

NWFP FEDERAL ADVISORY COMMITTEE







Subcommittees Ideas and Options Summary







Working ideas for discussion January-February 2024







The following ideas and options were developed through NWFP Federal Advisory Committee subcommittee discussions. The information provided in this document is for discussion only and does not reflect consensus ideas and recommendations of the Committee. This document may not be comprehensive and is intended to aid discussions at the January-February 2024 NWFP Federal Advisory Committee meeting.















SUBCOMMITTEE IDEAS AND OPTIONS	DETAILS PAGE	CROSSCUTS WITH					
BIODIVERSITY							
Barred Owl Removal <ul style="list-style-type: none"> Provide management direction for the USFS, in cooperation with USFWS and partners and in consultation with Tribes, to develop and implement aggressive barred owl management strategies and programs and monitoring, including lethal removal of barred owls from critical northern spotted owl habitats. Emphasize aggressive barred owl management in riparian habitats, as well as northern spotted owl areas. Conduct research to determine if barred owls may be dramatically reducing the effectiveness of riparian buffers as habitat for native biota, including amphibians, crustaceans, and fish. 	15					●	●
Beaver Restoration <ul style="list-style-type: none"> Direct USFS staff to work proactively with tribes and other partners to identify suitable beaver and BDA restoration sites on national forest lands and facilitate beaver and BDA restoration projects in suitable locations, including re-location of unwanted beavers from private lands to suitable national forest lands. Purposes of beaver and BDA restoration activities include adapting to climate change adaptation, reducing wildfire risk, improving wildlife habitat diversity, and supporting tribal treaty rights, as well as complementing the ACS objectives. Adopt a Desired Condition that recognizes the important ecological role of beavers and encourages beaver restoration. Adopt a Guideline to give preferential consideration to non-lethal methods to control beavers that are threatening infrastructure. 	16						●

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<ul style="list-style-type: none"> Designate beaver as a “focal” species, based on its functional role as an ecological engineer (maker of beaver dams and associated effects on wetlands and watersheds). Goal to work with the state on beaver management, including potential closures to commercial and recreational beaver trapping on national forest lands. 							
<p>Refugia and Connectivity</p> <ul style="list-style-type: none"> Plan components should be developed to support research, monitoring, and planning to identify and maintain climate refugia networks and connectivity corridors for sensitive terrestrial and aquatic species. Map refugia with high biodiversity value and provide plan components to ensure they are adequately protected. Consider climate refugia and connectivity needs of wildlife in project planning and in potential changes to the Reserve system (e.g. LSR, Riparian Reserves) Prioritize refugia in dry forests for restoration treatment. Recognize the need for adaptive capacity in planning and real-time decision making around habitat restoration and climate resilience. Plan components should give land managers the ability to direct management of forests to respond to climate threats in real time and enhance their ability to provide connected refugia, migration corridors, and facilitate assisted migration when appropriate. 	18		●			●	
<p>Survey and Manage</p> <ul style="list-style-type: none"> Find an efficient way to transition from the Survey and Manage program to the Species of Conservation Concern system required by the 2012 Planning Rule. Reevaluate and update the Survey and Manage species list based on the latest ISSSSP information. Determine whether the reservation of the additional older forest ecosystems will essentially eliminate the need for Survey and Manage. 	20					●	
<p>Non-Forested Habitats</p> <ul style="list-style-type: none"> Develop plan components that recognize the importance of a variety of forest and non-forested habitat types across the landscape. Plan directions should focus on future desired conditions that include non-forested habitats including woodlands, meadows, and wetlands. 	21						●







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<ul style="list-style-type: none"> • Forest Service should engage in research, planning and placed-based stewardship and restoration, prescriptions based on historic (HRV/NRV), contemporary and future desired conditions for restoring non-forest habitats and connectivity between them where appropriate. • Develop plan components to support monitoring of habitat use/quality and management of habitat for all Federal and State listed Threatened and Endangered species, Species of Conservation Concern and Tribal-identified cultural use species. • Include Local Tribes in developing management plans for non-forested habitats to ensure Tribal Knowledge is used to restore, enhance and maintain areas on National Forest lands important for cultural, medicinal, and spiritual plants and animals. • Provide clear direction to override any underlying LMPs that limits ability to shift areas that are currently forested (due to fire exclusion/plantations) to non-forested cover types. • Maintain and restore ecosystem characteristics and processes by working toward desired conditions that are compatible with the diverse landscapes across the BioA area. • Promote stewardship in (diverse) non-forested plant and animal habitats across all LUAs to restore and encourage biological diversity and ecological resilience. 							
CLIMATE							
<p>General Ideas</p> <ul style="list-style-type: none"> • Amend NWFP plan direction to explicitly acknowledge climate change effects and the need for adaptation measures (in Basis for Standards in guidelines, Section B) and develop plan components (Desired Conditions, Goals, Standards and Guidelines, in Section C) to consider climate change vulnerability and adaptation in planning and implementation of treatments and other management and climate response/mitigation activities (such as for specific habitat types). • Add a Desired Condition (with accompanying new Management Approach added in Section C) to provide land managers with necessary direction, flexibility, discretion and clear decision-making processes and actions to respond to both the projected impacts and the high degree of uncertainty that climate change brings in order to maintain social and ecological resilience, functional ecosystems, watersheds and component habitats. • Add a new subsection to include identification and development of specific thresholds for future climate driven changes to forest conditions across the NWFP area which would trigger reevaluation and possible amendment of plan components. Amend the monitoring framework to define and operationalize “triggers” for adaptive management. 	24				●	●	●







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<ul style="list-style-type: none"> • Include a Goal for the Forest Service to work in partnership with Tribes to coordinate with Tribal and National Forest climate vulnerability and adaptation plans and strategies that have been developed but not yet incorporated into Forest Service management plans and to support Tribes and Forest Districts to update plans and develop new plans and adaptive management strategies where they haven't yet been developed. • Add Desired Conditions related to enhancing the resilience of LSR and MOG stands/habitats, Tribal cultural use species and habitats, T&E and SCC species and habitats and (all 19) vegetation zones (from BioA fig 2.2) to climate change related stressors and disturbances, frequently incorporating monitoring data and best available science/TEK to design treatments, develop management actions and strategies to bolster resilience, mitigate, respond and adapt to climate change across the planning area. • Include a Goal for the Forest Service to work in partnership with NWFP Forests, Tribes and partners (academics, NGOs, forest collaboratives and community groups) on climate modeling, research, monitoring and adaptation approaches. 							
<p>Carbon Sequestration and Storage</p> <ul style="list-style-type: none"> • Establish goal to acknowledge that the ability of NWFP forests to sequester and store carbon is globally significant and an important driver of net balance of Pacific Northwest society on global climate. • Establish Desired Conditions for Moist Forest Provinces focused on building increased in-forest carbon stocks in plantations that are depressed from past intensive management and maintaining stocks in mature and old growth forests. Ensure that a Moist Forest Carbon Desired Condition maintains consistency with Desired Conditions for Ecosystem Integrity incorporating historic and future range of variability. • Establish Desired Conditions for Dry Forest Provinces focused on stabilizing existing in-forest carbon stocks from loss due to uncharacteristically severe disturbances such as fire and that maintain consistency with Desired Conditions for Ecosystem Integrity incorporating historic and future range of variability. Ensure that a Dry Forest Carbon Desired Condition does not inhibit resilience treatments with short term emissions but that will enhance long term forest carbon stability in the face of increasing disturbance. • Tiered to the Moist Forest and Dry Forest Desired Conditions for forest carbon, establish Guideline(s) that old forest and old tree protections are specific to a locations particular ecological context and include a focus on species identity and functional characteristics, in addition to tree size. 	26			●	●		







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<ul style="list-style-type: none"> Establish Standards guiding post-fire management – linked to Fire Resilience SC post fire management recommendations. 							
<p>Climate Resilient Recreation</p> <ul style="list-style-type: none"> Consider how ecological restoration and other actions pursued through a NWFP amendment can address these impacts and others on the recreation experience. (Ensure recreation is integrated into other FAC climate resilience recommendations) Conduct an assessment of climate impacts to roads, trails, and other recreation resources in need of rehabilitation following climate-related disturbances like floods and wildfires. This assessment can include management goals aimed at making infrastructure investments that are more sustainable and durable. (Consider for individual forest plan revisions and FAC implementation recommendations) Expediently restore recreation sites and reopen them to the public after climate-related events. (Integrate into FAC fire resilience recommendations, consider for FAC implementation recommendations) Consider how existing policies might be updated to improve the construction and siting of new recreation infrastructure in light of predicted climate impacts. (Ensure that existing NWFP direction does not hinder this, consider for FAC implementation recommendations) Target climate resilience strategies, including aquatic restoration, hazardous fuels treatments, and carbon forestry, in areas that are also valuable to recreationists and appropriate for outdoor recreation. When appropriate, these activities should be designed, sited, and prioritized in a way that benefits the quality of the recreation experience in a particular area. (Ensure recreation is integrated into other FAC climate resilience recommendations) 	27			●			
<p>Climate-Driven Shifts and Ecosystem Integrity</p> <ul style="list-style-type: none"> Review and confirm the spatial definition of NWFP “Dry Forest Physiognomic Provinces” and “Moist Forest Physiognomic Provinces” that are based upon the ecological characteristics and disturbance regimes (especially historical fire regimes) of the dominant forest types on the landscape, and recognize the wide variety of forest types within a landscape. Develop Desired Conditions for forest structure & composition based on Dry vs. Moist Forest Provinces and individual forest types that incorporate estimates of both “historic range of variability” and “future range of variability” as components of “natural range of variability”. Desired Conditions could describe the range of acceptable future conditions in different forest types in a way that managers understand what management options may be acceptable or needed in their local setting. 	30				●	●	







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<ul style="list-style-type: none"> Develop a Goal for research partnerships to refine projections of climate impacts on forest ecosystems in the NWFP area and support the development of “future range of variability” reference conditions. Develop a monitoring program for climate driven shifts in forest condition and ecological process (wildfire and post-fire / post-disturbance transformations, and identification of “transitioning” forest types) that could trigger a revision of the mapping of Dry Forest and Moist Forest Provinces, local forest types, and Desired Conditions for forest structure and composition to ensure ecological integrity. This includes identifying the appropriate indicators, baseline, remeasurement schedule, and thresholds for these indicators that would trigger revision of plan components. Standard/Guideline that silviculture treatments and other management activities actively consider climate change effects and include adaptation measures. Evaluate where existing land allocations don't all track well with climate adaptation and resilience (e.g., example of Kerry Kemp’s work to evaluate LSR distributions with current and future fire trends and refugia locations). Where mis-matches are identified, either revise land use allocations or revise Standards and Guidelines to facilitate appropriate management. 							
<p>Pests and Pathogens</p> <ul style="list-style-type: none"> Recommendations around adaptive management, research/monitoring, coordination, and thresholds for re-evaluation of plan components in Section E-12. For insect outbreaks and climate change, integrate considerations of insects in Desired Conditions/Standards and Guidelines for ecosystem integrity and disturbance response along with wildfire; Monitoring and Information sharing recommendations. Identify opportunities for plan components/direction related to new and invasive pests/pathogens; Relationships with other agencies (e.g. Forest Health and Protection) could be addressed via Goals in the plan. Goal or Desired Condition: Forests develop forest management components of “one health” strategies for management mitigation and abatement of pests/pathogens/disease in plants, fish and wildlife and humans. Goal or desired condition: Partnerships with Tribes for monitoring, mitigation, adaptive management and responding to pest/pathogen/invasive species threats to cultural use species and habitats. Goal: Strengthen relations between USDA FS and USDA APHIS, Tribes and State Fish & Wildlife departments regarding pest and pathogen monitoring and mitigation planning and center Tribal priorities in Forest Health Protection or through Plans. 	32					●	







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COMMUNITIES							
<p>Workforce and Economic Contributions – Timber Management</p> <ul style="list-style-type: none"> Rename the “Matrix” land base to more clearly reflect the outcome and objective of the small portion of the land base intended to support timber supply and communities. The BLM changed the name from “Matrix” to “Harvest Land Base” when it completed its 2016 Resource Management Plans for Western Oregon (O&C). While a name change may be seen as a minor issue that doesn’t alter management direction and outcomes by itself, words matter. Establish clear objectives for the Matrix, or newly named land base intended for sustained-yield forest management. The NWFP defines the objective for the Late-Successional Reserve (LSR) land use allocation (LUA) as: 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). By contrast, the NWFP does not define any objective for the Matrix LUA. Instead, the NWFP states: 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 is not a specific objective, and the ambiguity has failed to provide clarity to the Forest Service land managers on what to do within the Matrix LUA and how to do it. Establish clear Standards and Guidelines that direct land managers and decision makers to conduct timber harvests and how to conduct them. 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. <i>See the details page for suggested Standards and Guidelines.</i> Timber salvage should be prioritized in the Matrix when forests are impacted by disturbance. Priority should be given to recovering damaged timber value and reforesting the affected acres consistent with providing adequate habitat for wildlife associated with post-fire conditions and adapting stands to future climate and disturbance. 	34		●		●	●	
<p>Workforce and Economic Contributions – Non-Timber Stewardship and Conservation Practices</p> <ul style="list-style-type: none"> Overall, develop and refine plan elements that improve predictability and certainty of non-timber stewardship practices, and that drive processes for engaging, sustaining and growing local workforce, business and partnership economic capture from the planning, implementation and monitoring of those practices. The Forest Service should work to ensure that non-timber/conservation practices/actions provide workforce and economic contributions to communities within the plan area. To accomplish that, the agency should consider, with their partners, the utilization of the full range of partnership tools to 	37	●			●		







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<p>leverage partnership, capacity and affect local economic benefit, including but not limited to increased use of stewardship contracting that requires local benefits.</p> <ul style="list-style-type: none"> The Forest Service should package at least a fraction of their contracts in ways that can be more accessible to local private operators. To accomplish that, the agency should intermittently assess local cooperator and contractor interests and capacities to help align their management actions and contract packaging to be accessible to those local cooperators and operators. At least annually, the agency (forest level?) should host a meeting(s) open to local cooperators and operators (and other interested parties) to discuss and assess interest and capabilities for different types of work (e.g. labor intensive, mechanical, technical). This information would inform FS strategies, the packaging of contracts and advance additional partnership development. NWFP amendments should include plan components that require planning and analysis to facilitate more efficient use of biomass. NWFP amendments should include plan components that require planning and analysis to better facilitate cross boundary climate change and fire resilience treatments, including consideration of risk analysis and other planning tools of federal land and adjacent ownerships. 							
<p>Tribal Workforce and Economic Contributions</p> <ul style="list-style-type: none"> Increase Tribal community workforce opportunities and capacity building in natural/cultural resources, forest stewardship, fire and cultural/natural resources and wildlife monitoring in across the planning region. <i>See details page for plan component ideas.</i> Consider land allocations and S&Gs that have the primary purpose of honoring TEK and Tribal self-determination, which could/should facilitate the workforce and business opportunities that tribes and tribal people are most interested in cultivating (as opposed to purposing tribal people towards current USFS work and employment structures). Focus on Tribal inclusion – <i>see details page for plan component ideas.</i> Recommendation to consider for implementation: Reliable funding to support Tribal leadership (natural/cultural resources and wildlife directors/manager/staff) to participate in co-stewardship, consultation, staff to run monitoring, planning and mgmt. programs and admin support, IDT teams for NEPA, joint-monitoring efforts. 	39					●	
<p>Recreation – Access, Equity, Quality of Experience, Adverse Community-Of-Place Impacts</p> <p><i>See details page for several plan component ideas</i></p>	42					●	







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<p>U.S. Forest Service – Community Relationships</p> <ul style="list-style-type: none"> Support staff in securing housing and key amenities in rural duty stations. The Forest Service should consider implementing financial and professional incentives for its employees to remain in rural, economically distressed, and underserved communities for the long-term. This would help build continuity, trust, geographic and community expertise, and increase direct economic and social benefits. Implement policies to reduce turnover and the frequency of moves. Suggest implementation of the turnover recommendations that the 2012 planning rule FACA committee put in place. Engage local workforce. Hiring locally could help build new or revitalize old connections with the communities in which duty stations are based. Build trusting relationships with communities. The Forest Service should consider predictable, regular community engagement activities at the forest level such as open houses, townhalls, and community field tours. 	46						
<p>Communities and Fire – Land Use</p> <ul style="list-style-type: none"> Direct the agency to assess, plan, implement and maintain strategic fuels management actions and infrastructure that reduce hazards and risks to communities spanning land allocations. Direct the agency to engage in processes that engage communities and key stakeholders in strategic fuel management planning, fire management, and other community-led and cross-jurisdictional hazard and risk reduction activities (e.g. development planning, right-of-way management, mutual aid fire response, evacuation planning, etc.) Both within and adjacent to legal utility right-of-ways, direct agency to provide flexibility across LUAs and associated standards and guides to reduce hazards (e.g. tree and limb strikes to lines/electrical equipment, ladder and surface fuels, etc.) where utility infrastructure is exposed to direct hazard from vegetation (live and/or dead) on NFS lands. 	48				●		
FIRE RESILIENCE							
<p>Less Regulatory Burden on Prescribed Fire</p> <ul style="list-style-type: none"> Add/amend S&G (C-17) to promote fuel treatments in LSRs that are designed to facilitate beneficial fire inclusion, rather than fire exclusion, to promote key late-successional elements. Indigenous cultural fire and low-medium severity natural wildfires are key processes in maintaining late-successional structure and species biodiversity. 	52						●

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<ul style="list-style-type: none"> • Add S&G to evaluate the impact of discretionary limited operating periods on prescribed burning/cultural fire use to favor restoring fire where short-term impacts to species are acceptable for long-term benefits. • Add a Goal to ensure before implementation of any directives that place undue regulatory or administrative burden on prescribed and cultural fire, those directives must be comprehensively assessed for their impacts on fire restoration goals and long-term ecosystem health. • Add a Goal to work with other agencies regarding regulatory processes governing smoke management and air quality to better acknowledge regulatory and process burden to increase acres of burning. Direct USFS to work with Tribes, EPA, DOI and state agencies to evaluate current federal regulations and guidance around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial fire, while ensuring protection of public health, in a manner consistent with the Clean Air Act. <p><i>Alternatives:</i></p> <ul style="list-style-type: none"> • <i>Evaluate the significance and use of burn bans. Implemented restrictions should be designated in National Forests with high wildfire risk/prone areas within reason of significant evidence of seasonal threats and other indicators.</i> • <i>Add a Goal to eliminate the need for specific Designated Line Officers to be present at prescribed fires, instead provide direct NWCG qualified burn boss, and/or a person certified to conduct prescribed fire operations.</i> 							
<p>Post-Fire Salvage</p> <ul style="list-style-type: none"> • In moist forests, prohibit salvage logging in LSRs after wildfires or other disturbances, with exceptions for public safety and road access. • In dry LSRs, consider salvage to reduce fuels and prepare sites for prescribed fire. Such salvage should retain larger dead trees, particularly of more decay resistant species. • Salvage in Matrix and Adaptive Management Areas, if undertaken, should follow the general principle of significant structural retention of the larger and more decay resistant species. 	53	●		●		●	
<p>Post-Fire Management Issue: Return fire regimes to post-wildfire burned areas and landscapes where applicable, appropriate, and beneficial.</p> <ul style="list-style-type: none"> • Establish Desired Conditions for "fire-diverse" and "fire-adapted" forests that acknowledge multiple pathways for development of late-successional forests, including role of reburns in some forests. 	55	●				● ●	

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<p>Modify language in Basis for Standards and Guidelines to better characterize this aspect of stand development highlighting specific areas or types of areas where this is most relevant.</p> <ul style="list-style-type: none"> • Specific S&Gs and/or Objectives for post-fire fuels management may also be relevant. • Specific DC or S&G (outside of LSRs): Consider strategic post-fire thinning to create implementable burn units and restore fire processes and fire-adapted habitats in and adjacent to recent fire footprints and areas near homes and along critical access routes and infrastructure. • Specific DC or S&G (Outside of moist LSRs): Consider post-fire tree removal (and prescribed burning-see below) as a tool for restoration in habitats affected by conifer encroachment (e.g. oak woodlands, meadows, grasslands, former plantations). Protect and retain older, larger, fire-resistant conifers and hardwoods; Retain hardwoods with potential for bole sprouting; Count natural hardwood, shrub and herbaceous regeneration needed to support diverse fire-adapted habitat mosaics in stocking requirements. • Develop further affirmative language about Desired Condition (or other plan component) around prioritizing retention of large snags on the landscape following wildfire for wildlife habitat, and for drainage and wetland features (e.g. swales, seeps, riparian areas and in sensitive soils). • Desired Condition or Guideline directing removal of excess timber/fuels that are uncharacteristic of the ecosystem due to fire exclusion/management and help reorient stands to resilient dry forest condition. Provide specific guidelines in salvage for maintaining snags/downed wood/fuels from older trees as important legacies, large woody debris for instream habitat, and prioritization of removal of smaller diameter and uncharacteristic species. • Details to consider for potential plan components: When returning prescribed fire to wildfire footprints in dry forest settings: 1) Prioritize fire in fire footprints that have conditions such as a limited fuelbed, that allow for a lower complexity reentry of fire (typically 0-12 years, some 0-3 years), 2) Recognize the importance of maintaining low and moderate severity fire footprints., 3) Tailor fire regimes to support wildlife habitat features, 4) Prioritize high severity burned landscapes (needs further discussion); except where risk of debris flow/landslide is high. • Monitor and manage invasives for at least 3 years post-wildfire; develop and implement mitigation/control strategies. • Monitoring and research recommendation: Detailed fire history/ecology and engagement with Tribal communities and IS/TEK to reconstruct fire histories and model post-fire trajectories to help establish fire intervals/regimes for restoring ecological function and fire-adapted forests post-fire. • Establish a Goal to work with Tribes to develop programmatic agreements and co-stewardship plans covering post-fire recovery actions. 							

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<p>Post-Fire Management Issue: Reforestation strategies that reflect diversity of native species and disturbance-succession processes.</p> <ul style="list-style-type: none"> Plan amendments are not necessary to achieve this goal. This is an ongoing focus in R6's reforestation strategy, which is in development. This could further be emphasized in Regional Foresters' letters on reforestation. However, it would also be possible to add NWFP plan components specific to this topic. Desired Conditions could describe desired species composition that reflects diversity of native species and includes hardwood components when appropriate (in line with ecosystem integrity) and are adapted to expected climatic regimes. Specific guidelines for reforestation could include direction on this topic. 	56	●	●				
<p>Post-Fire Management Issue: An emphasis on post-burn sites for ecosystem resilience and climate change adaptation</p> <ul style="list-style-type: none"> Add Desired Condition and plan components emphasizing evaluating post-burn sites for climate adapted reforestation, focused on younger stands or reburn/reset landscapes. Provide Guidelines for post-fire replanting that includes a diversity of native species, including hardwood, woodland, meadow/grasslands and wetland species where appropriate with an emphasis on ecosystem resilience and climate change adaptation. Provide direction about what a “fully stocked” stand may look like in a climate-constrained world and recognizes the ecological pace and typologies of succession and has broad flexibility to tailor desired outcomes to the landscape. Create a Desired Condition around restoring fire adapted forests, habitats and ecological processes in post-fire landscapes. Create a Goal to work with Tribes to develop co-stewardship agreements covering revitalization of cultural species and associated habitats following wildfire disturbances. Add monitoring guidelines to survey post-fire vegetation regrowth (species and structure), fuel re-loading, wildlife habitat condition and cultural use species quality. Design silviculture management plans that describe planned silvicultural activities (initial planting, scheduled plantation management, thinnings, early burning, etc.) to get landscape and stands to desired composition and structure at age 80. Need more than just initial planting plan to demonstrate benefit to restoring late-successional conditions. 	57	●	●				●
<p>Post-Fire Management Issue: Potential for post-fire salvage and management in plantations within dry, moist, and transition forest settings to accelerate development of mature forests, especially where key elements (large snags and CWD) are now missing.</p>	58					●	

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<ul style="list-style-type: none"> Develop a plan component (Goal, Desired Condition or S&G?) to encourage post-fire treatments (including salvage, thinning, prescribed burning and reforestation) in plantations and younger stands to accelerate development of mature forests, especially where key elements (large snags and CWD) are now missing. 							
<p>Wildfire Resilient Recreation</p> <ul style="list-style-type: none"> Add a Desired Condition to increase the resilience of trail systems and other recreation infrastructure to high severity wildfire. Design new recreation infrastructure to be fire resistant and resilient. Integrate recreation resources and infrastructure into project prioritization for fuels projects and landscape-level fire planning. Fire and fuels managers should consider where fuel treatments might prevent loss of forests to high severity wildfire in high value recreation areas. Consider recreation assets and infrastructure in the design of forest health and fuels reduction projects. Whenever possible, avoid negative impacts to recreation infrastructure. Rehabilitate trails and other recreation infrastructure during project implementation. Implement multi-benefit projects in or adjacent to the Wildland Urban Interface that have joint wildfire risk reduction and outdoor recreation benefits. Where appropriate, conduct thinning, prescribed burns, and vegetation clearing around outdoor recreation infrastructure to make it more resilient to wildfire and to create defensible space for fire suppression. Consider the value of recreation infrastructure when designing permanent fuel breaks, so that the Forest Service can reduce wildland fire risks to outdoor recreation assets and their associated community benefits while still maintaining the scenery management objectives of a given area. Require coordination and consultation with Forest and District recreation staff while designing and planning forest health and fuels reduction projects. (Consider for FAC implementation recommendation) Require rehabilitation of recreation infrastructure during post-fire management. Within burned areas, prioritize forest health, hazard tree and vegetation removal near trails, slope stabilization around trails, and restoration of outdoor recreation facilities lost in wildfires. Consider a Standard or potential management approach: Minimize wildfire-related area and facility closures to the smallest temporal and spatial extent possible. Target outdoor recreation site and area closures to the minimum area and time periods deemed appropriate to mitigate threats and minimize impact to the recreating public and commercial providers. Maintain roads to provide public access, meet management objectives, and support wildfire suppression. 	59			●			

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<ul style="list-style-type: none"> Develop education and enforcement strategies to reduce human causes of ignition of wildfires. 							
OLD GROWTH							
Recruit Future Mature and Old Trees <ul style="list-style-type: none"> Establish and evolve AMA/adaptive management to study and adapt management direction for plantations toward the diversity of goals related to ecological value (wildlife, plant communities, broader ecosystem values), and resistance/resilience to disturbances, alongside economic returns. S&G to use refugia concepts and data to prioritize recruitment of MOG on plantations that have higher probability of maintaining conditions over longer duration, through resistance to high severity fire under a range of fire weather and spread conditions. 	62	●	●		●		
Augment Conservation of Mature and Old Forests <ul style="list-style-type: none"> Conserve currently unprotected Old and Mature Moist Forest. Prioritize/Mandate active restoration management for Dry Forest LSRs by providing new management direction for Dry Forest LSRs emphasizing active management using mechanical and pyric means to restore these ecosystems to more resistant and resilient conditions, while recognizing and retaining moist forest settings. Such Dry Forest restoration begins with retention of all mature and old trees (>150 years of age) and other large trees when they are not threats to older trees. Priority for restoration should be Dry Forest areas that still have significant populations of old trees. The goal of this management direction is to restore Dry Forest LSRs to structural and compositional conditions that are resistant and resilient to wildfire, as was the case in the historic forests. Use of the operational concept called “ICO” (individual, clusters, and openings) provides an approach that will produce structural heterogeneity based on historic natural forests. Plan components should recognize the variable forest types within any given Dry Forest LSR, with goals to pursue restoration in dry forest settings while recognizing and retaining embedded moist forest settings. Explicit language and recognition to affirm the value of legacy (mature and old stems) hardwoods for ecological and cultural reasons is necessary. <i>The subcommittee identified a number of alternatives and additional ideas. See the details page.</i> 	63				●		
TRIBAL INCLUSION							
Tribal Inclusion and Trust Responsibility <p><i>The Tribal Inclusion subcommittee developed robust content including potential plan components for Committee consideration. Please see the details page. Other ideas still under discussion are also included (such as Tribal Wildlife and Tribal Climate Adaptation)</i></p>	67	●	●	●	●	●	

BARRED OWL REMOVAL

Why/Rational/Intent: The invasive barred owl poses a major threat to the survival of the northern spotted owl, as well documented in the U.S. Fish and Wildlife Service's (USFWS) proposal to reduce encounters between barred owls and northern spotted owls throughout much of the Northwest Forest Plan area.¹

Moreover, the barred owl is also a potential threat to a wide variety of other native Northwest fauna through predation and competition, including amphibians, crustaceans, fish, birds, bats, and small mammal species, many of which are associated with aquatic and riparian habitat.² The concentrated focus of barred owls on riparian habitat may be significantly reducing the effectiveness of Riparian Reserves as habitat for native biota and putting some prey species at risk.

Implementation of the USFWS's barred owl management proposal would rely heavily on other agencies and landowners, especially the U.S. Forest Service (USFS). Therefore, it is essential that the Forest Service provide clear management direction to USFS land managers in the region to fully cooperate with the USFWS in developing and implementing the Barred Owl Plan, such as by identifying appropriate locations for intensive barred owl reduction programs on national forest lands. Addressing the barred owl's increased threat to the northern spotted owl was at the top of the list of changes to the NWFP suggested in the USFS's Science Synthesis.³

Connection to NWFP: Preserving old-growth habitat for the northern spotted owl was a central objective of the NWFP. However, the barred owl's presence and impact in the Pacific Northwest were not known to scientists and planners at the time the Northwest Forest Plan was developed. Therefore, the NWFP did not include any strategy to combat the barred owl's threat to spotted owls.

Ideas/Options:

- Provide management direction for the Forest Service, in cooperation with US Fish and Wildlife Service and partners and in consultation with Tribes, to develop and implement aggressive barred owl management strategies and programs and monitoring, including lethal removal of barred owls from critical spotted owl habitats.
- Emphasize aggressive barred owl management in riparian habitats, as well as spotted owl areas. Conduct research to determine if barred owls may be dramatically reducing the effectiveness of riparian buffers as habitat for native biota, including amphibians, crustaceans, and fish.

¹ <https://www.fws.gov/project/barred-owl-management>.

² USFWS, Draft EIS for Barred Owl Management Strategy, p. 102-108. Science Synthesis Executive Summary, p.

³ NWFP Science Synthesis Executive Summary, 185.

Alternatives: None at this time

Priority: Not identified at this time

BEAVER RESTORATION

Why/Rational/Intent: Climate change poses serious threats to salmon and other aquatic species that were not contemplated in the 1994 Northwest Forest Plan. For example, warmer temperatures will result in more precipitation falling as rain instead of snow at high elevations, a substantial decline in mountain snowpack, an earlier snowmelt season, and decreases in summer streamflow.⁴

Restoration of beaver and use of beaver dam analogues (BDAs) can be effective in countering many of the adverse impacts of climate change to aquatic ecosystems. For example, a recent study of beaver restoration in the Skykomish River watershed in the western Washington Cascades found that average summer water temperatures were 2.3°C (4.1° F) cooler in streams below beaver dams.⁵

Several Forest Service climate vulnerability assessments and adaptation strategies have identified beaver reintroduction as an effective way to help slow water movement and increase water retention and groundwater recharge, benefiting wetland, riparian, and open-water habitats for many wildlife and plant species.⁶

In addition, the Forest Service has promoted beaver restoration as an effective tool to improve wetlands and help combat wildfires, stating “Beavers serve as a beacon of hope to help fight our wildfire crisis.”⁷

Beaver restoration programs have been successfully conducted by several tribes and national forests in the NWFP region during the past decade, including the Tulalip Tribes and Baker-Snoqualmie National Forest in western Washington, and the Yakama Nation, Colville Confederated Tribes, and Okanogan-Wenatchee National Forest in north-central Washington.⁸

⁴ Halofsky et al., USDA Forest Service PNW Research Station, *Climate Change Vulnerability and Adaptation in Southwest Oregon*, PNW-GTR-995, p. 43

⁵ Dittbrenner et al. 2022. *Relocated beaver can increase water storage and decrease stream temperature in headwater streams*, 13 *Ecosphere*:7 <https://doi.org/10.1002/ecs2.4168>

⁶ Halofsky et al., p. 339

⁷ [Firefighting beavers | US Forest Service \(usda.gov\)](https://www.fs.usda.gov/features/working-beavers-restore-watersheds)

⁸ <https://nr.tulaliptribes.com/Programs/Wildlife/Beaver>; <https://www.fs.usda.gov/features/working-beavers-restore-watersheds>.

NOAA Fisheries is working with partners to implement BDA and beaver restoration projects on the Oregon Coast to promote coho salmon recovery.⁹

Connection to NWFP: While beaver restoration and BDLs are not mentioned in the NWFP, the Aquatic Conservation Strategy's objectives and watershed restoration component are very consistent with beaver/BDL management activities. For example, ACS objectives 4 and 7 provide management direction to "maintain and restore water quality" and "maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands."¹⁰ Likewise, the ACS watershed restoration program mentions "meadow and wetland restoration" as a restoration opportunity; however, it assigns greater importance to other restoration actions like road decommissioning and in-stream habitat structures.¹¹

Ideas/Options:

- Direct USFS staff to work proactively with tribes and other partners to identify suitable beaver and BDA restoration sites on national forest lands and facilitate beaver and BDA restoration projects in suitable locations, including re-location of unwanted beavers from private lands to suitable national forest lands. Purposes of beaver and BDA restoration activities include adapting to climate change adaptation, reducing wildfire risk, improving wildlife habitat diversity, and supporting tribal treaty rights, as well as complementing the ACS objectives.
- Adopt a Desired Condition that recognizes the important ecological role of beavers and encourages beaver restoration.¹²
- Adopt a Guideline to give preferential consideration to non-lethal methods to control beavers that are threatening infrastructure.¹³
- Designate beaver as a "focal" species, based on its functional role as an ecological engineer (maker of beaver dams and associated effects on wetlands and watersheds).

⁹ <https://www.fisheries.noaa.gov/feature-story/working-natures-engineers-build-coho-salmon-habitat>.

¹⁰ NWFP, p. B-11

¹¹ NWFP, p. B-31

¹² Potential model is this Desired Condition in the Custer Gallatin NF Plan, p. (2022): "Beavers play an important ecological role within suitable habitat by increasing water residence time, spatial extent of water on the landscape, aquatic and riparian habitat complexity, and adaptation to changing climate conditions. Due to these benefits, beaver habitation is encouraged and present across the Custer Gallatin National Forest in suitable areas."

¹³ Potential model is this guideline in the Custer Gallatin NF Plan, p. 26 (2022): "To protect the ecological functions that beavers provide, management actions to reduce beaver threats to infrastructure should use techniques that sustain beavers (such as using pipes or "beaver deceivers" to reduce water levels, notching dams to restore streamflow, and/or other non-lethal methods.). Lethal removal should only be considered after non-lethal strategy options have been considered."

- Goal to work with the state on beaver management, including potential closures to commercial and recreational beaver trapping on national forest lands.

Alternatives: Recognize beaver as a tool for climate change adaptation, but not include management direction that might open up the ACS and complicate ESA consultation.

Priority: High. Beaver restoration is an opportunity to make progress on several key NWFP Amendment issues. The Forest Service has willing partners to accomplish this work.

CLIMATE CHANGE REFUGIA AND CONNECTIVITY/MIGRATION CORRIDORS

Why/Rational/Intent: Habitat refugia (including thermal, moisture, and disturbance refugia belonging to broad climate refugia concepts) are likely to be critical in providing for species persistence with climate change.¹⁴ Topographical features of potential climate/fire refugia include north aspects, valley bottoms and steep canyons, and sinks and basins, while microrefugia include burrows, talus slopes, and shading vegetation, as well as down wood and logs.¹⁵ A first step in protecting key refugia is to identify and map them. Managers can then prioritize locations and take steps to maintain and protect key refugia. Here we use the term "refugia" to represent a variety of important types important to biodiversity and ecosystem conservation and adaptation in the region.

Likewise, increasing habitat connectivity is a primary climate change adaptation strategy.¹⁶ Tactics to maintain landscape permeability for animal movement include providing passage structures across major highways, closing roads, identifying and overcoming barriers to movement, maintaining elevational connectivity, and considering connectivity during project planning. Coordination with adjacent land managers will be important to address potential land use conversion pressures and maintain landscape permeability and connectivity for range shifts and seasonal migration.¹⁷ Connectivity is achieved primarily by creating landscapes that facilitate the movement of organisms and materials and should not be equated with corridors; the NW Forest Plan recognized that conditions (e.g., hiding cover, structural features, etc.) were critical to successful dispersal of most species, including northern

¹⁴ Morelli et al. 2016. Managing climate change refugia for climate adaptation. Plos ONE 11: e0159909.

¹⁵ Halofsky et al. 2022. Climate change vulnerability and adaptation in southwest Oregon. Gen. Tech. Rep. PNW-GTR-995, p. 340.

¹⁶ Ibid., p. 338.

¹⁷ Mawdsley et al. 2009. A review of climate-change adaptation strategies for wildlife management and biodiversity conservation. Conservation Biology 23:1080-1089.

spotted owls. Hence, maintaining structural diversity in the matrix was deemed to be most effective, such as by banning clearcutting and requiring variable retention harvest practices.

Connectivity and refugia needs to vary among species. For example, salamanders and other amphibians in the NWFP area may benefit from linkage areas between adjacent watersheds; using various combinations of alternative management approaches (riparian buffers, thinning, down wood, leave islands, and uncut blocks) to retain forested areas along headwater ridgelines may facilitate upland dispersal and connectivity between subpopulations.¹⁸ For many species groups whose ecology remain poorly understood, the importance of retaining old-forest components and substrates in the managed forest matrix to serve as connections among the reserves is increasingly clear.¹⁹

Connection to NWFP: While the NWFP did not directly address the issue of climate refugia and connectivity, it has greatly improved the ability of many species to adapt to climate change through its reserve systems, the Aquatic Conservation Strategy, and management direction to provide for connectivity and conserve biological diversity associated with late successional and old-growth forests. In particular, one of the purposes of the Riparian Reserves was to “improve travel and dispersal corridors for many terrestrial animals and plants, and provide greater connectivity of the watershed,” as well as to “serve as connectivity corridors among the LSRs.”²⁰ Furthermore, the Aquatic Conservation Strategy’s system of Key Watersheds was intended to serve as refugia for maintaining and recovering habitat for at-risk fish species.²¹

The NWFP addressed habitat connectivity in the managed landscape between Reserves mainly through the lens of dispersal habitat for northern spotted owl. Unlike other alternatives considered during the planning process, the NWFP did not include the “50-11-40 rule” for owl dispersal habitat; instead, the final NWFP provided larger Riparian Reserves, prohibited clearcutting, and added Managed Late Successional Areas.²² The Plan also indirectly provided some habitat refugia and connectivity between Reserves through standards and guidelines for Matrix lands, such as by requiring retention of a minimum of 15% of the trees in any regeneration harvest unit.²³

Ideas/Options:

¹⁸ NWFP Science Synthesis Executive Summary, p. 83.

¹⁹ Ibid., p. 86

²⁰ NWFP Record of Decision, p. B-13.

²¹ NWFP, B-18.

²² FEIS, p. 3&4-242.

²³ FEIS, p. 2-62.

- Plan components should be developed to support research, monitoring, and planning to identify and maintain climate refugia networks and connectivity corridors for sensitive terrestrial and aquatic species.
- Map refugia with high biodiversity value and provide plan components to ensure they are adequately protected.
- Consider climate refugia and connectivity needs of wildlife in project planning and in potential changes to the Reserve system (e.g. LSR, Riparian Reserves)
- Prioritize refugia in dry forests for restoration treatment.
- Recognize the need for adaptive capacity in planning and real-time decision making around habitat restoration and climate resilience. Plan components should give land managers the ability to direct management of forests to respond to climate threats in real time and enhance their ability to provide connected refugia, migration corridors, and facilitate assisted migration when appropriate.

Alternatives: None at this time

Priority: High

SURVEY AND MANAGE

Why/Rational/Intent: The NWFP's Survey and Manage program initially was devised to identify older-forest species requiring additional site survey, monitoring, and management activities to help ensure their conservation in the NWFP area. It subsequently produced guidelines and approaches on natural history and management considerations for hidden, rare, or little-known species. Since 2005, implementation of the Survey and Manage program has effectively been merged with the Interagency Special Status and Sensitive Species Program (ISSSSP). The ISSSSP partners with a variety of research and academic institutions to provide key information on rare species of conservation concern. The current list of Survey and Manage species (as of 2003) includes 298 species: 189 fungi, 15 bryophytes, 40 lichens, 12 vascular plants, 36 snails and slugs (mollusks), 4 amphibians, 1 mammal (red tree vole), and 1 bird (great gray owl).²⁴

Of the many social changes since 1994, of particular note for its potential effect on biodiversity management and monitoring is the Forest Service's 2012 planning rule. The 2012 planning rule puts more weight on "coarse-filter" approaches and ecological integrity (based in part on natural range of variation) than did the previous 1982 planning rule that guided the NWFP.²⁵ The 2012 planning rule requires updated forest plans to identify Species of

²⁴ Science Synthesis Executive Summary, p. 79.

²⁵ Ibid.

Conservation Concern (SCC) and to provide the ecological conditions necessary to maintain a viable population of each SCC within the plan area.²⁶ The NWFP sought to maintain viable populations of all species by combining a coarse-filter approach through designation of reserves together with a “fine-filter” approach that featured the Survey and Manage program.

According to the FS Science Synthesis:

Both coarse- and fine-filter approaches to conservation are needed. Using one alone will likely fail to provide for conservation of the full suite of species and biodiversity of older forests. Successfully combining system and species approaches depends on clearly articulating management objectives. It also requires further monitoring and research to determine the efficacy of management and to identify needed changes in management. At present, many aspects of biodiversity, particularly regarding biological and ecological functions, depend largely on untested assumptions of the coarse-filter approach.²⁷

Connection to NWFP: See above.

Ideas/Options:

- Find an efficient way to transition from the Survey and Manage program to the SCC system required by the 2012 Planning Rule.
- Reevaluate and update the Survey and Manage species list based on the latest ISSSSP information.
- Determine whether the reservation of the additional older forest ecosystems will essentially eliminate the need for Survey and Manage.

Alternatives:

- Keep the status quo.
- Decommission the Survey and Manage program.

Priority: Medium

NON-FORESTED HABITATS

Why/Rational/Intent: Non-forest habitats such as grasslands, wetlands, shrublands, woodlands and meadows provide invaluable habitats for a wide range of plants and animals vital to maintaining a biodiversity essential to overall ecological health of National Forest lands. Management policies on

²⁶ 36 CFR 219.9(b).

²⁷ Science Synthesis Executive Summary, p. 90.

National Forest lands to maximize timber production and suppress all wildfires have resulted in critical non-forest habitats declining across the region. Legacy plantations, conifer encroachment, climate change, fire suppression and removal of Indigenous fire stewardship have all contributed to this loss. Along with the loss of non-forested habitats comes a decrease in the biodiversity of plant, wildlife, and fish species across National Forest lands. In order to restore, enhance, and maintain non-forested habitats across National Forest lands, these habitats must be recognized for their importance to diverse ecosystems across landscapes. Historically, National Forest lands had a diversity of forest and non-forest ecosystem types in various seral stages. This variety of habitats provided for the nesting, roosting, foraging, and movements of forest mammals, birds, amphibians, reptiles, mollusks, and insects. According to the BioA, “The dynamic nature of ecosystems means that goals for reserves should likely include a range of successional states...” and “Managing large reserves as dynamic mosaics of vegetation conditions that meet the needs of various wildlife species as well as goals for resilience to climate change and fire might better align with current goals”. (BioA, Page 25).

Indigenous Knowledge is essential to non-forest habitat management. Local Tribes were stewards of non-forested habitats for time immemorial. Using Indigenous Knowledge to guide management practices will ensure the restoration and maintenance of habitats that support cultural, medicinal, and spiritual species. (Sci Synth 2018, Ch 11, pg. 878). These activities will also move non-forested habitats towards desired conditions of greater climate and fire resiliency.

While the focus of the NWFP is on old growth ecosystems, the NWFP lacks direction for managing for a diversity of non-forested habitats for wildlife, climate adaptation, fire resilience and overall biodiversity.

Connection to NWFP:

- Basis for Standards and Guidelines - Ecological Principles for Management of Late-Successional Forests B-1 thru B-9
- LSR Silviculture C-11 thru C-13; Matrix Standards and Guidelines C-39
- Section on wetlands > B-16/17

As stated in the BioA, “One of the factors limiting our ability to maintain and restore ecological integrity is existing plan direction that is not always compatible with the diversity of ecosystems across the BioA area” and “While existing plans have been effective at stemming the loss of dense, multi-layered old-growth habitat...it has been at the cost of ecological integrity in some areas” and “The science of the NWFP did not adequately deal with substantially different ecology of forests and landscapes of the dry forest zones...(Spies and others 2018)” and “Under current land management plans, management direction that protects habitats and tree structural stages and size classes create barriers to treatments that are needed to restore habitats and increase ecosystem resilience”.

Ideas/Options:

BIODIVERSITY SUBCOMMITTEE

Ideas and Options

Working ideas for discussion January-February 2024

- Develop plan components that recognize the importance of a variety of forest and non-forested habitat types across the landscape. Plan directions should focus on future desired conditions that include non-forested habitats including woodlands, meadows, and wetlands.
- Forest Service should engage in research, planning and place-based stewardship and restoration, prescriptions based on historic (HRV/NRV), contemporary and future desired conditions for restoring non-forest habitats and connectivity between them where appropriate.
- Develop plan components to support monitoring of habitat use/quality and management of habitat for all Federal and State listed Threatened and Endangered species, Species of Conservation Concern and Tribal-identified cultural use species.
- Include Local Tribes in developing management plans for non-forested habitats to ensure Tribal Knowledge is used to restore, enhance and maintain areas on National Forest lands important for cultural, medicinal, and spiritual plants and animals.
- Provide clear direction to override any underlying LMPs that limits ability to shift areas that are currently forested (due to fire exclusion/plantations) to non-forested cover types.
- Maintain and restore ecosystem characteristics and processes by working toward desired conditions that are compatible with the diverse landscapes across the BioA area.
- Promote stewardship in (diverse) non-forested plant and animal habitats across all LUAs to restore and encourage biological diversity and ecological resilience.

Alternatives: None at this time

Priority: Medium to High

GENERAL IDEAS

Why/Rational/Intent: The NWFP did not adequately anticipate the scope, scale or impacts of climate change in its original formulation. Climate change-related stressors are posing significant threats to ecosystem resiliency and function, community health and well-being across the NWFP planning region. Climate impacts such as high temperatures, extreme flooding, severe wildfires, loss of snowpack, and drought detrimentally affect ecosystem function, access to natural and cultural resources and the experience of forest users. Native species- including Threatened & Endangered species, Species of Conservation concern and Indigenous cultural use species- will need resilient and connected habitats in order to move, find refugia and adapt to climate change. Forests can and should play a critical role in providing carbon sequestration and connected habitats for climate driven migration and refugia for plant, animal, and fish species. This set of ideas focuses on building general adaptive capacity of the USFS to plan for and respond to an array of climate change-related disturbances and compounding stressors in order to maintain the resistance, resilience and functionality of ecological and social systems across the planning area. We must wisely steward the land and its resources in balance for all life and for future generations, guided by a vision of reciprocity in which we give back to the forest in return for all the benefits that it provides.

Connection to NWFP:

- Basis for Standards and Guidelines (Section B, Basis for Standards and Guidelines, esp. Section B-7 Management of Disturbance Risk, B-8, Management after Disturbance; Ecological Principles for Management of Late-Successional Forests -B-1 thru B-9)
- Standards and Guidelines (Section C, including LSR S&Gs especially for Silviculture C11-C13; Matrix S&Gs C39.
- Section E: Monitoring (E-1-E-21), esp. Section E. Implementation, E-12 Adaptive Management

Ideas/Options:

- Amend NWFP plan direction to explicitly acknowledge climate change effects and the need for adaptation measures (in Basis for Standards in guidelines, Section B?) and develop plan components (Desired Conditions, Goals, Standards and Guidelines, in Section C?) to consider climate change vulnerability and adaptation in planning and implementation of treatments and other management and climate response/mitigation activities (for specific habitat types like Sierra/Sequoia NF LMP?).
 - General climate change adaptation management approaches should be addressed in a separate, new (subsection of Section B?) in the plan as well as in the monitoring section (Section E. Implementation, E-12 Adaptive Management?) for provisions pertaining to research, monitoring, modeling/forecasting, and trigger points/management response pathways for incorporation of climate information into decision-making and community-engaged planning, inter-jurisdictional and cross boundary assessment, planning and response and adaptive capacity building. Some language to borrow from the Sequoia NF LMP to include in Section B or in a Goal: “(Climate change) adaptation includes initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects: building resistance to climate-related stressors; increasing ecological resilience by minimizing the severity of

climate change impacts, reducing the vulnerability, and increasing the adaptive capacity of ecosystem elements; and facilitating ecological transitions in response to changing environmental conditions”.

- Add a Desired Condition (with accompanying new Management Approach added in Section C?) to provide land managers with necessary direction, flexibility, discretion and clear decision-making processes and actions to respond to both the projected impacts and the high degree of uncertainty that climate change brings in order to maintain social and ecological resilience, functional ecosystems, watersheds and component habitats.
- Add a new subsection (to Section E-12?) to include identification and development of specific thresholds for future climate driven changes to forest conditions across the NWFP area which would trigger reevaluation and possible amendment of plan components. Amend the monitoring framework to define and operationalize “triggers” for adaptive management.
 - A trigger is a mechanism for adaptive management that ties monitoring to management actions, or a “pre-negotiated commitment made by an agency within an adaptive management or mitigation framework” specifying what actions (e.g., management, mitigation, response actions) will be taken if monitoring information reveals that indicators of climate change or climate stressors/impacts have crossed a particular threshold.
 - One approach could be to recommend a Desired Condition or Objective along the lines of “within five years, each National Forest shall” that give direction to identify thresholds and triggers, tailored to the location, with input from Tribes through government-to-government agreements/processes and community-engaged research.
 - Some potential examples of areas to develop triggers around or build into other recommendations for appropriate issue areas:
 - Stream temperature, absolute or rate of increase >> response and mitigation/adaptation pathways could include actions for increasing stream shading, GW/Surface water hyporheic connectivity, limit withdrawals and impoundments, increase floodplain connectivity and off-channel refugia, or fish rescue actions.
 - Sudden fish and wildlife population decreases (including T&E, State T&E, SCC, Tribal cultural use species) or stressors (disease, habitat loss) > development of refugia networks, assisted migration, habitat enhancement and connectivity.
 - Range shifts in vegetation communities and wildlife habitats/populations (including T&E, State T&E, SCC, Tribal cultural use species) and assisted migration pathways
 - Loss of LSR and MOG due to wildfire > remapping/rezoning LUAs, mgmt. actions to regrow MOG, establish fire return intervals and mgmt. actions to restore MOG and other critical habitats
 - Frequency, scale and intensity of wildfire (e.g. acres burned under high severity) and mitigation/management response > post-fire recovery and mgmt. actions (Rx and cultural fire, thinning and salvage, frequency of maintenance burns and treatments) needed to develop MOG and particular habitats (e.g. meadows, wet meadows, forested slope wetlands, serpentine meadows, grasslands, oak woodlands, habitat for T&E/SCC/Cultural use species in particular places across the landscape
 - Drought stress impacts/vulnerability and extreme heat days
 - Flood frequency and impacts

- Pest/pathogen outbreaks
 - Barred owl sightings/population dynamics
 - Consider which thresholds/trigger points might necessitate further plan amendment/revisions
 - Consider using RAD/Resist - Adapt - Direct type framing
 - Consider referencing the 2012 planning rule requirements for “plan-level and broader-scale monitoring, to inform adaptive management” and the “three-part learning and planning framework to assess information relevant to the plan area, develop, amend, or revise land management plans based on the need for change, and monitor to test assumptions, detect changes, and evaluate whether progress is being made toward desired outcomes”.
- Include a Goal for the Forest Service to work in partnership with Tribes to coordinate with Tribal and National Forest climate vulnerability and adaptation plans and strategies that have been developed but not yet incorporated into Forest Service management plans and to support Tribes and Forest Districts to update plans and develop new plans and adaptive management strategies where they haven’t yet been developed.
 - Add Desired Conditions related to enhancing the resilience of LSR and MOG stands/habitats, Tribal cultural use species and habitats, T&E and SCC species and habitats and (all 19) vegetation zones (from BioA fig 2.2) to climate change related stressors and disturbances, frequently incorporating monitoring data and best available science/TEK to design treatments, develop management actions and strategies to bolster resilience, mitigate, respond and adapt to climate change across the planning area.
 - Include a Goal for the Forest Service to work in partnership with NWFP Forests, Tribes and partners (academics, NGOs, forest collaboratives and community groups) on climate modeling, research, monitoring and adaptation approaches.

Alternatives: None at this time

Priority: Not identified

CARBON SEQUESTRATION AND STORAGE

Why/Rational/Intent: NWFP area forests are globally significant in their ability to sequester and store carbon; consequently, they help mitigate the root cause of climate change. However, both the ability of forests to sequester and store carbon and the threats to this ability differ across the spectrum from wet to dry forests. Management actions focused on maintaining this ability will require careful consideration of historical and contemporary ecosystem conditions in the planning and management of forests across the NWFP planning area. Similarly, the ability of NWFP area forests to sequester and store carbon must also be balanced with the myriad of benefits these forests provide and requirements to maintain functional ecosystems.

Connection to NWFP: Basis for Standards and Guidelines - Ecosystem Functions B-4; S&Gs for all LUAs

Ideas/Options:

- Establish goal to acknowledge that the ability of NWFP forests to sequester and store carbon is globally significant and an important driver of net balance of PNW society on global climate.
- Establish Desired Conditions for Moist Forest Provinces focused on building increased in-forest carbon stocks in plantations that are depressed from past intensive management and maintaining stocks in mature and old growth forests. Ensure that a Moist Forest Carbon Desired Condition maintains consistency with Desired Conditions for Ecosystem Integrity incorporating historic and future range of variability.
- Establish Desired Conditions for Dry Forest Provinces focused on stabilizing existing in-forest carbon stocks from loss due to uncharacteristically severe disturbances such as fire and that maintain consistency with Desired Conditions for Ecosystem Integrity incorporating historic and future range of variability. Ensure that a Dry Forest Carbon Desired Condition does not inhibit resilience treatments with short term emissions but that will enhance long term forest carbon stability in the face of increasing disturbance.
- Tiered to the Moist Forest and Dry Forest Desired Conditions for forest carbon, establish Guideline(s) that old forest and old tree protections are specific to a locations particular ecological context and include a focus on species identity and functional characteristics, in addition to tree size.
- Establish Standards guiding post-fire management – linked to Fire Resilience SC post fire management recommendations.

Alternatives: NWFP Amendment EIS analysis of the forest management alternatives generated by other FAC subcommittee ideas should consider short and long term consequences on forest carbon sequestration and storage.

Priority: High – will be conspicuous if absent.

CLIMATE RESILIENT RECREATION

Why/Rational/Intent: According to the Fifth National Climate Assessment, climate change will impact outdoor recreation in a variety of ways: loss of snowpack will harm snow-based recreation, increasing temperatures may extend recreational seasons, increased flooding and erosion will impact infrastructure, wildfires will close recreation areas and deter outdoor activities, and these changes will produce inequitable outcomes for health and well-being.²⁸ The Bioregional Assessment of Northwest Forests cites similar climate impacts.²⁹ The Pacific Northwest Research Station’s “Climate Change Vulnerability and Adaptation in the North Cascades Region, Washington” details the climate vulnerabilities of access in the North Cascades, including lack

²⁸ Fifth National Climate Assessment, Ch. 27. Northwest. <https://nca2023.globalchange.gov/chapter/27/>

²⁹ Bioregional Assessment of Northwest Forests, pg. 65.

of infrastructure resilience to climate-related events, increased frequency of infrastructure failure in the future, increased likelihood of operational disruptions from climate-related events, and funding constraints to taking preemptive actions.³⁰

Recent climate change vulnerability assessments³¹ (Southwest Oregon, Columbia River Gorge/Mount Hood/Willamette NF, Snoqualmie RD) recommend a number of adaptation options:

- Increased flexibility in the seasonality of staffing, permitting, and concessionaire contracts;
- Redirecting recreational use to protect vulnerable areas, minimize conflict between users and with wildlife, and increase public safety;
- Increased maintenance of roads and other infrastructure;
- Repair and decommission roads, reposition dispersed campsites, adjust culverts.

When appropriate, recreation should be integrated into specific climate adaptation actions in the NWFP amendment. This can be achieved in multiple ways, including by integrating recreation into climate resilience strategies, and by addressing the resilience of recreation infrastructure to climate change and other stressors.

Connection to NWFP: The 1994 Northwest Forest Plan does not consider climate change, nor climate resilient recreation. In regards to recreation, the Bioregional Assessment states,

“In contrast to the NWFP’s guidance for natural resource management, there is no overall consistency to recreation management. The lack of uniform management direction related to recreation inhibits our ability to effectively and efficiently address management concerns for resources that cross multiple administrative boundaries...**The increasing demands and economic significance of recreation activity as well as the impacts of excessive deferred maintenance and a changing climate was not anticipated in 1994.**”³²

The Bioregional Assessment presents 10 key recommendations for improving land management plans in the BioA area. Recommendation 10 is to “recognize the social and economic benefits to communities and people from sustainable recreation opportunities.”³³ The management challenges and opportunities for change includes: “Land management plans need proactive direction to address the potential effects of climate change and other landscape-altering events on recreation and its infrastructure.” It goes on to say “Land management plan direction needs to address the connection

³⁰ USDA U.S. Forest Service Pacific Northwest Research Station, “Climate Change Vulnerability and Adaptation in the North Cascades Region, Washington,” pg. 65. https://www.fs.usda.gov/pnw/pubs/pnw_gtr892.pdf

³¹ <https://www.fs.usda.gov/detail/r6/climatechange/?cid=fseprd491592>

³² NWFP Bioregional Assessment, pg. 36

³³ Ibid

between resilient landscapes and sustainable recreation and prioritize when and how management activities apply to desired conditions related to recreation.”³⁴

The 2012 Planning Rule addresses recreation as part of social and economic sustainability, and says that plans revised under the rule “must include plan components, including standards or guidelines, to guide the plan area’s contribution to social and economic sustainability, taking into account...(2) Sustainable recreation; including recreation settings, opportunities, and access; and scenic character.”³⁵

Ideas/Options:

General ideas include:

- Consider how ecological restoration and other actions pursued through a NWFP amendment can address these impacts and others on the recreation experience. (Ensure recreation is integrated into other FAC climate resilience recommendations)
- Conduct an assessment of climate impacts to roads, trails, and other recreation resources in need of rehabilitation following climate-related disturbances like floods and wildfires. This assessment can include management goals aimed at making infrastructure investments that are more sustainable and durable. (Consider for individual forest plan revisions and FAC implementation recommendations)
- Expeditiously restore recreation sites and reopen them to the public after climate-related events. (Integrate into FAC fire resilience recommendations, consider for FAC implementation recommendations)
- Consider how existing policies might be updated to improve the construction and siting of new recreation infrastructure in light of predicted climate impacts. (Ensure that existing NWFP direction does not hinder this, consider for FAC implementation recommendations)
- Target climate resilience strategies, including aquatic restoration, hazardous fuels treatments, and carbon forestry, in areas that are also valuable to recreationists and appropriate for outdoor recreation. When appropriate, these activities should be designed, sited, and prioritized in a way that benefits the quality of the recreation experience in a particular area. (Ensure recreation is integrated into other FAC climate resilience recommendations)

Consider plan components from existing forest plans:

- Prepare for intense storms and fluctuations in base flow using methods that maintain forest health and diversity, including controlling soil erosion, relocating high risk roads and trails, and constructing appropriately sized culverts and stream crossings while retaining stream connectivity. (Nantahala Pisgah, Climate Management Approaches)

³⁴ Bioregional Assessment, pg. 65

³⁵ 2012 Planning Rule, 36 CFR 219.8(b)

- The transportation network is resilient to the effects of climate change, including the ability to accommodate increased runoff and peak flows that may exceed historic streamflow events. (Nez Perce-Clearwater, FW-DC-ARINF-02)
- Take a landscape- or watershed-scale approach to restoring aquatic and riparian ecosystems so that they are resilient to climate change and other stressors. Use partnerships and integrate restoration activities with recreation, range management, fuels, and vegetation management to efficiently use limited resources. (Sierra Sequoia, WTR-FW-GOAL-02)

Alternatives: Agency input would be helpful in translating these general ideas into plan components and analyzing other forest plans revised under the 2012 planning rule for other suggested plan components.

These potential recommendations can be woven into other suggested climate recommendations and plan components, or proposed as stand-alone recommendations. Some are also relevant for implementation recommendations.

Priority: Medium

CLIMATE-DRIVEN SHIFTS AND ECOSYSTEM INTEGRITY

Why/Rational/Intent: The NWFP did not adequately anticipate the scope, scale or impacts of climate change in its original formulation. Climate change-related stressors are posing significant threats to ecosystem integrity across the NWFP planning region.

Climate change is significantly altering the ecological processes and disturbance regimes which shape NWFP area forests. Climate change-driven shifts in both the distribution of forest types and in fire regimes are already happening across the NWFP Area. Climate change is impacting the current wildland fire crisis in myriad ways, including contribution to more frequent and more intense/severe, larger fires and longer fire seasons.

Distinguishing amongst different forest types, and their associated disturbance regimes, habitat values, ecological process, etc., is a cornerstone of managing national forests. Management to ensure the ecological integrity of NWFP area forests in the face of climate change must account for climate driven shifts in forest types and communities.

Connection to NWFP:

- Ecosystem Integrity is a fundamental component of the sustainability provision of the 2012 Planning Rule. Under the 2012 Planning Rule, Ecosystem Integrity is defined by the “natural range of variation”, that can include both historic and future perspectives.

- Both the original Northwest Forest Plan and many of the recommendations being developed by the FAC depend upon broadly distinguishing “dry forests” versus “moist forests”.
 - NWFP Standards and Guidelines B4 identified “warmer and drier physiognomic provinces” (Washington and Oregon Cascades, California Cascades, Oregon and California Provinces) where fire is “more frequent, less intense, and an integral part of the internal dynamics of a typical stand).
 - NWFP Standards and Guidelines C12 distinguishes “West of the Cascades” and “East of the Cascades and in the Oregon and California Klamath Provinces” for management of Late Successional Reserves.

Ideas/Options:

- Review and confirm the spatial definition of NWFP “Dry Forest Physiognomic Provinces” and “Moist Forest Physiognomic Provinces” that are based upon the ecological characteristics and disturbance regimes (especially historical fire regimes) of the dominant forest types on the landscape, and recognize the wide variety of forest types within a landscape.
 - Local “forest types” may be characterized and mapped using existing and /or under-development vegetation classifications (e.g., plant associations, plant association groups, potential vegetation types, existing vegetation types, etc.) and/or eco-physiological approaches (e.g., climatic water balance, water deficit, etc.). It is important to recognize the biophysical setting at a local scale, as well as the landscape and regional/province context; and provide managers latitude in decision making based on that geographic setting. Identification of Dry and Moist Forest Provinces should incorporate both current conditions and projected shifts in forest types and fire regimes/fire environment. **Note: This topic needs additional discussion by the FAC – not currently a consensus.**
- Develop Desired Conditions for forest structure & composition based on Dry vs. Moist Forest Provinces and individual forest types that incorporate estimates of both “historic range of variability” and “future range of variability” as components of “natural range of variability”. Desired Conditions could describe the range of acceptable future conditions in different forest types in a way that managers understand what management options may be acceptable or needed in their local setting.
- Develop a Goal for research partnerships to refine projections of climate impacts on forest ecosystems in the NWFP area and support the development of “future range of variability” reference conditions.
- Develop a monitoring program for climate driven shifts in forest condition and ecological process (wildfire and post-fire / post-disturbance transformations, and identification of “transitioning” forest types) that could trigger a revision of the mapping of Dry Forest and Moist Forest Provinces, local forest types, and Desired Conditions for forest structure and composition to ensure ecological integrity. This includes identifying

the appropriate indicators, baseline, remeasurement schedule, and thresholds for these indicators that would trigger revision of plan components.

- Standard/Guideline that silviculture treatments and other management activities actively consider climate change effects and include adaptation measures.
- Evaluate where existing land allocations don't all track well with climate adaptation and resilience (e.g., example of Kerry Kemp's work to evaluate LSR distributions with current and future fire trends and refugia locations). Where mis-matches are identified, either revise land use allocations or revise Standards and Guidelines to facilitate appropriate management.
- **Also consider / add something around assisted migration related topics**

Alternatives:

- Evaluate updating the Desired Conditions / Standards / Guidelines for particular land use allocations that are found to be in conflict with climate adaptation / ecosystem integrity (e.g., LSR's in Dry Forest Provinces)
- Evaluate updating the land use allocations in Provinces or individual LRMP where existing allocations are found to be in conflict with climate adaptation / ecosystem integrity (e.g., LSR's in Dry Forest Provinces)

Priority: High - foundational to facilitating recommendations across FAC priority topics.

PEST AND PATHOGENS

Why/Rational/Intent: Climate change is driving changes in ecosystem conditions and host, vector and pathogen dynamics conducive to the proliferation of pests, pathogens and invasive species that impact plants, wildlife and humans. Changes in temperature, precipitation and snow levels, soil moisture and wind patterns impact the reproduction, development, survival, abundance and transmission of plant pathogens and pests (such as Sudden Oak Death and laminated root rot, mountain pine beetle) as well as vector-borne, waterborne, soil-borne, air-borne and rodent-borne zoonotic diseases. Warming freshwater bodies can also pose increased risk of Harmful Algal Blooms and pathogens, such as *Ceratonova shasta* or *Flavobacterium columnare/gill rot*. These shifts are driving the geographical expansion and severity of pests and infectious diseases and are likely to accelerate infection rates, morbidity and mortality in plants, animals and humans going forward. Climate change is likely to create conditions conducive to the emergence of new pathogens and pests and the spread of invasive and noxious species across the planning areas. There are feedbacks between the spread of pests and pathogens, invasives and tree mortality and fire recurrence/severity that need to be better understood and managed. Many dry forests have moth and beetle kills that produces large areas of dead trees that are at much higher risk of fire (e.g. Mountain Pine Beetle, which effects mostly pine forests and Tussock Moth, which effects mostly Douglas fir, true fir, and spruce trees.) More resources for research, monitoring and surveillance of pest and

pathogen response to climate change is needed in order to abate the spread of infectious diseases in plants, animals and humans across the planning area.

Connection to NWFP: Section E on monitoring, E-12 on Adaptive Management?

Ideas/Options:

- Recommendations around adaptive management, research/monitoring, coordination, and thresholds for re-evaluation of plan components in Section E-12.
- For insect outbreaks and climate change, integrate considerations of insects in Desired Conditions/Standards and Guidelines for ecosystem integrity and disturbance response along with wildfire; Monitoring and Information sharing recommendations.
- Identify opportunities for plan components/direction related to new and invasive pests/pathogens; Relationships with other agencies (e.g. Forest Health and Protection) could be addressed via Goals in the plan.
- Goal or Desired Condition: Forests develop forest management components of “one health” strategies for management mitigation and abatement of pests/pathogens/disease in plants, fish and wildlife and humans.
- Goal or desired condition: Partnerships with Tribes for monitoring, mitigation, adaptive management and responding to pest/pathogen/invasive species threats to cultural use species and habitats.
- Goal: Strengthen relations between USDA FS and USDA APHIS, Tribes and State Fish & Wildlife departments regarding pest and pathogen monitoring and mitigation planning and center Tribal priorities in Forest Health Protection or through Plans.

Alternatives: None identified at this time

Priority: High

WORKFORCE AND ECONOMIC CONTRIBUTIONS - TIMBER MANAGEMENT

Why/Rational/Intent: The Northwest Forest Plan has not delivered on its anticipated (some would say “promised”) timber outputs, which were already 80% below historical harvest levels. This has had significant impacts on the viability of the forest infrastructure (mills, timber purchasers, loggers, and interconnected supply chains) and communities (revenues that support critical public services such as roads, education, and in the case of O&C Lands, general fund revenues that support a wide variety of essential services such as mental health and law enforcement).

The intent of a recommendation is to improve and increase the predictability and certainty of timber supply from national forests that are critical to maintaining – and potentially growing - the remaining infrastructure and workforce necessary to steward national forests and address growing risk to our national forests and all the social, environmental, and economic values they provide to society. This predictability is also paramount to attracting investment, especially in communities adjacent to at-risk national forest lands that currently lack sufficient infrastructure to deal with the forest health and wildfire crises.

Connection to NWFP: One of the main goals of the Northwest Forest Plan was to sustain (some would say “maximize”) timber production that the forest infrastructure and communities relied on while ensuring compliance with all federal environmental laws and regulations, particularly the National Environmental Policy Act, the Endangered Species Act, related critical habitat designations, and Clean Water Act.

The goal of producing a sustainable supply of timber with the NWFP has not been met, and “a decline in locally provided supply has had a profound impact on the local timber-processing industry, and its capacity to maintain its infrastructure.”³⁶

Ideas/Options:

- Rename the “Matrix” land base to more clearly reflect the outcome and objective of the small portion of the land base intended to support timber supply and communities. The BLM changed the name from “Matrix” to “Harvest Land Base” when it completed its 2016 Resource Management Plans for Western Oregon (O&C). While a name change may be seen as a minor issue that doesn’t alter management direction and outcomes by itself, words matter.
 - After discussion, the Subcommittee recommended “Harvest Land Base” or “Forest Stewardship Area,” though it was acknowledged that the word “stewardship” may not be specific enough to capture the objective and intent of the land allocation. The Subcommittee

³⁶ Spies, T.A.; Stine, P.A.; Gravenmier, R.; Long, J.W.; Reilly, M.J., tech. coords. 2018. Synthesis of science to inform land management within the Northwest Forest Plan area. Gen. Tech. Rep. PNW-GTR-966. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 1020 p. 3 vol. Quote from page 18

generally agreed that we should not “mince words.” The new name should be clear, concise, and the audience should be the general public.

- Establish clear objectives for the Matrix, or newly named land base intended for sustained-yield forest management. The NWFP defines the objective for the Late-Successional Reserve (LSR) land use allocation (LUA) as: 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). By contrast, the NWFP does not define any objective for the Matrix LUA. Instead, the NWFP states: 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 is not a specific objective, and the ambiguity has failed to provide clarity to the Forest Service land managers on what to do within the Matrix LUA and how to do it.
 - After discussion, the Subcommittee acknowledged that the defined objective(s) must also be compatible with any recommendations specific to: mature and old growth protection (e.g. change in land use allocations, or including old growth as part of retention requirements during harvests), wildfire mitigation and post wildfire response (e.g. road access and salvage), and climate change adaptation and mitigation (e.g. stored carbon in trees, underground, and in stored wood products; accelerating carbon sequestration in young forest types and managing for ecological integrity, diversity, and resilience).
 - 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 characterizes Matrix land as “other” rather than an important LUA with unique objectives that warrant deliberate management actions. This sentence should be removed (less is more!). 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 could also be removed and replaced with a true “Objective,” such as: ***The objective of the Matrix LUA (or newly named LUA) is to provide a regular and predictable supply of timber products consistent with the principles of long-term sustained yield to attain the annual Probable Sale Quantity (PSQ) and attainment of desired future conditions (conservation of mature and old trees, adaptation to future change, and resilience to fire and other disturbance.***
- Establish clear Standards and Guidelines that direct land managers and decision makers to conduct timber harvests and how to conduct them. 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.
 - The NWFP established a set of *restrictive* Standards & 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
- Many of the existing Standards and Guidelines 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:
 - *There is no harvest allowed in stands over 80 years old.*
 - *The purpose of silvicultural treatments is to benefit the creation and maintenance of late-successional forest conditions.*
- Accordingly, similar Standards and/or Guidelines could be adopted to ensure compliance with the (new) stated objective for the Matrix LUA (2012 Planning Rule, § 219.11(b)).
- **Suggestions for Standards/Guidelines:**
 - The purpose of silvicultural treatments is to produce a sustainable supply of timber.
 - To attain this sustainable supply, managers should utilize a combination of thinning, uneven-aged management, and variable retention harvests to attain Forest Stewardship Area objectives, including the attainment of PSQs.
 - Variable retention harvests should be the default silvicultural treatment in “moist forests” when a stand in a Forest Stewardship Area reaches CMAI or when managers determine the need to create early seral forest habitat in mid-seral forests.
 - Thinning or uneven-aged management with group selections, should be the default silvicultural treatment in “dry forests” when a stand in a Forest Stewardship Area when managers determine the need to modify forest structure and composition to improve forest resilience to future climate and disturbance.
 - 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 stands.
 - Variable retention harvests and uneven aged treatments should be utilized to:
 - Ensure a sustainable supply of timber in Forest Stewardship Areas.
 - Reinitiate a healthy and diverse early seral stand.
- Timber salvage should be prioritized in the Matrix when forests are impacted by disturbance. Priority should be given to recovering damaged timber value and reforesting the affected acres consistent with providing adequate habitat for wildlife associated with post-fire conditions and adapting stands to future climate and disturbance.

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Implementation or “Beyond NWFP Standards and Guidelines” Ideas

- The Forest Service should consider including in planning and NEPA documents the importance of timber supply to local economies, businesses, and workforces with specific references to local socio-economic data.
- The Forest Service should consider including in planning and NEPA documents the importance of timber supply to achieving local, state, federal, and international climate change goals, directly referencing applicable science and recommendations around the role of sustainable forest management and the role of wood products.

Alternatives: See above, these are also suggested alternatives or options for the Committee to consider, discuss, and refine.

Priority: High

WORKFORCE AND ECONOMIC CONTRIBUTIONS – NON-TIMBER STEWARDSHIP AND CONSERVATION PRACTICES

Why/Rational/Intent: Management of NFS lands within the plan area should provide consistent and diverse business and employment opportunities in local communities supporting the full suite of conservation practices relevant to specific forests and ecological setting. In many cases, but not always, these practices, jobs and businesses can have strong synergy with timber goals and objectives, as well as objective related to improving stand and landscape resilience to the effects of changing climate and disturbance regimes.

Connection to NWFP: Beyond timber products, the Plan includes hydrologic restoration, habitat enhancement, and increasingly needs to focus on fuels and fire management. This range of practices include a diversity of partners and actions on the ground. Associated jobs and economic activity were not assumed to represent an important workforce and/or business opportunities in terms of their contributions to community well-being within the original plan, which instead focused on timber and non-timber forest product contributions. However, in many instances the jobs and economic activity associated with these practices has eclipsed timber management in their direct economic and social contributions over time.

Nontimber forest products include products from the forest other than commercial timber, including for example, noncommercial timber (smaller diameter wood products), medicinal plants, fungi and berries, many of which also hold cultural values. This includes activities such as brush clearing, thinning work, road decommissioning, and bank stabilization which can generate labor-intensive and machinery intensive forest work and jobs and local economic benefit.

Existing contracting and agreement structures in the NFS do not tend to prioritize local infrastructure and capacity in how work is packaged and advertised for bids. However, per the goals of the Plan, there are key opportunities to improve local capture of the non-timber stewardship and

conservation practices, with co-benefits for historically timber dependent rural communities in the Plan area. This can also provide support for another Plan component for economic diversification of the workforce, thus contributing to the economic well-being of communities in the Pacific Northwest that still maintain or want to expand their forestry and conservation workforce(s)/opportunities. An emphasis on both timber and non-timber forest products reflects broader ecological and economic considerations in forest management.

Partnerships for Sustainable Utilization: Leveraging and expanding the use of partnership tools links to the NWF's approach to involve various stakeholders in decision-making processes, including local communities and organizations.

The Plan should consider the community nexus with timber and nontimber forest products, and the local, regional and other communities of place and practice that depend on these products.

Increase Local Capture of Work: The emphasis on increasing the local capture of work, valuing local knowledge, and considering the climate benefits of localizing operations corresponds to the NWF's broader objectives of sustainable resource use and environmental conservation.

This issue links to the Bioregional Assessment Recommendation 7, and as noted, "Combining an ecological forestry approach (Evolving Timber Harvest Methods; chapter 3, Sustainable Timber) with timber production would help support a more predictable and sustainable supply of timber in the BioA area, where timber processing infrastructure and workforce both play a critical role in meeting restoration needs"³⁷

Ideas/Options:

- Overall, develop and refine plan elements that improve predictability and certainty of non-timber stewardship practices, and that drive processes for engaging, sustaining and growing local workforce, business and partnership economic capture from the planning, implementation and monitoring of those practices.
- The Forest Service should work to ensure that non-timber/conservation practices/actions provide workforce and economic contributions to communities within the plan area. To accomplish that, the agency should consider, with their partners, the utilization of the full range of partnership tools to leverage partnership, capacity and affect local economic benefit, including but not limited to increased use of stewardship contracting that requires local benefits.
 - *Desired Condition:* Sustained or increased scope, scale and range of partnership tools used at the district and forest levels, with a preference for local infrastructure/capacity, when it exists.
 - *Desired Condition:* Sustained or increased scope, scale and range of partnership tools used at the district and forest levels, with a focus on investing in and increasing local infrastructure/capacity where community initiative exists to grow capacity.

³⁷ Bioregional Assessment, Chapter 4, Sustainable Timber

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- These potential recommendations are intended to highlight the suite of non-contracting pathways through which nontimber work can be done. Much of this work can be done through other pathways than contracts, and is likely more feasible to result in implementation as well.
- The Forest Service should package at least a fraction of their contracts in ways that can be more accessible to local private operators. To accomplish that, the agency should intermittently assess local cooperator and contractor interests and capacities to help align their management actions and contract packaging to be accessible to those local cooperators and operators. At least annually, the agency (forest level?) should host a meeting(s) open to local cooperators and operators (and other interested parties) to discuss and assess interest and capabilities for different types of work (e.g. labor intensive, mechanical, technical). This information would inform FS strategies, the packaging of contracts and advance additional partnership development.
 - *Desired condition:* increase in local capture by local cooperators for neighboring forests, achieved through a combination of cooperative agreements and contract packaging methodologies. [Probably beyond what can occur with contracting: The FS offers work to local cooperators and operators first, before expanding their package and bid opportunities to broader geographies]
- NWFP amendments should include plan components that require planning and analysis to facilitate more efficient use of biomass, including consideration of:
 - Reduced or waived fees or biomass, classification of biomass as non-commercial, and other steps to streamline appraisal and acquisition processes.
 - A biomass utilization overlay across land allocations that would provide guidance for biomass utilization.
- NWFP amendments should include plan components that require planning and analysis to better facilitate cross boundary climate change and fire resilience treatments, including consideration of:
 - Risk analysis and other planning tools of federal land and adjacent ownerships.

Alternatives or Potential Planning Routes:

- Amendment – new provision
- Implementation – make a management priority

Priority: High

TRIBAL WORKFORCE AND ECONOMIC CONTRIBUTIONS

Why/Rational/Intent:

- There is a broad need for support (policy, financial, infrastructure) for workforce opportunities and capacity building in natural/cultural resources, wildlife, fire and forest stewardship in Tribal communities across the planning region.

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- There is a need for support for education, curriculum, internships, credentialing/ certification, higher education and post-grad and pathways to and opportunities in culturally appropriate jobs in Tribal territories related to forest stewardship, cultural fire/Rx fire, wildlife and biodiversity monitoring, habitat restoration, and climate change research/monitoring/adaptation planning.
- There is a need for more Tribal influence on decision-making related to wildfire response, fire management workforce deployment and accountability.
- More opportunities and more support for Tribal communities' and Tribal-run businesses' participation in forest industries.
- Need to increase tribal engagement/leadership and access for subsistence and cultural uses.

Connection to NWFP: NA- no relevant content in original NWFP formulation. In amendments, Plan elements can drive local management units and USFS administrative systems to consider local Tribal interests as first option for a meaningful subset of work and business opportunities. Land allocations and S&Gs that have the primary purpose of honoring local TEK and Tribal self-determination could/should facilitate the workforce and business opportunities that Tribes and Tribal people are most interested in cultivating (as opposed to purposing tribal people towards current USFS work and employment structures). The agency needs to increase partnership and grant opportunities with **Tribes** to increase capacity for reforestation as a component of moving vegetation toward desired conditions following large-scale disturbances.

Ideas/Options:

- Increase Tribal community workforce opportunities and capacity building in natural/cultural resources, forest stewardship, fire and cultural/natural resources and wildlife monitoring in across the planning region.
 - *Desired Condition:* increased partnership, job and grant opportunities with Tribes that will enhance capacity for forest stewardship to manage forest structure and composition according to desired conditions supporting cultural use species and habitats.
 - Objective: USFS to designate NF land for use for Tribal workforce office space and workforce housing needs
 - Develop S&Gs for prioritizing (a percentage of?) contracts for forest stewardship and construction, fire, wildlife and veg. monitoring with Tribal-led businesses and organizations. Develop language and plan elements that drive local management units and USFS administrative systems to consider Tribal interests as a first/priority option for a meaningful subset of work and business opportunities. *This relates to issue 2 above around pathways for work in the rods other than contracts, to increase implementation and partnerships.*
- Consider land allocations and S&Gs that have the primary purpose of honoring TEK and Tribal self-determination, which could/should facilitate the workforce and business opportunities that tribes and tribal people are most interested in cultivating (as opposed to purposing tribal people towards current USFS work and employment structures).
- Focus on Tribal inclusion:
 - *Objective* to jointly develop and implement programmatic agreements (memoranda of agreement, memoranda of understanding, master stewardship agreements) between the units and consulting American Indian Tribes, to guide consultation processes and develop co-stewardship opportunities that include economic and livelihood strategies reflecting the Tribes' particular perspectives and interests on

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- Tribal Workforce, livelihood and economic issues, and facilitate the workforce and business opportunities that Tribes and Tribal people are most interested in cultivating (as opposed to purposing tribal people towards current USFS work and employment structures).
- *Desired condition:* co-stewardship and Tribal-led management activities that support cultural uses and provide economic benefits (e.g. jobs, contracts, grant revenue, infrastructure) to Tribal communities.
 - An example to consider could be drawn from [Klamath Tribes Master Stewardship Agreement](#): Exchange of goods and services: establishes basis for USFS to pay Klamath Tribes for their services in implementing stewardship projects, and vice versa
 - *Desired condition, based on SQF (TERR-FW-DC-11):* Vegetation provides sustainable amounts of cultural use species such as edible and medicinal species, fiber for basketry, or regalia or ceremonial use species, e.g. boughs, bark, berries, bulbs, stems and cones for use by Tribal communities across the planning area. These products are provided while respecting Tribal treaty rights, Tribal trust obligations and other Tribal rights and sustaining wildlife habitat, soil and water quality. SQF related language: “Jointly develop and implement memoranda of agreement and memoranda of understanding between the units and consulting American Indian Tribes, to guide consultation processes and reflect the Tribes’ particular perspectives and interests, with Tribes leading work development and co-management. SQF Objective (TERR-FW-OBJ-03): Implement restoration, enhancements, fuels reduction, or maintenance actions in at least three areas of Tribal importance within 15 years following plan approval”.
 - Recommendation to consider for implementation: Reliable funding to support Tribal leadership (natural/cultural resources and wildlife directors/manager/staff) to participate in co-stewardship, consultation, staff to run monitoring, planning and mgmt. programs and admin support, IDT teams for NEPA, joint-monitoring efforts.

Other ideas for future discussion:

- Tribal workforce, capacity building or youth opportunities in fire management. Implementation idea includes considering the USFS Indian Service Youth Corps - workforce development program for Indigenous youth to work on conservation crews on federal and Tribal lands in the *USFS Co-Stewardship Priorities and Programs - [2023 Annual Report on Tribal Co-Stewardship](#)*

Alternatives:

- Amendment – new provisions
- Implementation – make management a priority

Priority: High

RECREATION – ACCESS, EQUITY, QUALITY OF EXPERIENCE, ADVERSE COMMUNITY-OF-PLACE IMPACTS

Why/Rational/Intent: Some communities within the NWFP area experienced major economic impacts as a result of the reduction in timber extraction revenue since 1994. More recently, the economic activity and tax base of rural communities near National Forests have diverged based in part by those communities' proximity to specific amenities. The *Synthesis of Science to Inform Land Management Within the Northwest Forest Plan Area* states that natural amenities associated with outdoor recreation have driven population growth and local community development in these communities.³⁸ According to the *Bioregional Assessment of Northwest Forests*, recreation on federal lands in the NWFP area supported 7,800 jobs and recreation visitors spent about \$613 million annually in the communities within about 50 miles of those national forests.³⁹ In addition to economic impacts, recreation is cited in the Science Synthesis as a key cultural ecosystem service that benefits health and well-being.⁴⁰ Visitation to national forests in the NWFP area is expected to grow along with the overall population.⁴¹ The influx of visitors and residents can have adverse community impacts. The cost of housing may increase and there may be new demands on infrastructure, public services, and tax revenue.⁴² Growing visitation has also been found to have impacts on wildlife, treaty resources, and cultural rights.⁴³ Sustainable recreation management is critical to both fully realize community benefits and address adverse impacts to Tribes and communities.

Connection to NWFP: The 1994 Northwest Forest Plan does not offer uniform management direction related to recreation. As the Bioregional Assessment states,

“In contrast to the NWFP’s guidance for natural resource management, there is no overall consistency to recreation management. The lack of uniform management direction related to recreation inhibits our ability to effectively and efficiently address management concerns for resources that cross multiple administrative boundaries...**The increasing demands and economic significance of recreation activity as well as the impacts of excessive deferred maintenance and a changing climate was not anticipated in 1994.**”⁴⁴

³⁸ NWFP Science Synthesis, Ch. 8, pg. 648.

³⁹ NWFP Bioregional Assessment, pg. 12

⁴⁰ NWFP Science Synthesis, p. 748

⁴¹ Ibid, p. 755

⁴² Headwaters Economics, <https://headwaterseconomics.org/outdoor-recreation/amenity-trap>

⁴³ The Tulalip Tribes, <https://nr.tulaliptribes.com/Base/File/NR-Tulalip-Recreation-Impacts-to-Wildlife-2-28-21-v2>

⁴⁴ NWFP Bioregional Assessment, pg. 36

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The Bioregional Assessment presents 10 key recommendations for improving land management plans in the BioA area. Recommendation 10 is to “recognize the social and economic benefits to communities and people from sustainable recreation opportunities.”⁴⁵ The management challenges and opportunities for change include⁴⁶:

- There is a need for land management plan direction that sustains recreation opportunities considering increasing use and the need to maintain existing developed recreation sites.
- Land management plans need proactive direction to address the potential effects of climate change and other landscape-altering events on recreation and its infrastructure.
- Recreation management direction needs overall cohesion and consistency within and across the 19 national forests and grasslands in the BioA area to effectively and efficiently sustain recreation opportunities.

The 2012 Planning Rule addresses recreation as part of social and economic sustainability, and says that plans revised under the rule “must include plan components, including standards or guidelines, to guide the plan area’s contribution to social and economic sustainability, taking into account...(2) Sustainable recreation; including recreation settings, opportunities, and access; and scenic character.”⁴⁷

Ideas/Options: List of potential sustainable recreation plan components – many of which are pulled from recent forest plans revised under the 2012 planning rule, and some of which are drafted by FAC members:

Desired Conditions:

- The diverse landscapes {of the NWFP area} offer a broad range of seasonal and year-round nature-based recreation opportunities. (Sierra Sequoia, REC-FW-DC 01)
- The design, condition, function, and accessibility of recreation facilities accommodate diverse cultures. (Sierra Sequoia, REC-FW-DC 02)
- An array of high-quality accessible recreation opportunities are available to persons of all ability and experience levels, including those with disabilities. (Nantahala Pisgah REC-DC-12)
- Recreation areas are inviting and inclusive of a culturally diverse population, engaging to youth, welcoming to under-served public, and responsive to shifting demographics. (Nantahala Pisgah REC-DC-13)
- Recreation opportunities provide a high level of visitor satisfaction, while minimizing user conflicts. The range of recreation opportunities contribute to social and economic sustainability of local communities. (Sierra Sequoia, REC-FW-DC 03)

⁴⁵ Ibid

⁴⁶ Ibid, pg. 65.

⁴⁷ 2012 Planning Rule, 36 CFR 219.8(b)

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- Recreation activities across the Forests contribute to the sustainability of the social and economic values of local communities through jobs and income in the local economy, community stability or growth, and the quality of lifestyles in the area. (Nantahala Pisgah REC-DC-11)
- Recreation opportunities are balanced with management capacity to manage sites to agency standards. (Sierra Sequoia, REC-FW-DC 04)
- Areas of the {Forests} provide for a variety of recreation opportunities with minimal impact on sensitive environments and resources. (Sierra Sequoia, REC-FW-DC 05)
- Visitors can connect with nature, culture, and history through a range of sustainable outdoor recreation opportunities and are committed to resource stewardship. (Sierra Sequoia, REC-FW-DC 06)
- The management and operation of facilities are place based, integrated with other resources, and responsive to changing environmental, social, and economic conditions that may limit or alter access. (Sierra Sequoia, REC-FW-DC 07)
- New developed recreation infrastructure is located in ecologically resilient landscapes, while being financially and ecologically sustainable, and responsive to public needs. (Sierra Sequoia, REC-FW-DC 08)
- Dispersed recreation occurs in areas outside of high visitation, developed facilities, or communities, and does not adversely impact natural or cultural resources. (Sierra Sequoia, REC-FW-DC 09)
- Permitted recreation uses, such as recreation special events or guided activities, protect natural and cultural resources, and contribute to the economic sustainability of local communities. (Sierra Sequoia, REC-FW-DC 10)
- Recreation information is current, connecting people to the {Forests} through contemporary means including social media and available technology. Diverse communities are aware of recreation opportunities on the Forest. (Sierra Sequoia, REC-FW-DC 11)
- The {Forests} provides a range of year-round developed and dispersed recreation settings that offer a variety of motorized and nonmotorized opportunities and recreation experiences. (Sierra Sequoia, REC-FW-DC 12)
- A sustainable system of trails provides access to destinations, provides for opportunities that connect to a larger trail system, provides linkages from local communities to the {national forests}, and is planned, designed, and managed to be compatible with other resources. (Sierra Sequoia, REC-FW-DC 13)
- Trails meet trail management objectives based on trail class and designed use. (Sierra Sequoia, REC-FW-DC 14)
- Interpretation and conservation education materials and activities convey up-to-date and clear messages about natural and cultural resources, climate change, land stewardship, responsible recreation use and etiquette, and Native American heritage and culture. (Sierra Sequoia, VIPS-FW-DC-03)
- Resources are provided to Counties and Cities affected by recreation users to provide adequate law enforcement, infrastructure, and search and rescue services. (FAC member recommendation)

Goals:

- Coordinate with local and national partners early in project development to elicit collaborative input on sustainable recreation opportunities, needs, and potential conflicts. (Sierra Sequoia, REC-FW-GOAL 01)

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- Manage dispersed recreation activities when evidence of impacts to natural resources emerge or are causing damage. (Sierra Sequoia, REC-FW-GOAL 02)
- Promote effective communication with neighboring communities, urban populations, youth, and underserved communities to help foster partnerships, inspire volunteers, educate the public, and support stewardship that contributes to funding, implementation of projects, and long-term maintenance of facilities. (Sierra Sequoia, REC-FW-GOAL 03)
- Establish recreation collaboratives with neighboring communities to address community impacts of visitation to the Forests. (FAC member drafted)
- Improve facilities through individual and community stewardship. (Sierra Sequoia, REC-FW-GOAL 04)
- Enhance stewardship and monitoring through increased volunteer program activities and partner contributions. (Sierra Sequoia, REC-FW-GOAL 05)
- Collaborate with a variety of partners to collect trail use data and provide stewardship and interpretive services that enhance responsible recreation and increase knowledge of related socioeconomic and environmental issues. (Sierra Sequoia, REC-FW-GOAL 06)
- Provide accessible trails for individuals with mobility impairments. (Sierra Sequoia, REC-FW-GOAL 07)
- Manage infrastructure to meet the minimum needs of the associated uses and work with partners to increase funding capacity. (Sierra Sequoia, REC-FW-GOAL 08)
- Regularly report potential projects suitable for partnership and volunteer opportunities to the public. (Sierra Sequoia, VIPS-FW-GOAL 02)
- Maintain and expand contracting and partnering opportunities with local governments, businesses, and organizations. Develop partnerships that leverage different sources of funding to support opportunities to contribute to the economic and social sustainability of local communities. (Sierra Sequoia, VIPS-FW-GOAL 03)
- Work with partners and volunteers to provide, maintain and enhance recreation opportunities and the surrounding landscape, collect, and manage data on recreation use and demand, and contribute to socioeconomic benefits associated with recreation and tourism. (Sierra Sequoia, VIPS-FW-GOAL 04)

Guidelines:

- Avoid locating new recreation facilities within environmentally and culturally sensitive areas, such as at-risk species breeding habitat or at-risk plant species habitat. If avoidance is not possible, design facilities to maximize ecological sustainability, minimize impacts, and mitigate unavoidable impacts, in that order. (Sierra Sequoia, REC-FW-GDL 01)
- Create infrastructure that mimics the natural textures and colors of the surrounding landscape to minimize impacts to scenery. (Sierra Sequoia, REC-FW-GDL 02)
- Use integrated resource planning when designing projects to address impacts to culturally sensitive areas and at-risk species habitat, and to manage recreation opportunities. (Sierra Sequoia, REC-FW-GDL 03)

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- Design and implement management strategies to maximize ecological sustainability and minimize impacts associated with existing recreation sites that interact with sensitive areas such as at-risk species breeding habitat or at-risk plant species habitat. (FAC member drafted)
- Design and implement management strategies to minimize impacts associated with recreation sites that interact with reserved tribal treaty rights. (FAC member drafted, also incorporated into Tribal Inclusion SC recommended plan components)

Alternatives: Agency input would be helpful in determining if any of the suggested plan components are duplicative, would be challenging to implement at a landscape level, or if the list is missing any key elements. Alternatives include narrowing this list, editing particular example plan components, drafting new plan components, etc.

Priority: Medium

U.S. FOREST SERVICE – COMMUNITY RELATIONSHIPS

Why/Rational/Intent: Many communities feel left out when it comes to decisions/prioritizations on the national forests surrounding these local communities. In many instances these communities are economically dependent on the forests surrounding them, whether it be for timber production, recreational opportunities, or stewardship opportunities. Many communities have a deep distrust of the Forest Service due to lack of communication between the department and the local community on priorities within the local national forests vs. Local community needs. Much of this distrust stems from a lack of purposeful relationship building between the FS and local authorities as well as increased turnover at the Forest.

Connection to NWFP: When the NWFP was put into place, many promises were made to communities that promised a sustainable supply of timber that would contribute to maintaining infrastructure in these areas. Unfortunately, the Forest Service did not deliver on these promises and has damaged the trust within these communities.

A recent study of NWFP social and economic monitoring found evidence that “staffing declines, turnover, and long-distance commuting may contribute to decreasing agency engagement in some communities, and that diminished engagement by federal forest management agency employees may contribute to negative attitudes toward the agency. Agency employee interviewees suggested that incentives (i.e., promotions, opportunities to live elsewhere), internal conflicts, and a lack of opportunities and services for their families are reasons that staff commute from neighboring communities or leave their jobs. Our findings suggest that the USDA Forest Service may improve agency- community relationships by supporting its staff in ways that reduce turnover and long-distance commuting and incentivize community engagement... We suggest that understanding how communities are

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experiencing these changes is critical to effective creation and maintenance of trust, and collaborative activities, which are cornerstones of federal forest land management.”⁴⁸

Ideas/Options:

- Support staff in securing housing and key amenities in rural duty stations. The Forest Service should consider implementing financial and professional incentives for its employees to remain in rural, economically distressed, and underserved communities for the long-term. This would help build continuity, trust, geographic and community expertise, and increase direct economic and social benefits.
- Implement policies to reduce turnover and the frequency of moves. Suggest implementation of the turnover recommendations that the 2012 planning rule FACA committee put in place.
- Engage local workforce. Hiring locally could help build new or revitalize old connections with the communities in which duty stations are based.
- Build trusting relationships with communities. The Forest Service should consider predictable, regular community engagement activities at the forest level such as open houses, townhalls, and community field tours.
 - The Forest Service should consider publishing and clearly communicating (townhalls, social media, traditional press, its website) Forest Service “accomplishments” at the forest level on an annual basis: this is what we’re doing for you on your forests with your money. Information the public should expect to receive from the Forest Service could include: acres at risk, acres treated (progress the Forest Service is making), acres burned, number of recreational visits, economic impacts and costs to the local communities, number of employees, timber harvests (if any) and jobs and revenues contributions to counties, recreational accomplishments (trails and campgrounds built, expanded, or maintained), etc.
 - The agency should increase its partnership building activities and mechanisms for collectively accomplishing shared goals with existing or potential partners.

Alternatives: None identified at this time

Priority: Not identified at this time

⁴⁸ Anna R Santo, Michael R Coughlan, Heidi Huber-Stearns, Mark D O Adams, Gabriel Kohler, Changes in Relationships between the USDA Forest Service and Small, Forest-Based Communities in the Northwest Forest Plan Area amid Declines in Agency Staffing, *Journal of Forestry*, Volume 119, Issue 3, May 2021, Pages 291–304, <https://doi.org/10.1093/jofore/fvab003>

COMMUNITIES AND FIRE, LAND USE

Why/Rational/Intent: Through a combination of increasing exposure (i.e. more development in the Wildland Urban Interface (WUI), climate-forced increases in fire season length and intensity), steady sources of ignition, and reduced fire suppression efficacy (both initial and extended attack, for many and complex reasons including fuel load accumulation in dry forests), the safety and wellbeing of communities within the NWFP area is at elevated and increasing risk from negative effects from wildland fire originating on, or burning through, National Forest System lands. Bioregional Assessment Area (BioA page 56).

Coupled with forest conditions conducive to uncharacteristically severe wildfires, this increase in the populations of towns, communities, and rural residential areas has placed an ever-greater number of people and corresponding infrastructure at risk.

In response, Congress and the USFS have provided increasing direction and impetus towards comprehensive risk and hazard reduction strategies (e.g. National Fire Plan, Cohesive Strategy, Wildfire Mitigation and Management Commission, etc.). Most recently, the USFS and Congress have prioritized the nation's highest risk fireheds for substantial investments under the "Wildfire Crisis Strategy", wherein monies are targeted towards hazardous fuels reduction focused on those communities most at-risk from fires transferring from federal lands with resulting treatments spanning NWFP land use allocations across several WCS landscapes within the NWFP area.

Further, communities and associated infrastructure (particularly electrical transmission and distribution systems) running within and adjacent to NFS lands represent an increasing threat to NFS values with many examples of power infrastructure failures causing some of the most devastating wildfires to communities within the NWFP area over the last 30 years. Vegetation on NFS lands within and adjacent to powerline rights-of-way have contributed to several incidents that have negatively affected communities and natural resources.

Connection to NWFP: While the NWFP did address some elements of fire ecology and management, the plan did not include substantive elements focused on community fire protection or adaptation. However, the BioA states:

"Land management plans need to address strategic wildfire-risk mitigation in and around communities in the wildland-urban interface and around infrastructure. There's been a dramatic increase in people living in the wildland-urban interface (figure 4-5)...To ensure that fire management needs are supported, plan direction needs to be better aligned with today's understanding of fire management and fire strategies, as well as with land management allocations"

Ideas/Options:

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- Direct the agency to assess, plan, implement and maintain strategic fuels management actions and infrastructure that reduce hazards and risks to communities spanning land allocations.
- Direct the agency to engage in **processes** that engage communities and key stakeholders in strategic fuel management planning, fire management, and other community-led and cross-jurisdictional hazard and risk reduction activities (e.g. development planning, right-of-way management, mutual aid fire response, evacuation planning, etc.)
- Both within and adjacent to legal utility right-of-ways, direct agency to provide flexibility across LUAs and associated standards and guides to reduce hazards (e.g. tree and limb strikes to lines/electrical equipment, ladder and surface fuels, etc.) where utility infrastructure is exposed to direct hazard from vegetation (live and/or dead) on NFS lands.

Alternatives: Could make some goal statements in the plan such as:

- the agency will fully participate in periodic community wildfire protection planning, responsive to local community and state processes;
- the agency will seek to engage in continuous processes (collaboration, fire safe councils, list other forums communities use for prioritization and preparedness planning)-directing agency to be active individuals in this space.
- Direction to collaborate at the individual forest and management unit levels.
- Could this have a goal, objective and desired future condition? Maybe has a guideline?

Desired future conditions: across the NWFP area, the development of strategically placed fuel and fire management features span land use allocations to facilitate effective fire management for the purpose of community protection

Objective: Allow flexibility across LUAs to effectively construct shaded fuel breaks, primary control lines, and fuel reduction projects. Allow for the cutting of some larger trees if needed.

Identify guidelines that get to enforceability around what "allowing flexibility across LUAs" means. Guidelines that say where the application of strategic fire management features that require prescriptions that may be in conflict with desired future conditions for another land use allocation. Flexibility would be provided to achieve these fire management project management objectives and implementation. Guidelines on this would give at least some enforceability.

Nez Perce (Fire Management FW-GL_FIRE-04): Fire hazards in wildland urban interface areas are continually monitored. Project development, planning, and treatments are coordinated with local and tribal governments, agencies, and landowners to reduce the risk from wildland fire.

(FW-DC-TBR-05): Timber harvest in the wildland urban interface reduces fuel loads and mitigates the risk of wildfire affecting the adjacent populated areas and provides for safer firefighting conditions. –

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Nez Perce Example (general suitability-timber production introduction): Timber harvest may be used as a tool for the purpose of maintaining or restoring other resource values in lands not suited for timber production due to capability and some lands in areas not suited for timber production due to legal availability. Examples include...reducing fire hazard in the wildland urban interface..."

Sequoia NF Plan (2023): "Community Wildfire Protection Zone

The community wildfire protection zone encompasses locations where communities, community assets, and private land could be at a very high risk of damage from wildfire where high fuel loadings exist. Wildfires that start in this zone contribute more to potential loss of community assets than any other strategic fire management zone.

Although some wildfires that burn in this zone can potentially benefit natural resources and help decrease fuels and threats from future wildfires, these potential benefits are less likely under most weather, fuel moisture, and other environmental conditions due to the very high risk to community assets during the fire season. The long-term focus is to create fire-adapted communities that are less reliant on aggressive wildfire protection. Under most weather and fuel conditions, wildfire mitigation, fuel reduction treatments, and fire protection is needed in the community wildfire protection zone to prevent direct threats to life or property. Wildfire is suppressed under most weather and fuel conditions due to the very significant risk of potential economic loss and public safety concerns posed by a wildfire occurring within this zone.

Within this zone, community buffer areas are identified and used to strategically reduce or rearrange fuels or thin vegetation directly adjacent to structures and provide safer conditions for firefighters including by mitigating most or all snags that present a safety hazard. Most forest plan components that restrict various aspects of vegetation treatments include exceptions for community buffers to better provide for firefighter safety. Community buffer widths are measured from the structures in the community. The maximum width is based on potential fire behavior in adjacent areas under extreme fire weather conditions (i.e., 97th percentile weather, probable average momentary wind gusts). The maximum width is sufficient to provide low radiant heat from areas of untreated fuels (i.e., four times the potential maximum flame length in adjacent areas on slopes less than 40 percent and six times the potential maximum flame length in adjacent areas on slopes greater than 40 percent).

Desired Conditions (FIRE-CWPZ-DC)

01 Areas adjacent to communities with current high fire risk have low fuel loadings, designed to result in less intense fire behavior and to facilitate safe wildland fire operations. In some cases, terrestrial ecosystem desired conditions may not be met.

02 Over time, risk to communities is reduced sufficiently in the community wildfire protection zone to allow some areas to be placed in a lower risk zone, including the general wildfire protection or wildfire restoration zones.

Goals (FIRE-CWPZ-GOAL)

01 Protect communities (life and property) from the negative impacts of wildfire.

02 Reduce the impacts of wildfire on communities through fuel reduction treatments, prescribed fire, and managing wildfires that can benefit natural

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resources while reducing risk.

03 Help communities become more fire-adapted and improve their ability to withstand a fire without loss of life and property.

04 Work with partners and adjacent landowners to support or contribute toward defensible space as defined by California Public Resource Code 4291.

Standard (FIRE-CWPZ-STD)

01 In community buffer areas, fuels treatments take precedence over riparian conservation area guidelines when necessary to meet fire behavior objectives. On a site-specific basis, higher levels of large logs may be retained in some areas.

Guidelines (FIRE-CWPZ-GDL)

01 When planning and implementing projects around communities, manage vegetation in community buffer areas to meet the following conditions:
a Reduce fuel loads to provide a safe place to deploy needed resources to protect structures and allow for firefighter safety during a fire event. After treatment, these areas may not meet stand structure or densities terrestrial vegetation desired conditions.

b Minimize snag and log densities to reduce the likelihood of spotting or ember ignitions, maximize fireline production rates, and reduce firefighter safety hazards.

- No snags should exist within 2.5 tree lengths distance from structures.

- Less than 1 large downed log per acre should exist within 2.5 tree lengths of structures.

02 To protect communities, locate fuels treatments in areas that pose the greatest fire threat.

a Ensure sufficient treatments increase and improve tactical opportunities to manage wildfires and reduce the spread rate and intensity of wildfires.

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b Consider placing treatments along ridges, roads, or other natural or human-made features."

Priority: Not identified at this time

LESS REGULATORY BURDEN ON PRESCRIBED AND CULTURAL FIRE

Why/Rational/Intent: Evidence shows significance importance of fire in the landscapes throughout NWFP area, in many different ecotypes, anthropocentric and natural (i.e., lightning). Low-severity and managed fire is known, using the best available science, to mitigate many ecological issues and enhance biodiversity in many ecosystems. However, a major issue with incorporating prescribed fire, or any intentional forms of fire ‘lighting’, understood to be proactive management, as a key management tool in areas of high fire risk and fire adapted ecosystems are the regulations that oftentimes burden the use of prescribed fire as a viable and consistent tool. Regulations regarding smoke emission, permitting and approval avenues through USFS or other organizational policy.

Connection to NWFP: Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl, Section C-17: Fire Suppression and Prevention.

The NWFP currently limits the use of beneficial fire from Late-Successional and Old-Growth (MOG) forests due to the need to preserve it. However, best available science indicates the need to incorporate beneficial fire, prescribed fire or cultural fire, to help mitigate wildfire risks, enhance ecosystem health and the enhancement of MOG forests.

Ideas/Options:

- Add/amend S&G (C-17) to promote fuel treatments in LSRs that are designed to facilitate beneficial fire inclusion, rather than fire exclusion, to promote key late-successional elements. Indigenous cultural fire and low-medium severity natural wildfires are key processes in maintaining late-successional structure and species biodiversity.
- Add S&G to evaluate the impact of discretionary limited operating periods on prescribed burning/cultural fire use to favor restoring fire where short-term impacts to species are acceptable for long-term benefits.
- Add a Goal to ensure before implementation of any directives that place undue regulatory or administrative burden on prescribed and cultural fire, those directives must be comprehensively assessed for their impacts on fire restoration goals and long-term ecosystem health.
- Add a Goal to work with other agencies regarding regulatory processes governing smoke management and air quality to better acknowledge regulatory and process burden to increase acres of burning. Direct USFS to work with Tribes, EPA, DOI and state agencies to evaluate current federal regulations and guidance around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial fire, while ensuring protection of public health, in a manner consistent with the Clean Air Act.

Alternatives:

- Evaluate the significance and use of burn bans. Implemented restrictions should be designated in National Forests with high wildfire risk/prone areas within reason of significant evidence of seasonal threats and other indicators.
- Add a GOAL to eliminate the need for specific Designated Line Officers to be present at prescribed fires, instead provide direct NWCG qualified burn boss, and/or a person certified to conduct prescribed fire operations.

Priority: High- foundational to enhances the use of fire in fire-adapted ecosystems and wildfire mitigation.

POST-FIRE SALVAGE

Why/Rational/Intent: The NWFP Science Synthesis highlighted the severe negative effects that post-fire salvage logging can have on the northern spotted owl, biological diversity, and ecosystem integrity. Specifically, the Science Synthesis states that “...spotted owls do not persist in areas with past timber harvest, high-severity fire, and salvage logging. Coupling wildfire and salvage logging results in a high probability that a burned site will remain unoccupied by spotted owls for several decades.”⁴⁹ Furthermore,

Postfire salvage logging can have other significant negative consequences to a forest ecosystem, especially when conducted over large areas. The practice disrupts abiotic and biotic processes, reduces or eliminates biological legacies, simplifies post-disturbance structural complexity, alters vegetation recovery, diminishes natural patterns of landscape heterogeneity, facilitates invasion of nonnative species, decreases native biodiversity, increases susceptibility to erosion and repeated high-severity disturbances, and eliminates the restorative benefits of disturbance events.⁵⁰

The BLM’s 2016 RMPs prohibited salvage logging in Moist Forest LSRs following wildfires, except where necessary to protect public safety or to keep roads and other infrastructure clean of debris.⁵¹

However, in some circumstances limited salvage logging may be ecologically appropriate salvage needs to be dealt with differently in Dry (frequent-fire) and Moist Forest ecosystems. Salvage is almost always ecologically inappropriate following severe wildfire in mature and old Moist Forests. Such forests are characterized by very high levels of live and dead biological legacies that are important to the development of the post-fire ecosystem, as noted in the Science Synthesis. The majority of the Dry Forests have built up unnatural levels of shade-tolerant trees and other fuels; consequently, when such stands

⁴⁹ NWFP Science Synthesis Executive Summary, p. 57.

⁵⁰ Ibid.

⁵¹ Johnson et al. 2023. The Making of the Northwest Forest Plan, p. 318.

burn, large uncharacteristic amounts of fuel are left behind. Partial salvage, particularly of more decay-prone species will often be appropriate in order to create conditions suitable for prescribed wildfire. Larger dead standing trees of decay resistant species, such as ponderosa pine and western larch, should be retained as important structural legacies.

Connection to NWFP: The NWFP contains three pages of guidelines for salvage logging in LSRs.⁵² Those guidelines have been described as follows by some leading scientists and co-authors of the NWFP:

The NWFP gave vague and potentially conflicting guidance on protecting old trees and mature and old-growth forests during salvage in LSRs after wildfire. The plan's salvage guidelines in LSRs were intended to prevent immediate and long-term negative effects in late-successional habitat, while permitting removal of some commercial wood volume. Commercial harvest there would need to be compatible with the NWFP's direction for LSRs to protect and enhance late-successional ecosystems, including redevelopment of late-successional forest attributes.

Salvage guidance was not given for Matrix/AMA, except to note that management after stand-replacing events would differ from that in LSRs in allowing more freedom in commercial salvage of dead trees and making replanting of disturbed areas a higher priority. Retention of biological legacies at harvest was not required.⁵³

Ideas/Options:

- In moist forests, prohibit salvage logging in LSRs after wildfires or other disturbances, with exceptions for public safety and road access.
- In dry forest LSRs, consider salvage to reduce fuels and prepare sites for prescribed fire. Such salvage must retain larger dead trees, particularly of more decay resistant species. Large, dead trees must be maintained to provide habitat for snag-dependent species such as white-backed woodpecker and for carbon retention.
- Salvage in Matrix and Adaptive Management Areas, if undertaken, should follow the general principle of significant structural retention of the larger and more decay resistant species.
- If not already addressed in NWFP, S&G for not salvage logging on steep slopes or wet soils.

Alternatives:

- Keep the status quo.
- No post-fire salvage logging allowed on any NWFP lands except for public safety and road access.

⁵² NWFP, p. C-13-16.

⁵³ Johnson et al., p. 370-71.

Priority: Medium

POST-FIRE MANAGEMENT ISSUES (BEYOND SALVAGE LOGGING)

Why/Rational/Intent: There is insufficient guidance within the Plan for post-fire management issues including *1) returning fire regimes (cultural fire, Rx, and wildfire) to post-wildfire burned areas and landscapes where applicable/appropriate and beneficial, 2) reforestation strategies that reflect diversity of native species and disturbance-succession processes, 3) an emphasis on post-burn sites for ecosystem resilience and climate change adaptation, 4) potential for post-fire salvage and management in plantations, re-burned, and younger stands to accelerate development of mature forests, especially where key elements (large snags and CWD) are now missing.* Together with ideas/options above for post-fire salvage logging, ideas regarding these post-fire management issues aim to move toward a holistic set of plan components related to managing post-fire environments that affirmatively emphasize and support the important ecological and cultural values of post-fire sites. Landscape fire generates a mosaic of effects across forest ecosystems, and it will be important to incorporate guidance inclusive of that full range of conditions. We are expecting to see more wildland fire through the future in the Plan region, and providing direction for managers to work in this post-fire condition and transparency to the public will alleviate a wide range of stresses and provide important efficiency to stewarding our forest ecosystems.

1) Return fire regimes to post-wildfire burned areas and landscapes where applicable, appropriate, and beneficial.

Connection to NWFP:

- Management after natural disturbance section of Basis for Standards and Guidelines B-8 thru B-9
- Basis for Standards and Guidelines - Ecological Processes B-2 thru B-4

Ideas/Options:

- Establish Desired Conditions for "fire-diverse" and "fire-adapted" forests that acknowledge multiple pathways for development of late-successional forests, including role of reburns in some forests. Modify language in Basis for Standards and Guidelines to better characterize this aspect of stand development highlighting specific areas or types of areas where this is most relevant.
- Specific S&Gs and/or Objectives for post-fire fuels management may also be relevant.
 - There are no currently detailed S&Gs for salvage (or other post-fire management) for Matrix LUA. Much of the content in the subcommittee options may be relevant to plan content, though some details (e.g., appropriate fire return intervals) may be too specific

for NWFP amendment (see below related to monitoring); for these details, the goal of amended plan content would be to establish enabling conditions for addressing these tactical details in implementation.

- Specific DC or S&G (outside of LSRs): Consider strategic post-fire thinning to create implementable burn units and restore fire processes and fire-adapted habitats in and adjacent to recent fire footprints and areas near homes and along critical access routes and infrastructure.
- Specific DC or S&G (Outside of moist LSRs): Consider post-fire tree removal (and prescribed burning- see below) as a tool for restoration in habitats affected by conifer encroachment (e.g. oak woodlands, meadows, grasslands, former plantations). Protect and retain older, larger, fire-resistant conifers and hardwoods; Retain hardwoods with potential for bole sprouting; Count natural hardwood, shrub and herbaceous regeneration needed to support diverse fire-adapted habitat mosaics in stocking requirements.
- Develop further affirmative language about Desired Condition (or other plan component) around prioritizing retention of large snags on the landscape following wildfire for wildlife habitat, and for drainage and wetland features (e.g. swales, seeps, riparian areas and in sensitive soils).
 - NFP as written contains this direction, but additional affirmative language could be helpful here.
- Desired Condition or Guideline directing removal of excess timber/fuels that are uncharacteristic of the ecosystem due to fire exclusion/management and help reorient stands to resilient dry forest condition. Provide specific guidelines in salvage for maintaining snags/downed wood/fuels from older trees as important legacies, large woody debris for instream habitat, and prioritization of removal of smaller diameter and uncharacteristic species.
 - NFP as written contains this direction, but additional affirmative language could be helpful here.
- Details to consider for potential plan components: When returning prescribed fire to wildfire footprints in dry forest settings: 1) Prioritize fire in fire footprints that have conditions such as a limited fuelbed, that allow for a lower complexity reentry of fire (typically 0-12 years, some 0-3 years), 2) Recognize the importance of maintaining low and moderate severity fire footprints., 3) Tailor fire regimes to support wildlife habitat features, 4) Prioritize high severity burned landscapes (needs further discussion); except where risk of debris flow/landslide is high.
- Monitor and manage invasives for at least 3 years post-wildfire; develop and implement mitigation/control strategies.
- Monitoring and research recommendation: Detailed fire history/ecology and engagement with Tribal communities and IS/TEK to reconstruct fire histories and model post-fire trajectories to help establish fire intervals/regimes for restoring ecological function and fire-adapted forests post-fire.
- Establish a Goal to work with Tribes to develop programmatic agreements and co-stewardship plans covering post-fire recovery actions.

2) Reforestation strategies that reflect diversity of native species and disturbance-succession processes.

Connection to NWFP:

- Basis for Standards and Guidelines - Role for Silviculture B-4 thru B-6; Consider sharing past examples of R6 RF letters on reforestation.

- Basis for Standards and Guidelines - Ecological Processes B-2 thru B-4

Ideas/Options:

Plan amendments are not necessary to achieve this goal. This is an ongoing focus in R6's reforestation strategy, which is in development. This could further be emphasized in Regional Foresters' letters on reforestation. However, it would also be possible to add NWFP plan components specific to this topic. Desired Conditions could describe desired species composition that reflects diversity of native species and includes hardwood components when appropriate (in line with ecosystem integrity) and are adapted to expected climatic regimes. Specific guidelines for reforestation could include direction on this topic.

- From Sierra NF: "Reforestation of suitable lands should be designed to achieve stocking levels, spatial arrangements, and species composition to facilitate future vegetation desired conditions that allow for long-term resilience of the developing forest, while considering potential future plantation management, carbon carrying capacity, wildlife habitat, and climate change adaptation. Competing vegetation, fuel levels, and fire risk should be managed to provide for the long-term survival and vigor of reestablishing forests as they move toward maturity."
- Provide direction about what a "fully stocked" stand may look like in a climate-constrained world and recognizes the ecological pace and typologies of succession and has broad flexibility to tailor desired outcomes to the landscape
- Recognition that re-burns in early seral could have ecological benefits as disturbance-succession processes in many forest types. Establish Desired Conditions for "fire-diverse" forests (moist forests especially) that acknowledge multiple pathways for development of late-successional forests, including role of reburns in some forests. Modify language in Basis for Standards and Guidelines to better characterize this aspect of stand development highlighting specific areas or types of areas where this is most relevant.

3) An emphasis on post-burn sites for ecosystem resilience and climate change adaptation

Connection to NWFP:

- Basis for Standards and Guidelines - Role for Silviculture B-4 thru B-6; Consider sharing past examples of R6 RF letters on reforestation.
- Basis for Standards and Guidelines - Ecological Processes B-2 thru B-4

Ideas/Options:

- Add Desired Condition and plan components emphasizing evaluating post-burn sites for climate adapted reforestation, focused on younger stands or reburn/reset landscapes. Provide Guidelines for post-fire replanting that includes a diversity of native species, including hardwood,

woodland, meadow/grasslands and wetland species where appropriate with an emphasis on ecosystem resilience and climate change adaptation.

- Provide direction about what a “fully stocked” stand may look like in a climate-constrained world and recognizes the ecological pace and typologies of succession and has broad flexibility to tailor desired outcomes to the landscape.
- Create a Desired Condition around restoring fire adapted forests, habitats and ecological processes in post-fire landscapes.
- Create a Goal to work with Tribes to develop co-stewardship agreements covering revitalization of cultural species and associated habitats following wildfire disturbances.
- Add monitoring guidelines to survey post-fire vegetation regrowth (species and structure), fuel re-loading, wildlife habitat condition and cultural use species quality.
- Design silviculture management plans that describe planned silvicultural activities (initial planting, scheduled plantation management, thinnings, early burning, etc.) to get landscape and stands to desired composition and structure at age 80. Need more than just initial planting plan to demonstrate benefit to restoring late-successional conditions.

4) Potential for post-fire salvage and management in plantations within dry, moist, and transition forest settings to accelerate development of mature forests, especially where key elements (large snags and CWD) are now missing.

Connection to NWFP:

- LSR Guidelines for Salvage section C-13 thru C-16, esp. #8 C-15; Will need to clarify that this applies to burned plantations or younger stands or reburned areas where residual large snags/CWD are now essentially gone. Starting over from true early succession without legacy elements. Could use more aggressive silviculture to more rapidly grow 80 year old forests that will have desired species composition and desired spatial heterogeneity at age 80.

Ideas/Options:

- Develop a plan component (Goal, Desired Condition or S&G?) to encourage post-fire treatments (including salvage, thinning, prescribed burning and reforestation) in plantations and younger stands to accelerate development of mature forests, especially where key elements (large snags and CWD) are now missing.

WILDFIRE RESILIENT RECREATION

Why/Rational/Intent: Outdoor recreation activities are increasingly affected by severe wildfires. Wildfires impact outdoor recreation in a number of ways, including damage to recreation infrastructure, closures, smoke, damage to scenic values, impacts to local recreation economies, and more.⁵⁴

Forest health and outdoor recreation mutually depend on one another and management of them needs to be integrated. Doing so addresses the impacts and mitigating factors of outdoor recreation from catastrophic wildfires and climate effects.

There is considerable opportunity to more thoroughly incorporate outdoor recreation into the design, implementation, and monitoring phases of forest restoration projects. Anecdotally, forest health projects in the NWFP area are not consistently designed with input from USFS recreation staff and stakeholders within the recreation community. There are also numerous opportunities to restore recreation infrastructure as part of post-fire restoration and rehabilitation projects. Protecting recreation infrastructure, taking into consideration recreation concerns, and attempting to minimize unfavorable impacts to recreation users are integral to gaining the support of the recreation community for ecological forest restoration.

Connection to NWFP: The 1994 Northwest Forest Plan does not offer uniform management direction related to recreation. As the Bioregional Assessment states,

“In contrast to the NWFP’s guidance for natural resource management, there is no overall consistency to recreation management. The lack of uniform management direction related to recreation inhibits our ability to effectively and efficiently address management concerns for resources that cross multiple administrative boundaries...**The increasing demands and economic significance of recreation activity as well as the impacts of excessive deferred maintenance and a changing climate was not anticipated in 1994.**”⁵⁵

The Bioregional Assessment presents 10 key recommendations for improving land management plans in the BioA area. Recommendation 10 is to “recognize the social and economic benefits to communities and people from sustainable recreation opportunities.”⁵⁶ The management challenges and opportunities for change include: “Land management plans need proactive direction to address the potential effects of climate change and other landscape-altering events on recreation and its infrastructure.”⁵⁷

⁵⁴ Outdoor Alliance, “[Wildfire and Outdoor Recreation in the West](#),” pg. 3

⁵⁵ NWFP Bioregional Assessment, pg. 36

⁵⁶ Ibid

⁵⁷ Ibid, pg. 65.

FIRE RESILIENCE SUBCOMMITTEE

Ideas and Options

Working ideas for discussion January-February 2024

The 2012 Planning Rule addresses recreation as part of social and economic sustainability, and says that plans revised under the rule “must include plan components, including standards or guidelines, to guide the plan area’s contribution to social and economic sustainability, taking into account... (2) Sustainable recreation; including recreation settings, opportunities, and access; and scenic character.”⁵⁸

Ideas/Options:

General ideas include⁵⁹:

- Add a Desired Condition to increase the resilience of trail systems and other recreation infrastructure to high severity wildfire. Design new recreation infrastructure to be fire resistant and resilient.
- Integrate recreation resources and infrastructure into project prioritization for fuels projects and landscape-level fire planning. Fire and fuels managers should consider where fuel treatments might prevent loss of forests to high severity wildfire in high value recreation areas.
 - Example: Wildfire threat is reduced in areas where fuel conditions currently pose the highest risk to communities and community assets, such as powerlines, communication towers and developed recreation sites. (Sierra Sequoia, FIRE-FW-DC 07)
 - Example: Prioritize fuel treatments in areas that pose the greatest threat to communities and highly valued resources and assets. (Sierra Sequoia, Potential Management Approaches)
- Consider recreation assets and infrastructure in the design of forest health and fuels reduction projects. Whenever possible, avoid negative impacts to recreation infrastructure. Rehabilitate trails and other recreation infrastructure during project implementation.
 - Example: Fire management activities reduce fuel buildup, help maintain and protect habitat for a variety of species, reduce smoke from larger fires, provide added protection for communities and utility infrastructure, and restore fire on the landscape. These actions are also an integral part of achieving sustainable recreation, particularly by maintaining scenic attractiveness, integrity, and character. (Sierra Sequoia, FIRE-FW-DC 02)
- Implement multi-benefit projects in or adjacent to the Wildland Urban Interface that have joint wildfire risk reduction and outdoor recreation benefits. Where appropriate, conduct thinning, prescribed burns, and vegetation clearing around outdoor recreation infrastructure to make it more resilient to wildfire and to create defensible space for fire suppression.
 - Example: Wildfire threat is reduced in areas where fuel conditions currently pose the highest risk to communities and community assets, such as powerlines, communication towers and developed recreation sites. (Sierra Sequoia, FIRE-FW-DC 07)
- Consider the value of recreation infrastructure when designing permanent fuel breaks, so that the Forest Service can reduce wildland fire risks to outdoor recreation assets and their associated community benefits while still maintaining the scenery management objectives of a given area.

⁵⁸ 2012 Planning Rule, 36 CFR 219.8(b)

⁵⁹ Sources: Outdoor Alliance, “[Wildfire and Outdoor Recreation in the West](#)”; California Wildfire & Forest Resilience Task Force, “[California’s Joint Strategy for Sustainable Outdoor Recreation & Wildfire Resilience](#)”; Eastern Sierra Climate & Communities Resilience Project Recreation Prioritization Work Plan (2021-2025).

FIRE RESILIENCE SUBCOMMITTEE

Ideas and Options

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- Example: Consider maintaining, re-routing, or re-aligning existing system trails to provide for better fire management solutions. (Sierra Sequoia, Potential Management Approaches)
- Example: Scenery stability is enhanced through integrated fuels and forest health projects. (Sierra Sequoia, SCEN-FW-DC 05)
- Require coordination and consultation with Forest and District recreation staff while designing and planning forest health and fuels reduction projects. (Consider for FAC implementation recommendation)
- Require rehabilitation of recreation infrastructure during post-fire management. Within burned areas, prioritize forest health, hazard tree and vegetation removal near trails, slope stabilization around trails, and restoration of outdoor recreation facilities lost in wildfires.
 - Example: If existing or planned NFS trails are used for access or to create fire lines associated with prescribed burns or wildfire suppression, trails impacted by fire operations shall be repaired to meet agency standards for appropriate trail classes and use-types, including restoration of unique recreational values and use of sustainable trail design principles. (Nantahala Pisgah FS-S-04)
 - Consider a FAC implementation recommended change to the Burned Area Emergency Response program guidelines.
- Consider a Standard or potential management approach: Minimize wildfire-related area and facility closures to the smallest temporal and spatial extent possible. Target outdoor recreation site and area closures to the minimum area and time periods deemed appropriate to mitigate threats and minimize impact to the recreating public and commercial providers.
- Maintain roads to provide public access, meet management objectives, and support wildfire suppression.
 - Example: Forest infrastructure, such as roads, buildings, campgrounds, water systems, and bridges, is managed to provide for the planned use and protection of resources and is maintained for health and safety. (Sierra Sequoia, INFR-FW-DC 01)
- Develop education and enforcement strategies to reduce human causes of ignition of wildfires.
 - Example: Education and enforcement have reduced the likelihood of wildfire starts from people. (Sierra Sequoia, FIRE-FW-DC 08)
 - Example: Assess human-caused ignitions and implement prevention activities that reduce the likelihood of the most common human-caused ignition sources. (Sierra Sequoia, Potential Management Approaches)

Alternatives: Agency input would be helpful in translating these general recommendations into plan components, and analyzing other forest plans revised under the 2012 planning rule for other suggested plan components.

Priority: Medium

RECRUIT FUTURE MATURE AND OLD TREES

Why/Rational/Intent: Conservation of existing mature and old trees may not provide desired stand and landscape scale ecological functions, including through continued losses of mature and old forests to high severity wildfire. Recruitment of additional old forest structure across moist to dry settings over time will be necessary to achieve climate change mitigation, wildlife habitat, and forest resilience objectives.

Recruitment of “new” mature and old growth -- and characteristic ecological complexity, biodiversity, and resilience -- should be a focus of plantation stewardship, both in the matrix LUAs, the AMAs, and the LSRs. This would equate with retaining old trees and stands, and focusing on ecological restoration and resilience principles, each of which would be tailored to the biophysical setting.

Goals of ecological forestry in plantations would be to develop resistance and resilience to wildfire and other disturbance agents. Prescribed fire, recognition of positive effects of some expressions of wildfire, and experimental silviculture, need to be carefully studied, monitored, learned from to improve our capacity to recruit high value mature and old forest ecosystems from simplified stands in plantations.

New silvicultural guidelines may be needed to be developed through adaptive management to successfully recruit high quality mature and old growth stands and ecosystems from plantations, and the potential to incentivize the growing of old trees that may in fact be harvested from plantations - providing ecological and economic benefits. It may be appropriate to prioritize geographies, topographic settings, stand structure and composition for recruitment of future mature and old forest that align with conditions providing high potential as refugia (e.g., climate change refugia, fire refugia).

Connection to NWFP: The NWFP (p. C-12) includes guidelines for LSR Silviculture West of Cascades:

"The purpose of these silvicultural treatments is to benefit the creation and maintenance of late-successional forest conditions. Examples of silvicultural treatments that may be considered beneficial include thinnings in existing even-age stands and prescribed burning. For example, some areas within Late-Successional Reserves are actually young single-species stands. Thinning these stands can open up the canopy, thereby increasing diversity of plants and animals and hastening transition to a forest with mature characteristics."

However, the Plan lacks language about the purpose of silvicultural treatments also including increasing resistance and resilience of managed forests to disturbances, especially climate-exacerbated wildfire but also drought, insects, wind, etc. This language could also refer to increasing "complexity," but this would need to be further defined. Increasing structural heterogeneity (both horizontally and vertically) as well as increasing species diversity, including increasing hardwood component, could be an element of this set of plan components.

The existing S&Gs for Matrix (p. C-39) focus specifically on coarse woody debris, green tree retention, and snag retention, but do not address resistance/resilience to disturbances. Amendment could add plan direction to Matrix S&Gs related to increasing resistance and resilience of managed forests to disturbances in line with what is described above for LSRs.

Ideas/Options:

- Establish and evolve AMA/adaptive management to study and adapt management direction for plantations toward the diversity of goals related to ecological value (wildlife, plant communities, broader ecosystem values), and resistance/resilience to disturbances, alongside economic returns.
- S&G to use refugia concepts and data to prioritize recruitment of MOG on plantations that have higher probability of maintaining conditions over longer duration, through resistance to high severity fire under a range of fire weather and spread conditions.

Alternatives: Status quo. This type of management is largely not precluded by current plan direction, and it could be addressed through regional direction in addition to plan amendment.

Priority: Moderate - High

AUGMENT CONSERVATION OF MATURE AND OLD FOREST SYSTEMS

Why/Rational/Intent: Mature and old forests have declined within the NWFP area since adoption of the plan 25 years ago, primarily from wildfires and also effects of insects and drought. Simultaneously, scientific understanding and public appreciation of mature and old forests have increased. For example, these forests sequester large amounts of carbon, are capable of resisting many impacts of climate change, and are critical for a broad range of biota, including endangered species. While the majority of these forests have been reserved from timber harvest, some of them are currently available for timber harvest under the plan.

Connection to NWFP: The NWFP protected mature and old trees primarily through a system of reserves (Late Successional Reserves, Riparian Reserves, and areas reserved administratively and by Congress). However, hundreds of thousands of acres of mature and old forests were left within the Matrix and Adaptive Management Area land allocations, which were to be available for timber harvest. Social and legal pressures prevented the Forest Service from extensive harvesting of these forests, but they remain unprotected and potentially subject to harvest under the current plan.

Lack of direction in the NWFP for management of the reserved forests is another problem. Currently it not only is inadequate but in the case of the Dry Forests actually discourages restoration in forests that need it most. Direction in the current standards and guides for restoration is very passive and, if done, focuses on areas of low priority (young forest) rather than on older forests where old trees are at risk. The current NWFP also fails to prioritize aggressive wildfire suppression in and around Moist Forest LSRs.

Appropriate conservation measures for mature and old forests differ given different forest successional and disturbance dynamics, particularly between Dry (frequent fire) and Moist (infrequent fire) forest ecosystems. For instance, the ecological value of mature and old Moist Forest is a function of extensive down wood, multi-layered canopies, and other structural complexity; hence, conserving these ecosystems intact with passive management strategies, such as protection from fire, is appropriate. In contrast, in seasonally dry, fire prone forests, mature and old trees are at risk from uncharacteristically intense wildfires. In these Dry Forest ecosystems active management is required to reduce tree densities and fuels, restore patchy structural conditions, and retain and nurture mature and old trees.

An important distinction In Dry Forests that needs to be emphasized in amending the NWFP is the contrast between Dry Forests in the Siskiyou-Klamath region of northern California and southwestern Oregon and those found on the eastern slopes of the Cascade Range. Dry Forests in the Klamath-Siskiyou region have a significant hardwood component which is important and needs to be accommodated in terms of ecosystem resilience, biodiversity and Indigenous communities. Mature and old forest conservation strategies need to recognize and adapt to this vegetative diversity.

Conservation of existing mature and old trees may not provide desired stand and landscape scale ecological functions. Recruitment of additional old forest structure over time will be necessary to achieve climate change mitigation, wildlife habitat, and forest resilience objectives. It may be appropriate to prioritize geographies for recruitment of future mature and old forests.

In general, conservation of mature and old trees is consistent with providing high quality habitat for a variety of species, including northern spotted owls and marbled murrelets. However, there may be important tradeoffs between conservation actions and viability of different species at different spatial and temporal scales. For instance, conservation of existing mature and old forest may trade off with creation of complex early seral habitat, although this can probably be compensated for in managing previously harvested forests (e.g., plantations). Active management, including thinning and prescribed fire in both Dry and Moist forests, may involve tradeoffs with the habitat needs of certain species at different time scales.

Ideas/Options:

- Conserve currently unprotected Old and Mature Moist Forest.
- Prioritize/Mandate active restoration management for Dry Forest LSRs by providing new management direction for Dry Forest LSRs emphasizing active management using mechanical and pyric means to restore these ecosystems to more resistant and resilient conditions, while recognizing

and retaining moist forest settings. Such Dry Forest restoration begins with retention of all mature and old trees (>150 years of age) and other large trees when they are not threats to older trees. Priority for restoration should be Dry Forest areas that still have significant populations of old trees. The goal of this management direction is to restore Dry Forest LSRs to structural and compositional conditions that are resistant and resilient to wildfire, as was the case in the historic forests. Use of the operational concept called “ICO” (individual, clusters, and openings) provides an approach that will produce structural heterogeneity based on historic natural forests. Plan components should recognize the variable forest types within any given Dry Forest LSR, with goals to pursue restoration in dry forest settings while recognizing and retaining embedded moist forest settings. Explicit language and recognition to affirm the value of legacy (mature and old stems) hardwoods for ecological and cultural reasons is necessary.

Alternatives:

1. Incorporate existing unreserved old growth and mature Moist Forests in the Late Successional Reserve system. The mature forests of interest are naturally-developed mature forests that originated prior to 1925. A model for how to modify the Moist Forest LSR network is the BLM-USFWS collaboration that successfully developed a revised BLM plan. Personnel from the FS and USFWS would work together to add unreserved mature and old forests to the existing Moist Forest LTR by modifying boundaries and creating additional LSRs. This process would likely result in additional small LSRs.
2. Analyze environmental and economic trade-offs resulting from removing some plantations from large block LSRs designations during EIS alternatives process, while incorporating existing unreserved older Moist Forests to the LSR system. Moving some of the previously harvested acres (plantations) currently in LSRs (currently about 40% of the LSR acreage) back into the Matrix would help to compensate for the additional reserved acreage. This analysis would recognize links to recommendations to restore ecological conditions and functions on plantations (in Matrix, LSR, and AMA LUAs), consider edge effects, fragmentation, landscape structure, and fire hazard associated with potential future management in these plantations.
3. Add a Plan component directing no cutting of mature and old growth for the next X years or until NWFP is revised again. Since this component does not include additional LSR designation it might provide more opportunity to bring in more MOG into protected status over time without additional amendment process.
4. Replace the existing system of reserves with protection strategies for all extant mature and old forests.
5. Extend the existing system of reserves to encompass all extant mature and old forest with new standards and guidelines.
6. Make protection of Moist Forest LSRs from wildfire a high priority. Significant acreages of older Moist Forest are burning in wildfires. Keeping wildfire out of Moist Forest LSRs needs to be given high priority by the Forest Service. This should involve an aggressive program of detection and suppression of wildfires in LSRs. These are scarce and valuable resources, which should be reflected in suppression programs, which currently emphasize infrastructure.

7. Change name of the LSRs in Dry Forest to signal management and not reserve, in order to reduce fire hazard and restore ecologically beneficial fire flow and stand conditions.

Priority: High

TRIBAL INCLUSION AND TRUST RESPONSIBILITY

For thousands of years, or since time immemorial, Indigenous communities across the Pacific Northwest (PNW) have stewarded the land and developed strategic and innovative management practices to sustain communities, ecosystems, and the reciprocity between them. An abundance of historical and scientific research shows that cultural practices and stewardship (e.g., burning, aquatic species and wildlife management, ceremonies, etc.) have contributed to the establishment and maintenance of Mature and Old Growth (MOG) habitats, supported fire-adapted ecosystems, and mitigated issues connected to changing climates across the PNW.

The Northwest Forest Plan (NWFP) area includes over 80 Tribal nations, and many more tribal communities and organizations throughout the 24.5-million acres of National Forest and other designated lands. Although there exists overlap and similarities, each tribe has different Treaty and legal rights, trust responsibilities reserved by the federal government, needs, perspectives, and unique approaches to ecosystem management and the adapting climate and landscapes. The original development and implementation of the NWFP in 1994 lacked any consultation, engagement, or partnership with tribes and neglected Indigenous Traditional Ecological Knowledge (ITEK) and cultural practices. This resulted in forest management planning that failed to adequately recognize and support Tribal sovereignty, co-stewardship, and management. Tribal communities have been greatly harmed by the lack of meaningful inclusion in the development and implementation of the NWFP.

For example, recent wildfires caused substantial damage to Tribal communities and ecocultural resources, including those protected by treaty rights. Over a century of fire suppression, coupled with the removal and regulatory restriction of Indigenous practitioners and management practices, has created structural barriers and mechanics preventing Tribal Governments and communities from enacting sustainable stewardship. Cultural resources that are part of many Tribal nations' treaty rights and upheld through United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) cannot be sustained without active Tribal stewardship and self-determination to enact cultural practices, including cultural fire.

Moving forward, wildfire resilience, forest management, climate adaptation, and community well-being will require establishing and nurturing meaningful relationships with Tribal governments and the communities they represent. Restoration and management of the land cannot and should not be accomplished without centering Indigenous people, knowledge, and stewardship, and playing a key role in NWFP updates and implementation. Working collaboratively with Tribal governments, representatives, and communities to update and implement the NWFP ensures that ITEK and cultural practices are adequately included. This will help facilitate meaningful progress toward healing, tribal sovereignty, and reconciliation.

Desired Conditions (DC)⁶⁰

- DC 1.** Proposed practices and management activities honor treaty reserved rights of all Tribes and the federal trust responsibilities owed to all Tribes and Indigenous Peoples regardless of status.
- DC 2.** Proposed practices and management activities recognize the role Tribes have had on the ecology of the Forest and integrate traditional ecological knowledge into future projects.
- DC 3.** Proposed practices and management activities are coordinated with other government agencies and Tribes to ensure requirements of all laws and regulations are met and terms of Indian Treaties are upheld.
- DC 4.** Forest units coordinate with Tribes to restore, promote, and enhance traditional cultural use species (including but not limited to species used for food, fiber, medicinal, regalia, artisanal, and ceremonial, purposes) that are accessible to tribal members.
- DC 5.** Forest units support Tribal interests in food sovereignty for all Tribal members.
- DC 6.** Forest units coordinate with Tribes to maintain and enhance access for tribal members to exercise treaty reserved rights.
- DC 7.** Consultation with Tribes, traditional cultural practitioners, consulting parties, adjacent landowners, and project designers aid the Forest Service in protecting and enhancing traditional cultural properties, cultural landscapes, sacred sites, and other culturally significant areas that provide tangible links to historically rooted beliefs, customs, and practices.
- DC 8.** Vegetative conditions provide a sustainable diversity of habitats necessary to provide plant and animal species that are of Tribal importance.

⁶⁰ A desired condition is a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates.

- DC 9.** Habitats support wildlife and other resources at huntable and harvestable population levels for the exercise of treaty reserved rights and non-treaty cultural, subsistence, and ceremonial uses.
- DC 10.** Vegetation types and vegetation conditions support continued use by Tribes for traditional, ceremonial, and medicinal purposes. Plants known to be used by Tribes that traditionally use the Forest are thriving.
- DC 11.** At the forest scale, culturally important botanical species are present and vigorous in quantities that are harvestable and accessible to Tribal members.
- DC 12.** Through co-stewardship, consultation and collaboration, forest units provide for the past, present and future of Tribal cultures.
- DC 13.** Forest units recognize Tribal needs and viewpoints and fosters a robust relationship with federally and non-federally recognized Tribes and related groups with which it consults. Forest Service personnel, including but not limited to line officers, departmental staff, archaeologists, historians, and Tribal liaisons, consult and communicate with Tribal leadership, Tribal historic preservation officers, traditional religious practitioners, traditional gatherers, Tribal members, and other Tribal organizations.
- DC 14.** Traditional ecological knowledge and Indigenous science is a valued part of the land management process when developing and implementing restoration projects and other Forest programs.
- DC 15.** Each forest unit provides a setting for the education of Tribal youth in culture, history, and land stewardship and for the exchange of information between Tribal elders and youth.
- DC 16.** Cultural burning is recognized as an inalienable Tribal right and responsibility that has existed for millennia and is rooted in Tribal law and sovereignty.

- DC 17.** The Forest supports and works with Tribes to center Indigenous knowledge, expertise, and practices in meaningful co-stewardship including but not limited to in planning, design, and implementation of prescribed fire and wildfire management and mitigation actions, cultural burning, and related practices.
- DC 18.** The Forest supports and aids Tribes in conducting cultural burning and related practices.
- DC 19.** The Forest supports and works with Tribes to center Indigenous knowledge, expertise, and practices in co-stewardship of lands in all land use allocations, but especially Late-Successional Reserves and late-successional and old-growth stands where Tribal interests are often greatest.
- DC 20.** The Forest supports and works with Tribes to center Indigenous knowledge, expertise, and practices in co-stewardship of homogenous plantations to restore fire regimes and fire-adapted landscapes.
- DC 21.** Ensure that consultation, collaboration, and cooperation between the Forest and Tribes, Tribal communities, Tribal organizations, and Indigenous traditional practitioners occurs in the management of culturally significant resources and species.
- DC 22.** Recognize and account for impacts of growing public use and recreation on Forest Service-managed lands, and its ecological impacts and impacts on treaty and cultural resources, access, and success in being able to exercise tribal rights and sustain tribal culture.
- DC 23.** Indigenous Traditional Ecological Knowledge, or Indigenous Science, are recognized and included as the best available science.
- DC 24.** Forest staff are operationally familiar with Forest Service Manual Chapter 1563 or its successor Chapter.
- DC 25.** Research and monitoring of forest health, wildlife populations, flora, and fauna, are inclusive of Tribal research and data, and the data is shared in a way that fosters co-management and cooperative agreements to fulfill mutual goals.

Objectives (OBJ)⁶¹

OBJ 1. On each forest unit, annually restore an acreage meaningful to [relevant Tribes][of forested stands in habitat types that could produce huckleberry in a manner that promotes huckleberry abundance over the long-term every XX years.

OBJ 2. Increase wet meadow-associated culturally important botanical species, such as camas, production on an acreage meaningful to [relevant Tribes] on an annual basis.

OBJ 3. Develop a long-term strategy with each Tribe with reserved and unreserved treaty rights on each forest unit to improve Tribal member access to important cultural sites on the unit within 5 years.

OBJ 4. Annually restore a mileage meaningful to [relevant Tribes] of riparian habitat suitable for beaver reintroduction or expansion, consistent with the Aquatic Conservation Strategy.

OBJ 5. Semiannually conduct employee training and education regarding Tribal cultural awareness, terminology, general trust responsibilities, and XX. Consider retaining Indigenous trainers for this instruction.

OBJ 6. Provide quarterly and onboarding training to unit Forest Service employees about local/regional Federal Tribal trust responsibilities and ways in which all Forest staff honor and implement these responsibilities. Consider retaining Indigenous trainers for this instruction.

⁶¹ An objective is a concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets.

Standards (STD)⁶²

- STD 1.** Commercial collection of special forest products shall not be permitted if the relevant Tribal governing body identifies it would result in limiting tribal member access to those treaty reserved resources. This determination shall be reviewed annually.
- STD 2.** Management activities in traditional cultural properties and/or districts shall be conducted in close consultation with the relevant Tribe or Tribes to fulfill treaty obligations, and the federal Indian trust responsibility. Project and activity authorizations shall be protected and honor Tribal reserved rights and sacred land. The uses of these areas must be compatible with desired conditions and compatibility shall be determined through government-to-government consultation.
- STD 3.** Management activities in traditional cultural properties and/or districts shall not pose adverse effects to these areas. Management activities shall consider Indigenous and western scientific research and ethnographic research as they relate to relevant Tribal cultural land-use identities when analyzing project effects.
- STD 4.** Forest staff shall coordinate with Tribes in identifying and managing traditional cultural properties, resources, and sacred sites where historic preservation laws alone may not adequately protect the resources or values. The need for confidentiality of Tribal information and knowledge shall not preclude implementation of protective measures.
- STD 5.** Land management activities shall avoid, minimize, or mitigate potential conflict with forest resources used in the exercise of reserved treaty rights, and for traditional and cultural practices.
- STD 6.** Tribal members shall have access to areas that provide them an opportunity to practice traditional, cultural, and religious lifeways, such as plant gathering, fishing, hunting, and ceremonial activities that are essential in maintaining their cultural identity and the continuity of their culture.

⁶² A standard is a mandatory constraint on project and activity decisionmaking, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

STD 7. To protect sacred sites, management activities shall avoid adversely affecting the physical integrity of these sites.

STD 8. Upon Tribal request, the Forest shall enter into at least one memoranda of agreement or other instrument between the Forest and each Tribe with reserved and unreserved treaty rights on each forest unit to guide consultation processes, reflect each Tribe's particular perspectives and interests, and protect sacred sites.

STD 9. Upon Tribal request, the Forest shall enter into at least one memoranda of agreement or other instrument with each Tribe with reserved and unreserved treaty rights on each forest unit pertaining to fire stewardship and wildfire management to support Tribal self-governance, cultural longevity, sustenance, and food sovereignty in addressing wildfire risk reduction, management, and recovery, and to enable beneficial fire practices ("Tribal cultural burn plan").

STD 10. The forest shall coordinate with federally recognized tribes to develop collaborative proposals and accomplish projects of mutual benefit across shared boundaries and use available federally authorized or advocated programs, including the Tribal Forest Protection Act of 2004, and the Collaborative Forest Landscape Restoration Program.

STD 11. Confidentiality of Tribal information and resources collected during consultation must be maintained as allowed by law, unless permission to share information is given.

STD 12. The Forest shall recognize, ensure, and accommodate tribal member access to the Forest for the exercise of treaty rights and to provide opportunities to practice traditional cultural and religious activities such as plant gathering and ceremonial activities that are essential to sustaining their way of life, cultural integrity, social cohesion, and economic well-being.

STD 13. Ongoing government-to-government and staff consultation for each federally recognized Tribe with historical or treaty interests in the Forest's NFS lands occurs through a cooperatively established tribal consultation protocol.

STD 14. The Forest shall ensure that Forest Service fire mitigation and management personnel are trained in and understand Tribal sovereignty and

cultural fire management practices.

STD 15. Support traditional native cultural practitioners in gathering culturally utilized plants for personal, community, or other non-commercial traditional use on lands administered by the Forest, consistent with applicable laws, regulations, and policy. Gatherers shall have access for traditional practices to lands managed by the agencies.

STD 16. The Forest shall prioritize local traditional native gathering and will address decisions and issues regarding identification of traditional native cultural gatherers or gathering, access, sustainability and other concerns associated with traditional native gathering in consultation with traditional practitioners, Tribes, and Tribal communities.

STD 17. The Forest shall work in collaboration with Tribes, Tribal communities, Tribal organizations, and traditional practitioners to identify, restore, and enhance traditionally important plant resources and wildlife.

STD 18. The Forest shall monitor effects of recreational access to traditionally important access points for Tribes and Tribal communities and shall work with Tribes and Tribal communities to identify areas of concern.

STD 19. The Forest shall coordinate with Tribal land use planning and management programs and to the maximum extent practicable shall incorporate the ecocultural restoration activities of approved Tribal land resource management plans and programs into the Forest's program of work.

STD 20. The Forest Service shall, to the full extent allowed under the law, maintain the confidentiality of culturally sensitive information provided by Tribes with the express expectation of confidentiality.

Guidelines (GDL)⁶³

- GDL 1.** To ensure tribal access to first foods and culturally important botanical species, collection of special forest products should not be authorized if it would result in destruction of resources and should minimize conflicts with Tribal uses and treaty rights and resources.
- GDL 2.** To ensure tribal access to first foods and culturally important botanical species, nontribal use collection of special forest products should not be permitted in areas of known conflict with tribal uses when identified and requested by a Tribal governing body for the duration of one harvest season. This determination shall be reviewed annually.
- GDL 3.** To honor Tribal privacy, requests for temporary closure orders for cultural and traditional purposes should be accommodated.
- GDL 4.** Management activities and uses should be planned and administered to prevent or minimize impacts to the physical and scenic integrity of places that the federally recognized Tribes regard as sacred sites, traditional cultural properties, or part of an important cultural landscape.
- GDL 5.** To support reserved treaty rights, management activities and permitted recreation uses should avoid areas of tribal importance during specific times of Tribal use as designated by the associated Tribe.
- GDL 6.** Design and implement management strategies to minimize adverse effects associated with recreation sites that affect reserved Tribal treaty rights.
- GDL 7.** To support Tribal sovereignty in fire stewardship, the Forest Service should work with Tribes to ensure that Tribal cultural burn plans may be carried out by Tribes under conditions of their choosing and in coordination with USFS as an ongoing activity rather than requiring renegotiation on a burn-by burn basis. The Forest Service should coordinate with Tribal burn plans and work with Tribes to develop processes for coordination,

⁶³ A guideline is a constraint on project and activity decision making that allows for departure from its terms, so long as the purpose of the guideline is met. Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

TRIBAL INCLUSION SUBCOMMITTEE

Ideas and Options

Working ideas for discussion January-February 2024

communication, managing risk, providing support for Tribal fire management activities and other details regarding planning and implementation (i.e., general locations, vegetation characteristics, seasonality, extent, notification procedures, etc.) based on Tribal protocols and agreements.

GDL 8. The Forest should appoint a Cultural Burning Liaison(s) to ensure treaty rights and trust responsibilities are upheld and to collaborate and help implement frequent cultural burns upon Tribal request.

GDL 9. Upon Tribal request, entities gathering data and providing dispatch information regarding fire ignitions should have the authority to enter into agreements with such Tribes to protect the privacy and confidentiality of ceremonial and other fire use.

GDL 10. Free use, without permit, of culturally important plants should be granted for traditional native cultural gathering. Local agreements are encouraged to support such gathering.

GDL 11. Upon Tribal request, work with Tribes to prioritize the ecocultural restoration of non-forest ecosystems and communities to provide for the propagation of treaty resources, First Foods and other cultural use species (e.g. basketry, fiber, medicinal, regalia, ceremonial species) and associated habitats.

Goals (GOAL)⁶⁴

GOAL 1. Meet regularly, as defined by each Tribe, with Tribes to better understand their needs and viewpoints. Promote the use of Forest-hosted Tribal forums and events, as well as attendance at Tribally-hosted meetings and events, as a method to ensure consistent contact, consultation, and collaboration.

GOAL 2. Consider employee exchange opportunities between the Forest Service and Tribes under Service First agreements or other mechanisms at

⁶⁴ Goals are broad statements of intent, other than desired conditions, usually related to process or interaction with the public. Goals are expressed in broad, general terms, but do not include completion dates.

federal expense. Provide Forest staff with detail opportunities to work with Tribes and provide Tribal staff opportunities to work with the agency, to increase reciprocal understanding and promote use of Tribal programs and legislation that is mutually beneficial.

GOAL 3. Develop a streamlined process to certify members of Native American tribes with cultural burning experience as burn bosses to recognize and account for their experience.

Management Approaches (MA)⁶⁵

MA 1. Coordinate with Tribes, Environmental Protection Agency, Department of Interior, and state agencies to evaluate current federal regulations and guidance around the treatment of smoke from wildland fire in air quality management programs with the intent of ensuring the programs can accommodate increased use of beneficial and cultural fire, while ensuring protection of public health, in a manner consistent with the Clean Air Act.

MA 2. Establish effective relationships and partnerships with Tribes, tribal communities and native traditional cultural practitioners that have rights and interests on the Forest and for whom lands within the administrative boundaries of the unit have traditional, cultural and/or spiritual importance.

MA 3. Include Tribes in the development of Forest annual work plans to encourage the inclusion of Tribes at the beginning of project development and prioritization of annual programs of work.

⁶⁵ Management approaches describe the principal strategies and program priorities the Responsible Official intends to employ to carry out projects and activities developed under the plan. The management approaches can convey a sense of priority and focus among objectives and the likely management emphasis. Management approaches should relate to desired conditions and may indicate the future course or direction of change, recognizing budget trends, program demands and accomplishments. Management approaches may discuss potential processes such as analysis, assessment, inventory, project planning, or monitoring.

Suitability of Lands (SUIT)⁶⁶

SUIT 1. Late-Successional Reserves and Adaptive Management Areas are suitable for co-stewardship by Tribes, upon Tribal request to undertake co-stewardship activities.

Monitoring (MONT)

MONT 1. Conduct ongoing monitoring of visitor use and develop responses when needed to safeguard our rights and the resources and places upon which those rights depend, and generally, to ensure the ecological compatibility of recreation with Tribal treaty rights and resources.

MONT 2. At Tribal request and in consultation and cooperation with Tribes, include culturally significant species in monitoring protocols related to management activities, where appropriate.

MONT 3. At Tribal request and in consultation and cooperation with Tribes, conduct regular monitoring of specified cultural resources and First Foods.

MONT 4. Conduct monitoring of implementation of the special forest products program on the Forest to ensure that Tribally-important resources are harvested in a manner and rate consistent with Tribal sustainability and cultural sovereignty principles.

⁶⁶ Suitability of lands. Specific lands within a plan area will be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also identify lands within the plan area as not suitable for uses that are not compatible with desired conditions for those lands. The suitability of lands

need not be identified for every use or activity. Suitability identifications may be made after consideration of historic uses and of issues that have arisen in the planning process. Every plan must identify those lands that are not suitable for timber production.

ADDITIONAL IDEAS STILL UNDER DISCUSSION:

- Reference to treaties (treaties apply to specific Tribes, not all Tribes)
- References to JSO 3403
- Include listing of Indigenous entities in region and on each forest
- Think about procedural and substantive triggers and how to include and where
- Funding and staffing and training recommendations
- Include reference to supplemental addendum process/content
- Discuss/consider establishing land use allocations devoted to tribal co-stewardship/management
- Discuss aquatic ecosystems, fisheries, climate change and Tribes issue area
- Coordinate with or incorporate plan components related to Tribal workforce, wildlife and climate adaptation ideas/options
- Discuss establishing land use allocations devoted to Tribal co-management; Tribes identify area's they'd like to co-manage, USFS complete a framework for assessing and implementing area requests from Tribes

TRIBAL WILDLIFE

Ideas/Options:

- Amend section B, rationale, to acknowledge Treaty rights and trust obligations related to wildlife management and affirm recognition of Tribal sovereignty over wildlife resources in all USFS land covered under the NWFP. The trust obligation to protect wildlife species and cooperate with federally recognized tribes in their management is of paramount importance. Co-management of wildlife species is a reserved right under certain treaties between the United States government and treaty signatory tribes. USFS should make all efforts to coordinate with tribes. No action undertaken with any tribe that diminishes tribal treaty reserved rights. Consider referencing or including language from the Montreal Global Biodiversity Framework language on contribution and rights of Indigenous peoples, e.g. "USFS acknowledges the important roles and contributions of Tribes, Indigenous peoples and communities as custodians of wildlife and biodiversity and as partners in wildlife and biodiversity stewardship, conservation and sustainable use. NWFP implementation must ensure that the rights, knowledge, including traditional knowledge/Indigenous Science associated with wildlife and biodiversity, habitat stewardship, management principles, values and practices are engaged and incorporated into management practices with free, prior and informed consent, including through full and effective participation in all aspects of planning, monitoring and decision-making, in accordance with treaty rights and other Tribal rights. and the United Nations Declaration on the Rights of Indigenous Peoples."
- Develop Objectives and Standards and Guidelines to work with Tribal wildlife and natural resources departments to enter into Government-to-Government agreements to design habitat enhancement treatments for culturally significant species through processes that respectfully engage Tribal knowledge and values while protecting Tribal data sovereignty and culturally sensitive information.

TRIBAL INCLUSION SUBCOMMITTEE

Ideas and Options

Working ideas for discussion January-February 2024

- Develop a Standard around meaningful Tribal engagement and consultation throughout process of developing and implementing barred owl control strategies.
- Develop Standards and Guidelines around engaging Indigenous knowledge holders/cultural practitioners/representatives and Indigenous knowledge/science to guide forest treatment prescriptions to enhance wildlife habitat for cultural use species and biodiversity. This entails meaningful engagement with Tribal wildlife depts. as full equitable partners.
- Monitoring and adaptive management (Section E-12): add language around supporting Tribal wildlife departments to conduct monitoring on culturally significant wildlife species and habitats, develop data sharing protocols that respect Tribal data sovereignty and confidentiality protocols, co-design triggers/thresholds and adaptation/mgmt. pathways that incorporate TEK/IS in management/mitigation response.
- Add Objective to support and coordinate with Tribal NBSAPS- Biodiversity Strategies and Action Plans.
- Implementation recommendation: Affirm support for Tribal wildlife programs and representatives as true equitable partners in wildlife monitoring and management, develop implementation recommendations around funding, staffing, infrastructure, housing, capacity building, education and training etc., align with Tribal workforce recommendations.
- Recreation impacts on wildlife of importance to Tribes
- Species of conservation concern - including working with Tribes to identify SCCs and species of “multiple use,” persistence in Plan area.
- FS should support control of invasive species and reintroduction of native species and their habitat, whether introduced by Tribes or feds, and these efforts should be in collaboration with Tribal programs.
- Add *Objective* to collaborate and coordinate with Tribal wildlife or natural resources programs (through G2G consultation, staff-staff collaborations and programmatic agreements e.g. MOUS/MSAs) to understand and establish cultural species of importance for monitoring and habitat management in relation to each Tribe and Tribal territory and dependent upon data-sharing protocols that protect Tribal data sovereignty and respect Tribal confidentiality protocols and Tribal willingness to share information.
- Add an *Objective* (or other appropriate plan component) to prioritize department government-to-government and staff-to-staff (between Tribal wildlife and natural resources staff and USFS staff) consultation and coordination in planning, monitoring and management activities related to Federal and State Threatened and Endangered Species and Species of Conservation Concern issues.
- Consider developing a Regional Tribal Operations Working Group for wildlife and biodiversity. Not a FACA. A regional interagency working group with representatives from tribal communities (and USFS staff) from CA, OR, ID, WA.

TRIBAL CLIMATE ADAPTATION

Why/Rational/Intent: Tribal communities are on the front lines of climate change, both in experiencing significant impacts of climate stressors and as leaders in climate change monitoring, planning and adaptation. Tribes should therefore have a significant role in planning, monitoring and decision-making regarding climate change adaptation processes for forests across the planning area. Amendments to address climate change must incorporate

TRIBAL INCLUSION SUBCOMMITTEE

Ideas and Options

Working ideas for discussion January-February 2024

Indigenous science and stewardship practices and be responsive to the needs and values of Indigenous communities throughout the NWFP planning area.

Connection to NWFP: None in existing NWFP, potential places to add language:

- Section B, rationale Re Climate Change
- Section C S&Gs Re Climate Change
- Section E Re Monitoring and Adaptive Management
- Include specific plan component draft language (next step) into Tribal inclusion recommendations

Ideas/Options:

- Add a Goal (or other plan component) for the Forest Service to work in partnership with Tribes to establish a process for coordinating with Tribes' existing vulnerability assessments/adaptation strategies, to support Tribes to update plans (every 5 years?), and to support and work with Tribes to develop new plans and adaptive management strategies where they haven't yet been developed.
- Add a Standard requiring consideration of Tribal climate adaptation plans during USFS project planning process.
- Add a Desired Condition regarding support for Tribal climate adaptation planning, monitoring, and projects to build social and ecological resilience in Tribal communities.
- Add a Goal for USFS to support Tribal Natural Resources and Wildlife departments to develop co-stewardship agreements covering joint monitoring and management projects to enhance resilience of cultural focal species and habitats to climate stressors and FRV scenarios and to co-develop vulnerability assessments and adaptive management plans to and build social and ecological resilience to climate change related stressors at multiple scales in Tribal territories across the planning area.
- Plan components covering the development of co-stewardship agreements to support Tribal-led restoration of ecosystem function in terrestrial and aquatic habitats (including dam removal, floodplain reconnection and prescribed burning) to buffer ecosystems against climate stressors and enhance their ability to respond to disturbances at multiple scales.
- Add Monitoring recommendations (Section E, E-12) around including TEK/IS, supporting Tribal monitoring partnerships (with data sovereignty provisions) and developing Tribal-led and collaborative monitoring protocols and identifying triggers and corresponding management actions and adaptation pathways.

Alternatives:

Priority: High