.~~*

***Restore the Intent of Adaptive Management Areas, or Reallocate to new or existing LUAs***
The original vision for the Adaptive Management Area (AMA) LUA has never been realized. Designed to "encourage the development and testing of technical and social approaches to achieving desired ecological, economic, and other social objectives" these 1.5 million acres have, much like Matrix land, been managed as just another component of the LSR system.

The forest sector strongly supports the concepts and goals of adaptive forest management: test, monitoring, learn, and adjust. Adaptive management is a tenant of good stewardship and is even more relevant and needed to address the stressor of climate change. We must continue to learn and adapt our approaches on NFS lands just as these dynamic ecosystems change and adapt.

<u>We recommend three alternative approaches to future management of AMAs through a NWFP amendment</u>:

1) ***Identify*** standards and guidelines and other implementation roadblocks to achieving the original goals of the AMAs as envisioned in the NWFP, and ***simplify and clarify*** those standards and guidelines in an amendment.
2) ***Engage and include*** Tribes and Indigenous peoples to consider co-stewardship and co-management approaches within AMAs that meet the objectives and intent of the Northwest Forest Plan and tribal treaty rights.
3) ***Reallocate*** the acreage within AMAs to the LSR and Matrix land use allocations. Under this scenario, and if the Forest Service places further restrictions on Matrix LUAs through an amendment, the Forest Service should consider reallocating acreage from the AMAs to the Matrix LUAs to accomplish sustained yield timber harvest goals as recommended above. Under no scenario should an amendment further reduce the total acreage

available for sustained yield timber harvest under a NWFP amendment for all the reasons described above.

**CONCLUSION**

AFRC and its members, the forest products sector, and timber-dependent communities are ready for a new chapter in federal forest management in the Pacific Northwest. We are focused on and committed to practical, realistic, implementable solutions. We are not interested in perpetuating conflict, ideological debates not based in fact or science, or political management of dynamic forest ecosystems – all of which have dominated the public discourse over the last 30 years.

As outlined above, the NWFP amendment process provides an opportunity to address substantial current and future threats to our forests and all the values they provide to society. An NWFP amendment should modernize the current passive management paradigm focused on species management to a proactive, flexible, science-based, adaptive management paradigm that focuses on overall forest health and resiliency. If we take care of our forests, they will take care of us and all that depend on them. At the same time, an NWFP amendment must provide clarity, predictability, and accountability in management across land use allocation to rebuild trust and creditability with the public, Tribes, impacted communities, and the businesses and workforces tied directly to the implementation of the NWFP.

We have offered technical background and recommendations above to achieve these outcomes. At a minimum, the Forest Service must take a hard look, provide analysis, and offer clear rationale for accepting or not accepting these recommendations in the forthcoming draft environmental impact statement.

Thank you for your consideration and the opportunity to provide comments.

Sincerely,

Travis Joseph
President