NORTHWEST FOREST PLAN AMENDMENT

Federal Advisory Committee Recommendations to the U.S. Forest Service

DRAFT, FOR DISCUSSION PURPOSES AT JUNE 2024 FEDERAL ADVISORY COMMITTEE MEETING

LETTER FROM THE CO-CHAIRS

[To include in final report]

INTRODUCTION TO RECOMMENDATIONS

[To include in final report]

Objective: Provide recommendations to the U.S. Forest Service for amending the Northwest Forest Plan to:

- Improve fire resistance and resilience.
- Strengthen the capacity of ecosystems to adapt to climate change.
- Improve conservation and recruitment of old growth forest conditions, ensuring adequate habitat for species that depend on mature and old growth ecosystems and supporting regional biodiversity.
- Incorporate Indigenous Knowledge into planning, project design, and implementation to achieve forest management goals and meet the agency's trust responsibilities.
- Provide a predictable supply of timber and non-timber products and other economic opportunities to support the long-term sustainability of communities near National Forest System lands and economically connected to forest resources.

Desired Conditions (DC): 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.

Objectives (OBJ): 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): A standard is a mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.

Guidelines (GDL): 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.

Goals (GOAL): 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.

Management Approaches (MA): 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): 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.

Monitoring (MONT): Provides direction for monitoring programs.

1. Tribal Inclusion and Honoring Tribal, Treaty, Reserved, Retained, and Other Similar Rights and Trust Responsibilities

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, tending, tracking, cultivating, and paying attention to aquatic species and wildlife habits and interactions, often through sacred ceremonies) have contributed to the establishment and maintenance of mature and old growth forest habitats, supported fire-adapted ecosystems, and mitigated impacts connected to changing climates and a history of environmental degradation across the PNW.

The Northwest Forest Plan (NWFP) area includes over 80 Tribal nations, and many more tribal communities and Indigenous-led organizations throughout the 24.5-million acres of National Forest and other designated lands. Although there is overlap and similarities, each Tribe has different Treaty, reserved, retained, and other similar rights (“Treaty and other Tribal Rights”), as well as trust responsibilities owed by the federal government. In

addition, each Tribe has their own historical and culturally significant needs, perspectives, and unique approaches to ecosystem stewardship as well as adapting to extreme changes in climate and on the land.

The original development and implementation of the NWFP in 1994 lacked meaningful consultation, engagement, or partnership with Tribes and Tribal communities. It also neglected Indigenous Knowledge (IK), tribal values, and interest in forests and associated cultural practices that resulted in forest management planning that failed to adequately acknowledge 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. This is evident by biodiversity loss, environmental degradation, impacts to cultural resources and an increase in fire intensity and frequency and recent catastrophic wildfires that have caused substantial damage not only to USFS lands, but also to Tribal communities and ecocultural resources, including those protected by trust responsibilities, Treaty, and other Tribal rights. In addition, not including Tribal communities has negatively impacted the stewardship, environmental health and climate resilience of the National Forest lands covered by the NWFP. These impacts to Tribes and National Forest lands result in costs to the greater public in a variety of ways.

Over a century of fire suppression, coupled with regulatory restrictions, removal of Indigenous practitioners and practices (including cultural fire), as well as assimilationist policies from the boarding school era, have led to today's increased risks from catastrophic wildfire and has also created structural barriers and mechanisms preventing Indigenous peoples from enacting sustainable stewardship. The NWFP amendment must signal a shift in Tribal relations across NWFP forests and include an apology for the exclusion of Tribal communities from the original formulation of the NWFP and call for healing and reparations for over a century of settler colonialism, land dispossession, criminalization and marginalization of Indigenous cultural stewardship practices, and mismanagement of Tribal lands.

Cultural resources that are part of many Tribal nations' rights and further recognized as protected under the 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. Similarly, 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 recognized under the law as part of reserved treaty rights between the United States government and signatory Tribes of the Pacific Northwest. Additionally, there are other tribes in the NWFP area, which hold reserved, retained, and other similar rights, and for which an array of Executive Orders and other forest-related policies apply and pertain to tribal interest and inclusion in forest administration and management, beyond Consultation requirements.

Wildfire resilience, forest management, climate adaptation, biodiversity, and community well-being will require establishing and nurturing meaningful relationships with Tribal governments and the communities they represent. Forest restoration and management cannot and should not be accomplished without centering Indigenous people, knowledge, and stewardship, or without Tribes and Tribal people 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 IK and cultural practices are adequately included and protected from misuse, inappropriate disclosure, and appropriation. This will help facilitate meaningful progress toward healing the land, tribal sovereignty, and reconciliation.

What's currently in the Northwest Forest Plan: The Northwest Forest Plan currently does not contain provisions relevant to Tribal inclusion, Indigenous Knowledge, and honoring Trust responsibilities or Treaty and other Tribal rights.

These recommendations support:

- ✓ Incorporation of Indigenous Knowledge into planning, project design, implementation, and meeting the agency's trust responsibilities, while protecting confidentiality and preventing appropriation
- ✓ Improved fire resistance and resilience
- ✓ Capacity of ecosystems to adapt to climate change
- ✓ Conservation and recruitment of old growth forest conditions and habitat for species that depend on old growth ecosystems and regional biodiversity
- ✓ Communities that rely on National Forest System lands

RECOMMENDATIONS	
1-1	**DC:** Proposed practices and management activities uphold and protect treaty, reserved, and other similar rights of all Tribes and fulfill, in part, the federal trust responsibilities owed to all federally recognized Tribes and to Indigenous Peoples regardless of treaty status.
1-2	**DC:** The Forest recognizes the role Tribal communities have had and continue to have an interest in shaping and stewarding the ecology of the Forest. Proposed practices and management activities support, sustain, and incorporate Indigenous knowledge into future forest administration, planning, and operationalizing co-stewardship and collaborative projects in ways that are reciprocal in nature, with the recognition that such knowledge is offered at the sole discretion of a Tribe as a sovereign government.
1-3	**DC:** 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.
1-4	**DC:** The forests coordinate, consult, and collaborate with Tribes, and work with Tribes to establish a co-leadership role in the context of a co-stewardship agreement to restore, promote, and enhance traditional cultural use species (including but not limited to culturally significant species used for food, fuel, fiber, construction (e.g. for canoes or traditional lodges) of cultural items, medicine, regalia, artisanal, spiritual, and ceremonial purposes) and ensure they are accessible to tribal members.
1-5	**STD:** Forest units shall coordinate with Tribes to ensure privacy and confidentiality is maintained for sensitive topics such as cultural practices, locations, and traditional cultural use species.
1-6	**DC:** The Forests work with Tribes to determine the Tribal organizational capacity needed to engage in collaboration, coordination, and consultation with the Forest Service, and work with Tribes to identify sources of funding for Tribal organizational capacity development.

1-7	**DC:** The Forest collaborates with Tribes to support youth engagement programs to cultivate the next generation of professionals and address staffing and capacity issues related to better including Indigenous perspectives in land stewardship.
1-8	**DC:** Forest units support Tribal interests in food sovereignty for all Tribes and Tribal people.
1-9	**DC:** The Forest coordinates with Tribes to ensure Forest access by tribal members for the exercise of Treaty and other Tribal Rights regarding cultural and traditional uses.
1-10	**DC:** Vegetation types and conditions, as well as enabling ecological and cultural processes including fire use and stewardship practices, provide a sustainable, harvestable, and accessible diversity of habitats necessary to provide plant, fungi, and animal species that are of Tribal importance for traditional, ceremonial, and medicinal purposes. Plants, fungi, and animals known to be used and stewarded by Tribes for traditional use are thriving in the Forest.
1-11	**DC:** Through monitoring, ensure that culturally significant plants used by Tribes who traditionally use the Forest are thriving and properly protected from overharvest from both commercial and non-commercial uses.
1-12	**DC:** The Forest recognizes the treaty, reserved, and other similar rights of and trust responsibilities to Tribes within the Forest and the difficult history of claiming and enforcing these rights that have led to intergenerational trauma, painful memories and events for Tribes and Tribal members that are still felt within these communities. The Forest takes seriously its role and responsibility in any healing processes that emerge from collaboration with willing Tribes.
1-13	**DC:** The Forest recognizes Tribal needs and viewpoints and fosters a robust and committed relationship to working alongside federally and non-federally recognized Tribes, Indigenous-led organizations, and related groups with which it consults, collaborates, and coordinates. Forest Service personnel, including but not limited to line officers, departmental staff, archaeologists, historians, and Tribal liaisons, make it a practice and norm to consult and communicate early, frequently, and openly with Tribal leadership, Tribal historic preservation officers, traditional religious practitioners, traditional gatherers, Tribal members, and other Tribal organizations.
1-14	**DC:** Forest Service personnel regularly receive training in the cultural norms of area Tribes as well as treaty rights, federal Trust responsibilities and other similar Tribal rights relevant to the forest unit. Forest staff are operationally familiar with and have received training on the Forest Service Manual Chapter 1563 (or any successor Chapter) that sets out the USFS Final Directives on American Indian and Alaska Native Relations.
1-15	**DC:** The Forest supports mentorship and leadership programs designed in collaboration with interested Tribes to recruit and engage workforce professionals trained as natural resource stewards grounded in culture and tradition to protect the Forest through innovative programs, inclusive leadership, and advancing technology supported by relevant Tribes.
1-16	**DC:** The Forest provides a setting for the education of Tribal youth in culture, history, and land stewardship through culturally appropriate and place-based processes and for

	the exchange of information between Tribal elders and youth and between Tribal youth and Western scientists, if so desired by the Tribal community.
1-17	**DC:** Cultural burning is recognized as an inherent Tribal right and responsibility that has existed for millennia and is rooted in Tribal laws and Indigenous knowledge, practices, and belief systems. The Forest accommodates cultural burning and coordinates, consults, and collaborates with Tribes in order to create conditions conducive for this Tribal sovereign practice.
1-18	**DC:** The Forest supports and works with Tribes and Indigenous people to acknowledge and respectfully share Indigenous knowledge, expertise, and practices in meaningful co-stewardship including, but not limited to, planning, design, and implementation of prescribed fire and proactive wildfire management and mitigation actions and related practices.
1-19	**DC:** The Forest supports and works with Tribes to center Indigenous knowledge, expertise, and cultural stewardship practices in co-stewardship and adaptive management of lands in all land use allocations, including Late-Successional Reserves and late-successional and old growth stands. This includes supporting, enabling, and accommodating Indigenous fire use for cultural and ecological purposes.
1-20	**DC:** The Forest recognizes and manages, mitigates, or regulates the impacts of growing public use, non-tribal commercial practices, and recreation on lands administered by the Forest Service, including impacts on ecology, cultural resources, and Tribal member access for the exercise of Treaty and other Tribal Rights and traditional, cultural, and religious practices to sustain Tribal cultures.
1-21	**DC:** Indigenous Knowledge and science are recognized and used in ways that honor Tribal data and knowledge sovereignty and which include free, prior, and informed consent by Tribes and Tribal people, to guide Forest planning and implementation as a co-equal source of the best available science alongside any other reputable source.
1-22	**DC:** Forest staff are operationally familiar with and have received training on the Forest Service Manual Chapter 1563 (or any successor Chapter) that sets out the USFS Final Directives on American Indian and Alaska Native Relations.
1-23	**DC:** Research and monitoring of forest health, wildlife populations, fungi, flora, and fauna are inclusive and respectful of Tribal Indigenous knowledge research and data, and Indigenous data is shared in a way that respects Tribal sovereignty. The data shared according to Tribally approved protocols will assist in fostering co-stewardship, collaborative arrangements, and cooperative agreements to fulfill related mutual goals.
1-24	**DC:** Increased partnerships, collaborations, and agreements with Tribes enhance the capacity for forest stewardship to manage forest structure and composition according to desired conditions that support culturally significant species and habitats and are developed in coordination with and with support from willing Tribal participants on a sovereign-to-sovereign basis.
1-25	**DC:** Co-stewardship and Tribal management opportunities support ecological and cultural benefits for Tribal communities and offer the institutional and technical support needed to allow Tribes to participate in consultation and cooperative agreements that are best suited to support cultural uses and provide economic benefits (e.g. jobs, contracts, grant revenue, infrastructure) to Tribal communities for

	long-term sustainability. The Forest Service works with Tribes to identify sources of financial support for these efforts.
1-26	**DC:** The Forest Service operates under the terms of a mutually agreed upon privacy protocol and seeks free, prior, and informed consent of relevant Tribes. Treaty and other Tribal rights are protected through full, effective, early, and sustained participation in all aspects of planning, monitoring, and decision-making.
1-27	**DC:** The Forest Service supports and coordinates federal management actions consistent with Tribal forest management, biodiversity, and climate adaptation strategies, actions, and management plans, including Integrated Resource Management Plans, consistent with treaty rights, reserved rights, and other Tribal rights. The Forest Services recognizes the rights of Tribes to engage in planning on multi-jurisdictional landscapes. Formal consultation is conducted regarding actions taken within areas included in Tribal management plans.
1-28	**DC:** The Forest actively engages in collaboration with Tribes as a co-steward with shared interests in the management of Forest resources, including treaty-reserved resources and other culturally significant resources.
1-29	**DC:** The Forest works with Tribes as co-equal sovereigns to develop and implement agreements for the co-stewardship of federal lands and waters. Such agreements are created and implemented consistent with government-to-government obligations, Tribal sovereignty, and data sovereignty policies and practices.
1-30	**DC:** Improved beaver habitat conditions promote beaver presence in watersheds where beaver activities benefit ground water, surface water, and aquatic habitat complexity, and where beaver activities support conservation and recovery of imperiled aquatic species, and in populations sufficient to fulfill their ecological function.
1-31	**DC:** Indigenous Youth in the NWFP area develop robust understandings of key concepts for participation in community resilience and land stewardship, including receiving curricular and experiential learning about Indigenous and colonial histories and conditions of the land, Tribal sovereignty, fire ecology, and climate resilience. Annual letters will be sent to Tribes within the NWFP notifying them about opportunities such as the Indian Youth Service Corps program and other opportunities.
1-32	**DC:** To implement the Tribal Relations Program on each Forest and to ensure that individual Tribal needs are respected and understood, each Forest employs staff with the sole responsibility of stewarding relationships between each Tribe and the Forest. The roles and responsibilities of the Tribal Relations Program Manager include Tribal outreach, staff-to-staff coordination, and collaboration, and are separate from Forest Service staff responsibilities associated with heritage and/or archaeology program tasks.
1-33	**DC:** Indigenous knowledge is meaningfully incorporated into Biological Assessments and other regulatory and compliance processes related to the Endangered Species Act to the greatest degree possible (including related to Limited Operating Periods) through processes led by Tribes or in collaboration with Tribes, and only in ways that honor Tribal data and knowledge sovereignty, and which include free, prior, and informed consent by Tribes and Tribal people.

1-34	**DC:** Recognize the central role of Indigenous Knowledge in Historic Preservation issues, including determinations of eligibility, nominations, archaeological and TEK survey processes and standards, in Section 106 consultation, and in Traditional Cultural Property or Cultural Management Area designations.
1-35	**OBJ:** To produce huckleberry in a manner that promotes huckleberry abundance over the long-term, the Forest works with interested and relevant Tribes to determine annual huckleberry restoration actions at a scale meaningful to the Tribes, and completes those restoration actions through consultation with and/or through co-stewardship agreements if possible.
1-36	**OBJ:** Collaborate with Tribes to jointly develop and implement programs and projects that support the restoration of priority culturally relevant species. Within 5 years, each Forest Unit should develop at least 3 such projects in partnerships with Tribes.
1-37	**OBJ:** Through engagement and consultation with interested Tribes, develop techniques and approaches to implement forest restoration, enhancements, fuels reduction, or maintenance actions in at least three areas of Tribal importance, as jointly determined by Tribal nations and the Forest Service, on a yearly basis following plan approval.
1-38	**OBJ:** Annually increase or improve dry, serpentine, and wet meadow-associated culturally significant species, such as camas meadows or other species identified through consultation with interested Tribes by 2,000 acres or other metric meaningful to the Tribe.
1-39	**OBJ:** Annually restore a mileage meaningful to [relevant Tribes] of riparian habitat suitable for beaver reintroduction or expansion, consistent with the Aquatic Conservation Strategy.
1-40	**OBJ:** Semiannually, and with Tribal input and leadership as appropriate, conduct employee training and education regarding Tribal cultural awareness; terminology; general trust responsibilities and Tribal rights; relevant treaty rights and history, settler colonialism, decolonization and Indigenous ecocultural restoration; principles of free, prior, and informed consent; data sovereignty; Indigenous values that underpin Indigenous Knowledge such as reciprocity, cultural humility, and the Seventh Generation Principle; and the Principles and Best Practices for Working with Indigenous Knowledge. Indigenous trainers and/or cultural monitors from willing Tribes should be engaged to co-lead this instruction. Consider hosting an annual knowledge sharing event where practitioners from the Forest Service and from area Tribes can teach, train, share, and learn.
1-41	**OBJ:** Provide regular and onboarding training to unit Forest Service employees about local/regional Federal Tribal trust responsibilities and treaty rights, the unique history of each local/regional Tribe, as well as ways in which all Forest staff are bound to honor and implement these responsibilities. Consider retaining and compensating Indigenous trainers and/or cultural monitors from willing Tribes to co-lead this instruction.
1-42	**OBJ:** Within two years and at Tribal request, work with relevant Tribes to co-develop and implement with interested Tribes programmatic agreements as directed by Tribes (e.g., memoranda of agreement, memoranda of understanding, master stewardship agreements, stewardship agreements, TFPA agreements, bilateral agreements, interagency agreements, NHPA section 106/110 responsibilities) between the Forest

	and Tribes to establish consultation protocols and cooperative/collaborative management processes.
1-43	**OBJ:** Within two years, work with Tribes to co-develop with relevant and interested Tribes co-stewardship agreements and opportunities that address Tribally-identified workforce, cultural, ecological, economic, STEM education, and business opportunities of highest importance to Tribes.
1-44	**OBJ:** Within two years, enter into one or more Government-to-government agreement(s) with Tribes per Forest to co-design, plan, and implement habitat enhancement projects and programs for culturally significant species and practices through processes that respectfully engage Indigenous knowledge and values while both promoting Tribal workforce capacity and protecting Tribal data sovereignty and culturally sensitive information about culturally significant species, places, and practices. Develop an implementation strategy for NHPA section 304 on confidentiality (54 USC § 307103) that responds to Tribal needs to protect the confidentiality of religious practices.
1-45	**OBJ:** Within two years, establish a Tribal wildlife and biodiversity regional interagency working group (Regional Tribal Operations Working Group) with Tribal and Forest Service representatives from Regions 5 and 6 to explore co-stewardship of wildlife and biodiversity that is inclusive of Indigenous knowledge and cultural practices, and western science, and that honors Tribal data and knowledge sovereignty and includes free, prior, and informed consent by Tribes and Tribal people.
1-46	**OBJ:** Within 5 years, work with Tribes to co-develop a long-term strategy to improve Tribal access to important cultural places on the Forest, consistent with applicable federal law, regulations, executive orders, and agency policies, Tribal laws, constitutions, and treaty, reserved, retained and other Tribal rights, including any privacy and consultation protocols.
1-47	**OBJ:** With relevant and interested Tribes co-develop actions in priority watersheds that will improve soil and watershed conditions on 3,000 to 4,000 acres every 3 years, including through system and non-system road decommissioning and increased use of tribally-led cultural burning.
1-48	**OBJ:** By the end of year 8 following amendment approval, Forests in the NWFP Area have designed and implemented a Tribal Relations Program on each Forest to build partnerships, uphold trust and legal responsibilities, and help coordinate with federally recognized and unrecognized tribes that have ancestral lands on the Forest.
1-49	**STD:** 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 treaty, reserved, or retained resources. This determination shall be reviewed annually in coordination with relevant and interested Tribes to ensure treaty resources are adequately conserved and stewarded.
1-50	**STD:** Management activities that have potential to impact historic districts, buildings, sites, structures, and objects with traditional cultural significance shall be conducted in close consultation and partnership with the relevant Tribe or Tribes to fulfill Treaty and other Tribal Rights and obligations or otherwise protect the important relationship between a relevant Tribe and the Forest and legally mandated federal Indian trust

	responsibilities. Project and activity authorizations shall protect and honor Tribal reserved rights and sacred land and be developed in tandem with relevant Tribes as sovereign partners with co-equal interest. The uses of these areas must be compatible with Desired Conditions, and compatibility shall be determined through government-to-government consultation and implemented in accordance with a consultation protocol developed with the relevant Tribes to ensure consultation is meaningful.
1-51	**STD:** Management activities shall consider Indigenous and western scientific research and ethnographic research related to relevant Tribal cultural land-use activities and interests when analyzing project effects. Ensure that no adverse effects are caused to any Treaty and other Tribal Rights, sacred places, practices, or elements of the landscape identified as culturally important to relevant Tribes.
1-52	**STD:** Forest staff shall coordinate and collaborate with Tribes in developing appropriate staffing solutions for identifying and managing areas of traditional cultural significance, resources, and sacred places where historic preservation laws alone may not adequately protect the resources or important cultural values. Confidentiality of Tribal information and knowledge shall be maintained as allowed by law and shall not preclude implementation of further protective measures.
1-53	**STD:** Land management activities shall be developed in collaboration and consultation with relevant Tribes to avoid, minimize, or mitigate potential conflict with forest resources used for traditional and cultural practices sacred or important to the relevant Tribes, or used in the exercise of treaty, reserved, and other Tribal rights. Tribal cultural-use species shall be prioritized for preservation and ongoing forest health management in alignment with Tribal values.
1-54	**STD:** Tribal members and people shall have reasonable access as determined by the relevant and interested Tribe to areas that provide them an opportunity to practice traditional, cultural, and religious lifeways, such as plant gathering, fishing, hunting, stewardship and ceremonial activities that are essential in maintaining their cultural identity and the continuity of their culture. Relevant Tribes may seek temporary closures of Forest Service lands in accordance with the Tribal Cultural and Heritage Cooperation Authority. Formal consultation and notification to Tribes shall be conducted for any activities in sacred site areas.
1-55	**STD:** Develop protocols through meaningful consultation with relevant Tribes to protect sacred places and Traditional Cultural Properties and identify how management activities will avoid adversely affecting the integrity of these places. Formal consultation and notification to Tribes shall be conducted for any activities in sacred site areas or within Traditional Cultural Properties.
1-56	**STD:** Develop protocols through meaningful consultation with relevant Tribes to ensure that all land management activities of the Forest avoid impacts that would otherwise deprive or hinder Tribal members of their ability to access and exercise their treaty-reserved rights, reserved rights, and other Tribal rights and associated resources or would otherwise impair their traditional and cultural practices, as identified by the Tribe.
1-57	**STD:** Upon Tribal request, the Forest shall enter into at least one memorandum of agreement or other instrument between the Forest and each Tribe with reserved

	and/or unreserved treaty rights on each forest unit to: guide the meaningful consultation processes identified with relevant Tribes; include Tribes as partners in management and decision making processes; identify and make known each Tribe's particular perspectives, priorities, and interests; allow for restoration of cultural resources and Traditional Ecological Knowledge (TEK) assets to protect sacred sites and Traditional Cultural Properties (Places); and provide for the protection of cultural practices and other important resources. Data privacy and sovereignty protocols shall be observed.
1-58	**STD:** Upon Tribal request, the Forest shall enter into at least one memorandum of agreement or other formal instrument with each Tribe with reserved and/or unreserved treaty rights on each forest unit pertaining to fire stewardship, cultural heritage monitoring, wildfire management, wildfire risk reduction and management, and post-fire recovery.
1-59	**STD:** The Forest shall consult and coordinate with willing and interested federally recognized Tribes to co-develop and partner in co-stewardship proposals and accomplish projects of mutual benefit across shared boundaries and use available federally authorized or advocated programs, including but not limited to the Tribal Forest Protection Act of 2004, Good Neighbor Authority, Tribal Forest Protection Act (TFPA), Tribal Forest Management Demonstration Projects, Indian Self-Determination and Education Assistance Act (ISDEAA), Tribal Forest Management Demonstration Projects, the Multiple-Use Sustained-Yield Act (MUSYA), Healthy Forests Restoration Act/Stewardship Contracting Authority, Challenge Cost-Share Agreements, Cooperative Funds Act, the Cooperative Funds and Deposits Act, the Indian Youth Service Corps Program, and the Collaborative Forest Landscape Restoration Program. The Forest Service shall help Tribes identify and address barriers to use of these authorities.
1-60	**STD:** Confidentiality of Tribal information and resources collected during consultation or as part of co-stewardship, collaboration, and co-management agreements shall follow all data sovereignty protocols, as guided by best practices, and be maintained as allowed by law, unless express permission to share information is given by the relevant Tribe. This shall include the non-disclosure of highly confidential tribal information regarding ceremonial activities and features, except where authorization is specifically given by a tribally-designated representative. This may involve a higher standard of confidentiality than what is typically disclosed to a suitably-qualified USFS Archaeologist.
1-61	**STD:** At Tribal request, ongoing government-to-government and staff consultation for each federally recognized Tribe and any Tribe with historical or treaty interests in the Forest's NFS lands occurs by way of a Tribally established consultation protocol, memorialized by a joint agreement of the Forest and the relevant Tribes. The USFS shall not rely on internal procedures alone to determine the sufficiency of consultation efforts.
1-62	**STD:** Support Tribal cultural practitioners in gathering and using traditional management techniques such as burning, pruning, coppicing, for culturally significant plants for personal, communal, or other non-commercial traditional use on lands administered by the Forest, consistent with applicable laws, regulations, policy, and

	Treaty and other Tribal rights. Gatherers shall have access to lands managed by the Forest Service for traditional practices and may request a temporary closure for such practices in accordance with the Tribal Cultural and Heritage Cooperation Authority.
1-63	**STD:** The Forest shall prioritize local traditional native gathering and will address issues regarding gathering, access, sustainability and other concerns associated with traditional native gathering in consultation and partnership with relevant Tribal traditional practitioners, Tribes, and Tribal communities. Identification of traditional native cultural gatherers shall be left to the discretion of Tribal traditional practitioners and Tribal communities.
1-64	**STD:** The Forest shall work in collaboration and partnership with relevant Tribes, Tribal communities, Tribal organizations, and their designated traditional cultural practitioners to steward, identify, restore, and enhance culturally important plant resources and wildlife.
1-65	**STD:** The Forest works collaboratively with relevant Tribes, Tribal communities, and Tribal organizations to monitor effects of recreational access to traditionally important access points for Tribes and Tribal communities, identify funding and support capacity for Tribal areas of concern, and create and implement solutions.
1-66	**STD:** The Forest shall coordinate and collaborate with Tribal land use planning and natural resource management programs and to the maximum extent shall support and accommodate the ecocultural restoration activities of approved Tribal land resource and integrated resource management plans and programs, including through the Forest's program of work, planning, and implementation processes.
1-67	**STD:** The Forest Service shall, to the full extent allowed under the law, prevent the public disclosure and maintain the confidentiality of place-based Indigenous knowledge and culturally significant information provided by Tribes with the express expectation of confidentiality in accordance with any data sovereignty protocols and best practices.
1-68	**STD:** The Forest shall work with Tribes to consider and integrate where possible any available Tribal climate adaptation plans during Forest Service planning processes.
1-69	**STD:** Ensure that Forest actions are not detrimental to the protection and preservation of Tribal spiritual, religious and cultural sites, practices, and treaty, reserved, or other Tribal rights.
1-70	**STD:** Ensure management activities are coordinated with other governmental agencies and Tribes to ensure requirements of all laws and regulations are met and terms of Indian Treaties are upheld.
1-71	**STD:** The Forest shall meaningfully engage Tribes and work with Tribes as co-stewards in the early identification and development of proposed projects and management activities on the Forest, including those that could involve programmatic agreements, and throughout the planning, implementation, and monitoring processes, as desired by the Tribes with historical connections to the Forest.
1-72	**STD:** The Forest shall provide the fiscal, personnel, and other resources necessary to engage in meaningful, early partnership and consultation with Tribes regarding Tribally-proposed projects or management activities, which directly support Tribal rights and ability to co-steward as consistent with applicable federal law.

1-73	**STD:** To honor Tribal privacy, requests for temporary closure orders for cultural and traditional purposes are accommodated and will be exempt from the Freedom of Information Act if requested under the Tribal Cultural and Heritage Cooperation Authority. A closure shall affect the smallest practicable area for the minimum period necessary for activities of the applicable Tribe.
1-74	**STD:** Proposed practices and management activities shall uphold Treaty and other Tribal rights of all Tribes and the federal trust responsibilities owed to all Tribes and Indigenous Peoples regardless of status.
1-75	**STD:** The Forest shall establish an intertribal forest council with representatives of all relevant and interested Tribes for the purpose of coordination, consultation, training, workforce development, and land management guidance purposes.
1-76	**STD:** Provide opportunities to practice traditional cultural and religious activities such as plant gathering and ceremonial activities to help sustain their way of life, cultural integrity, social cohesion, and economic well-being.
1-77	**GDL:** To ensure Tribal access to First Foods and culturally significant botanical species, collection of special forest products should not be authorized if Tribal access to culturally important resources is diminished, as identified by relevant Tribes. If access or gathering is authorized, such activities should minimize conflicts with Tribal uses, Trust responsibilities and Treaty and other Tribal rights and resources.
1-78	**GDL:** Management strategies should be designed and implemented through meaningful consultation with Tribes and the establishment of sovereign-to-sovereign cooperative agreements to minimize adverse negative effects associated with recreation sites that have historically impacted, or have the potential to impact in the future, reserved Tribal treaty rights, reserved rights and other similar Tribal rights.
1-79	**GDL:** When desired by Tribes, the Forest should appoint one or more Cultural Burn Liaison(s), designated jointly with relevant Tribal nations, to ensure treaty and reserved rights and trust responsibilities are upheld.
1-80	**GDL:** 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 cultural ceremonial and other fire use.
1-81	**GDL:** Thorough the Government-to-Government consultation process, the Forest Service should provide for the free use, without permit, of culturally significant plants by Tribal people should be honored for traditional native cultural gathering. Local agreements are encouraged to support such gathering.
1-82	**GDL:** Upon Tribal request, the Forest should work with Tribes to develop ecocultural stewardship implementation plans to prioritize the restoration of Forest as well as related non-Forest ecosystems and communities to support the propagation of treaty resources , First Foods, and other cultural use of culturally significant species (e.g. basketry, fiber, medicinal, regalia, ceremonial species) and associated habitats.
1-83	**GDL:** To facilitate Tribal community workforce capacity, the Forest should work in meaningful engagement and consultation with relevant Tribes to identify areas of common workforce needs, prioritize training, workforce development, and the award of a significant percentage of contracts, as determined through the Government-to-

	government and Tribal roundtable processes, for associated forest stewardship, construction, fire management, and wildlife and vegetation monitoring to Tribally owned or operated businesses and organizations.
1-84	**GDL:** To honor Treaty and other Tribal Rights, prioritize early and sustained staff-to-staff consultation and coordination with relevant Tribes, in planning, monitoring, and management activities related to Federal and State Threatened and Endangered Species and Species of Conservation Concern.
1-85	**GDL:** The Forest Service should solicit recommendations and/or requests from Tribes that specific land use allocations or other areas of tribal importance should be dedicated to co-stewardship, and complete a framework for assessing and implementing those recommendations and/or requests from Tribes.
1-86	**GDL:** To honor Tribal sovereignty, when planning project-level activities and upon Tribal request, the Forest Service should consider an action alternative that utilizes applicable Tribal land management plan desired conditions, standards, guidelines, and other management direction in setting and achieving the purpose and need of Forest Service projects.
1-87	**GDL:** To ensure that Biological Assessments, Limited Operating Periods, and other Endangered Species Act compliance obligations are aligned with Indigenous knowledge, values and cultural practices, USFS should consult, collaborate, and coordinate with interested local Tribes and other Federal agencies in the development of these documents and operating periods and throughout the consultation process with the U.S. Fish and Wildlife Service.
1-88	**GDL:** Indigenous Youth in the NWFP area develop robust understandings of key concepts for participation in community resilience and land stewardship, including receiving curricular and experiential learning about Indigenous and colonial histories and conditions of the land, Tribal sovereignty, fire ecology, and climate resilience.
1-89	**GDL:** Solicit and act on recommendations and/or requests from relevant and interested Tribes for specific areas within the Plan area where co-stewardship should occur. Complete a framework for assessing and implementing those recommendations from Tribes.
1-90	**GDL:** Interpret the National Historic Preservation Act and National Environmental Policy Act provisions in such a way that protection and avoidance are not the only measures available. In many situations, restoration rather than avoidance is a desired approach.
1-91	**GOAL:** Relevant Tribes and the Forest will meet early and regularly, as defined in meaningful consultation with each relevant Tribe, to better understand the associated needs and viewpoints of all parties. Promote the use of Forest-hosted Tribal forums and events, as well as attendance at Tribally-hosted meetings and events, conducted in a decolonized manner (e.g. co-led by the Tribe and the Forest Service, with traditional foods and ceremony, if desired by the Tribe) as a method to ensure consistent, respectful, and effective contact, consultation, collaboration, and partnership.
1-92	**GOAL:** Consider employee exchange opportunities between the Forest Service and relevant Tribes under Service First agreements or other mechanisms at federal expense. Provide Forest staff with 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.
1-93	**GOAL:** In consultation with relevant Tribes, and through the use of sovereign-to-sovereign cooperative agreements and funding approaches, increase Tribal community workforce opportunities and capacity building in the fields of natural and cultural resources, forest stewardship, fire, and cultural/natural resources and wildlife monitoring on the Forest, focusing on Tribal youth and young adults, ideally in collaboration with local Tribes and by identifying source of funding available to local Tribal natural resource departments and organizations.
1-94	**GOAL:** Upon Tribal request, enter into long-term contracts, master stewardship agreements, and other sovereign-to-sovereign cooperative instruments with Tribes and Tribal entities. Establish a working group of tribal and Forest Service leadership to revise existing agreement templates such that they respect Tribal sovereignty.
1-95	**GOAL:** Upon Tribal request, develop co-stewardship agreements to support the planning, implementation, and monitoring of collaborative projects to enhance resilience of cultural focal species and habitats to wildfire, climate stressors, and future climate scenarios and to co-develop vulnerability assessments and adaptive management plans to build social and ecological resilience to climate change-related stressors at multiple scales in Tribal territories, that may have extended historically across the Forest.
1-96	**GOAL:** Upon Tribal request, develop co-stewardship agreements to support Tribally-led restoration of ecosystem function in terrestrial and aquatic habitats (including dam removal, post-dam removal, floodplain reconnection, and beneficial or intentional burning) to buffer ecosystems against wildfire threats and climate stressors and enhance their ability to respond to disturbances at multiple scales.
1-97	**GOAL:** The Forest actively and frequently works with Tribes to uphold Tribal Treaty and other Tribal Rights to interpret and showcase Tribal heritage and deep cultural connections to ancestral homelands across the Forest. These demonstrations should respect confidentiality of sites and heritage assets.
1-98	**GOAL:** Identify existing federal programs suitable as funding sources to build Tribal workforce, implementation, monitoring, and enforcement capacity. Provide such information to Tribes and assist Tribes in accessing such funds.
1-99	**GOAL:** Steward the land in balance for all life and for future generations, guided by an ethic of respect and reciprocity in which people give back to the forest in return for all the benefits that it provides.
1-100	**GOAL:** Work with Tribes to expand the use of administrative land transfers to secure land for workforce housing and office space for Tribal natural resources, wildlife, fire, climate resilience and cultural resources programs to bolster co-stewardship capacity
1-101	**GOAL:** USFS consults and coordinates with Tribes to identify culturally relevant characteristics of mature and old growth habitats associated with cultural use species and develop management strategies through co-stewardship agreements to promote, enhance and recruit culturally important plant, animal and fungi communities in appropriate growth forms and locations.

1-102	**MA:** Establish respectful and effective relationships and partnerships with relevant Tribes, tribal communities, and native traditional cultural practitioners who have rights and interests in the Forest and for whom lands within the administrative boundaries of the unit have traditional, historical, cultural, and/or spiritual importance.
1-103	**MA:** In the development of Forest annual work plans, encourage the inclusion of Tribes at the beginning of project development and prioritization of annual (and longer term) plans and programs of work.
1-104	**MA:** Provide the fiscal, personnel, and other resources to allow relevant Tribes to be able to respond to Forest Service requests of relevant Tribes regarding the designation of specific lands suitable for co-stewardship and co-develop a framework for assessing and implementing those Tribal recommendations.
1-105	**MA:** Develop and implement cost-share, grant, and other financial support mechanisms to enable relevant Tribal government and Tribal staff participation in co-stewardship efforts, consultation, collaboration, coordination, monitoring, planning, administrative support, environmental analysis, and other Forest Service activities.
1-106	**MA:** Engage and consult with affected Tribes in the implementation of any barred owl control strategies.
1-107	**MA:** Forest Service Regional leadership in the NWFP Area partners with Tribes, environmental education organizations, and State Education Boards to develop or adjust academic standards, curriculum, and instructional materials to ensure public education provides students with robust understandings of climate resilience, fire ecology, and Indigenous sovereignty.
1-108	**MA:** Source Tribally-collected seeds and vegetation stocks from local Tribes for on-Forest restoration and management activities.
1-109	**MA:** Collaborate closely with Tribes to incorporate Indigenous knowledge into project and program planning, prioritization, implementation, and monitoring, but only in ways that honor Tribal data and knowledge sovereignty policies and protocols; that involve free, prior, and informed consent; and wherein culturally sensitive information is protected. This includes collaboration with Tribes on the development and implementation of Biological Assessments, Environmental Impact Statements, Environmental Assessments, and other management and planning documents.
1-110	**SUIT:** All administratively-designated lands are suitable for co-stewardship by Tribes, upon Tribal request to undertake co-stewardship activities.
1-111	**MONT:** Conduct ongoing monitoring of visitor use and develop responses in coordination with relevant Tribes when needed to safeguard treaty, reserved, and other similar Tribal 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.
1-112	**MONT:** At Tribal request and in consultation and cooperation with relevant Tribes, conduct regular monitoring of specified culturally significant resources and First Foods. Support Tribes in selecting the relevant species, designing the monitoring plans, conducting the monitoring, and storing and sharing the data according to Tribal knowledge and data sovereignty protocols. Where the Forest Service proposes to

	monitor culturally significant resources, ensure any resulting research or data is protected in consultation with relevant Tribes.
1-113	**MONT:** In cooperation with relevant and interested Tribes and according to Tribal knowledge and data sovereignty protocols, conduct monitoring of implementation of the special forest products program in the Forest to ensure that Tribally-important culturally significant resources are harvested in a manner and rate consistent with sustainability.
1-114	**MONT:** In cooperation with, and as led by relevant and interested Tribes and/or their designees, co-develop monitoring thresholds or triggers and adaptive management pathways that incorporate Indigenous knowledge into management or mitigation responses while protecting Tribal data sovereignty and culturally sensitive information.
1-115	**MONT:** Work with Tribes to co-develop monitoring thresholds or triggers and adaptive management pathways that incorporate Indigenous knowledge into management or mitigation responses while protecting Tribal data sovereignty and culturally sensitive information.
1-116	**MONT:** In situations where Cultural Monitoring is required for implementation activities, these activities should include a tribally-designated representative, not just a Forest-designated archaeological monitor.

GLOSSARY:

- Beneficial fire: Also known as "good fire," beneficial fire refers to prescribed fire, cultural burning, and wildland fire managed for resource benefit.
- Co-management: describes arrangements to manage natural resources with shared authority and responsibility. While treaty rights, legislation and other legal mechanisms have fostered such arrangements, co-management is more generally the result of extensive deliberation and negotiation to jointly make decisions and solve problems. (Braiding Sweetgrass Report)
- Co-stewardship: a broad range of working relationships between the federal government and Indigenous Peoples exercising the delegated authority of federally recognized Tribes. Co-stewardship can include co-management, collaborative and cooperative management, and Tribally led stewardship, and can be implemented through cooperative agreements, memoranda of understanding, self-governance agreements, and other mechanisms. (Braiding Sweetgrass Report)
- Consultation: The timely, meaningful, and substantive dialogue between USDA officials who have delegated authority to consult and the official leadership of federally recognized tribes, or their designated representative, pertaining to USDA policies that may have Tribal implications (USDA 2013: 8). Consultation is a government-to-government exchange rooted in the federal trust responsibility to Tribal nations. Meaningful consultation involves mutually agreed upon processes for exchange, defined by each Tribe, that take place early and often in land management and environmental planning (NWFP Tribal Monitoring Report).
- Cultural Management Areas: *TBA*
- Cultural heritage monitoring: *TBA*

- Cultural burning: also referred to as, “Indigenous fire use,” fire use on lands in a natural or modified state for Tribal cultural purposes and governed solely by Tribal law, policy, or Tribal knowledge, practice, and belief systems. Cultural burning is distinct from prescribed fire, and defined differently by different Tribes.
- Data Sovereignty: the right of a nation to govern the collection, ownership, and application of its own data, deriving from tribes' inherent right to govern their peoples, lands, and resources (University of Arizona Native Nations Institute)
- Ecocultural restoration: also referred to as “Ecocultural management” and “Ecocultural stewardship”: the process of restoring climate- and wildfire-adapted ecosystem structure, composition, and processes, and the Indigenous cultural practices that helped shape them over deep time. Braiding together WS with IK restores the practice of place-based stewardship and reconnecting people to place. IK will need to be applied in a way that recognizes current distorted, novel conditions created by a century of western management, fire suppression, and cessation of management. (Braiding Sweetgrass Report) Ecocultural restoration centers around the mutual flourishing of Indigenous communities and their interconnected ecosystems (Long, Goode, and Lake)
- First Foods: Foods relied upon by Indigenous peoples for cultural and physical health, and cultivated through Indigenous management and stewardship (ITEP)
- Food sovereignty: the ability of communities to determine the quantity and quality of the food that they consume by controlling how their food is produced and distributed. (DOI BIA) Tribal food sovereignty refers to the ability of Tribal nations to develop and implement self-determined definitions of food sovereignty, and “design and maintain food systems and enact policies that advance tribal priorities for ensuring that tribal citizens have the sustenance they need to thrive physically, mentally, socially, and culturally not just today, but for the generations to come” (National Congress of American Indians)
- Indigenous Knowledge: also referred to as, “Native Knowledge,” “Native Knowledge,” “Traditional Knowledge,” “Indigenous Science” and “Traditional Ecological Knowledge.” Indigenous knowledge. A body of observations, oral and written knowledge, innovations, practices, and beliefs developed by Tribes and Indigenous Peoples through interaction and experience with the environment. It is applied to phenomena across biological, physical, social, cultural, and spiritual systems. Indigenous Knowledge can be developed over millennia, continues to develop, and includes understanding based on evidence acquired through direct contact with the environment and long term experiences, as well as extensive observations, lessons, and skills passed from generation to generation. Indigenous Knowledge is developed by Indigenous Peoples including, but not limited to, Tribal Nations, Native Americans, Alaska Natives, and Native Hawaiians. Each Tribe or Indigenous community has its own place-based body of knowledge that may overlap with that of other Tribes. Indigenous Knowledge is based in ethical foundations often grounded in social, spiritual, cultural, and natural systems that are frequently intertwined and inseparable, offering a holistic perspective. Indigenous Knowledge is inherently heterogeneous due to the cultural, geographic, and socioeconomic differences from which it is derived, and is shaped by the Indigenous Peoples’ understanding of their history and the surrounding environment. Indigenous Knowledge is unique to each group of Indigenous Peoples and each may elect to utilize different terminology or express it in different ways. Indigenous Knowledge is deeply connected to the Indigenous Peoples holding that knowledge. (2012 Planning Rule)
- Knowledge sovereignty: the right to maintain, control, protect, and develop Indigenous cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of Indigenous sciences, technologies, and cultures, including human and genetic resources, seeds, medicines,

knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports, and traditional games and visual and performing arts. It includes the right to maintain, control, protect and develop Indigenous intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions. (UNDRIP) Knowledge sovereignty acknowledges that the practice and transmission of Indigenous knowledge requires the ability to practice traditional land management and cultural practices (Karuk Knowledge Sovereignty Report)

- Prescribed burning: The controlled application of fire by a team of fire experts under specified weather conditions to restore health to ecosystems that depend on fire. It is distinct from "cultural burning." (USFS)
- Special Forest Products: Products collected from National Forest System lands and include, but are not limited to: bark, berries, boughs, bryophytes, bulbs, burls, Christmas trees, cones, ferns, firewood, forbs, fungi (including mushrooms), grasses, mosses, nuts, pine straw, roots, sedges, seeds, transplants, tree sap, wildflowers, fence material, mine props, posts and poles, shingle and shake bolts, and rails. Special forest products do not include sawtimber, pulpwood, non-sawlog material removed in log form, cull logs, small roundwood, house logs, telephone poles, derrick poles, minerals, animals, animal parts, insects, worms, rocks, water, and soil. (FSM 1560)
- Traditional Cultural Properties: Properties eligible for inclusion in the National Register of Historic Places because of their association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b)are important in maintaining the continuing cultural identity of the community (USFS)
- Traditional cultural use species / culturally significant species / Tribal cultural-use species: Plants and animals that Tribal communities steward and harvest for cultural purposes including for food, medicine, spiritual practices, and maintaining traditional knowledge (Karuk Climate Adaptation Plan).
- TEK survey processes and standards? (see 1-48): Likely need a definition
- Traditional and Cultural Purpose: As per the Culture and Heritage Cooperation Authority (25 U.S.C. 3052(9)), a definable use, area or practice identified by an Indian tribe as traditional or cultural because of the long-established significance or ceremonial nature of the use, area or practice to the Indian tribe. (FSM 1560)
- Treaty Rights: Those rights or interests reserved in treaties for the use and benefit of Tribes. The nature and extent of treaty rights are defined in each treaty. Only Congress may abolish or modify treaties or treaty rights. (FSM 1560)
- Tribal Rights: Those rights legally accruing to a Tribe or Tribes as set forth in the U.S. Constitution, treaties, statutes, executive directives and court decisions. (FSM 1560)
- Treaty and other Tribal Rights: treaty rights, tribal rights, and other reserved, retained, and other similar rights.
- Tribal sovereignty: The inherent right of Tribes to self-govern.
- Trust responsibility: Trust responsibility arises from the United States' unique legal and political relationship with Indian tribes. It derives from the Federal Government's consistent promise, in the treaties that it signed, to protect the safety and well-being of the Indian tribes and tribal members. The federal trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to all federally recognized American Indian and Alaska Native tribes and villages. (See also FSM 1563.9b). (FSM 1560)

- Western science: a system of knowledge that relies on certain laws that have been established through the scientific method to understand phenomena in the world around us. The process of the scientific method begins with an observation followed by a prediction or hypothesis which is then tested. Depending on the test results, the hypothesis can become a scientific theory or "truth" about the world. Scientific theories or "truths" relate to certain values and ideas and are not necessarily objective. (We Are Fire)

2. Support Economic Opportunities and Sustainable Communities

The development and implementation of the NWFP has had significant socio-economic, cultural, workforce, and financial impacts on communities that rely on National Forest lands. The NWFP has largely not achieved its promise of supporting economies and community wellbeing, most of which was meant to be accomplished through the provision of predictable timber and non-timber resources from NFS lands (see Forest Stewardship Section). This has undermined trust, credibility, collaboration, predictability, and community support in the management of our public lands.

Meanwhile, many of the social, economic, and ecological challenges and opportunities facing communities were not anticipated by the NWFP 30 years ago. This includes expanding community and public expectations around the benefits that public lands should provide (e.g., diverse and equitable recreation opportunities, a deeper and more integral role for Tribes and Tribal people, workforce and economic benefits derived from non-timber resource management, etc.), and emerging risks to the resilience and sustainability of conditions on and beyond National Forest System lands.

Communities are facing increasing risks from natural hazards (e.g., wildfire, flooding, debris flows) related to ongoing and anticipated climate impacts exacerbated by the current conditions on National Forest System lands. Rural stagnation and flight, fueled by a myriad of factors, is jeopardizing the fundamental ability of the agency and community partners to plan and implement the land management envisioned by the NWFP. An additional challenge impacting communities is the ability to manage landscapes, given trends in decreasing workforce availability and capacities.

The EIS for the NWFP amendment should:

- Strongly emphasize intent of NWFP to deliver on socioeconomic goals including producing predictable levels of timber and nontimber resources, maintaining the stability of local and regional economies, assisting with long-term economic development and diversification, and promoting collaboration in forest management. The Forest Service should be faithful to the intent of the NWFP and Land Use Allocations to achieve socioeconomic and ecological goals.
- Analyze the recreation values to communities within the entirety of the NWFP area. This should include a consideration of the value that intact public forests provide as the settings for outdoor recreation opportunities, and how forest management activities, as well as high-severity wildfire and other stressors to forest ecosystems, affect these settings.
- Ensure the already required social and economic monitoring for the NWFP be modernized/revised in alignment with current conditions and needs (such as better quantification and understanding of workforce(s) available to conduct this work, agency connections to community, etc.)

What's currently in the Northwest Forest Plan: As described in the Record of Decision for the 1994 Amendment, social and economic factors were considered in developing and analyzing the alternatives. However, the Standards and Guidelines largely lack specific plan direction related to economics and communities aside from some considerations of social objectives and timber supply as it relates to local communities for Adaptive Management Areas (NWFP S&Gs D-4, D-8 to D-9). The section on Monitoring also mentions social and economic effects (NWFP S&Gs E-5).

These recommendations support:

- ✓ Incorporation of Indigenous Knowledge into planning, project design, implementation, and meeting the agency's trust responsibilities, while protecting confidentiality and preventing appropriation
- ✓ Improved fire resistance and resilience
- ✓ Communities that rely on National Forest System lands

RECOMMENDATIONS	
2-1	**DC:** NWFP area forests provide significant social, cultural, and economic opportunities for human communities. NWFP area forests sustain place-based meaning tied to cultural identity and heritage; local economies and ways of life; traditional and subsistence uses; aesthetic, spiritual, and recreational experiences; and Indigenous histories, cultures, and practices.
2-2	**DC:** Recreation activities across the Forests contribute to the sustainability of the cultural, social, and economic values of local communities and Tribes through jobs and income in the local economy, community stability or growth, and the quality of lifestyles in the area.
2-3	**DC**: Local service and stewardship contracting and/or cooperative agreements represent a steady to expanding percentage of non-staff spending on public lands stewardship.
2-4	**DC:** The Forest collaborates with affected communities to support youth engagement programs to cultivate the next generation of natural resource professionals.
2-5	**DC:** The Forest supports mentorship and leadership programs designed in collaboration with interested community members to recruit and engage natural resource workforce professionals.
2-6	**DC:** Youth in the NWFP area are aware of and have access to opportunities to be involved in building wildfire resilience on nearby National Forest lands, including through federal employment, youth corps, and community-based opportunities.
2-7	DC: National Forests in the NWFP area have partnerships with community colleges and universities, including Tribal colleges, to train, engage, and employ students in restoring wildfire resilience. College fire programs partner with National Forests to implement prescribed burns and other management for wildfire resilience.
2-8	**OBJ:** The Forest will continue to monitor socioeconomic conditions in local communities and infrastructure every 5 years to better understand trends and opportunities to foster economic development supported by the National Forest System. This monitoring will be revised in alignment with the NWFP revision, to better capture the more contemporary social and economic aspects of community-agency engagement, and the workforce(s) connected to NWFP management. This includes tracking timber sales, contracting and grants and agreements to understand where and how businesses and organizations are working on NFS lands and changes over time.
2-9	**GDL:** To facilitate community workforce capacity, the Forest should work in meaningful engagement and consultation with relevant communities to identify areas of common workforce needs, prioritize training, workforce development, and the award of a significant percentage of

	contracts, for associated forest stewardship, construction, fire management, and wildlife and vegetation monitoring to locally owned or operated businesses and organizations.
2-10	**GDL:** At-least biennially, local units should assess and document local cooperator and contractor interests and capabilities to help inform and align: 1.) management strategies and actions and 2.) the packaging of work opportunities (i.e. cooperative agreements, contracts) to be accessible to those local cooperators and operators.
2-11	**GOAL:** 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.
2-12	**GOAL**: Establish a staff position on each National Forest to foster partnerships with colleges, K-12 education, and local organizations to create and expand comprehensive fire-related student training and learning opportunities.
2-13	**MA:** Annually evaluate utilization of the full range of Cooperative Agreement tools to leverage partnerships and capacity and provide direct economic contributions to local communities.
2-14	**MA:** At least annually, Forests and/or local management units should host a meeting open to all interested parties, including active recruitment of local cooperators and contractors/operators, to discuss interests, alignments and capabilities related to the current and future program of work.
2-15	**GOAL/MA:** To meet the pace and scale of needed wildfire resilience treatments, including thinning, prescribed fire, and cultural fire, and address the intergenerational burdens of intensifying risk, Forests should collaborate with K-12 and higher educational institutions to develop shared strategies and programs for student awareness and involvement in pathways into wildfire resilience work. The Forests should work with high school and college programs and engage with experiential and curricular learning in elementary and middle schools.
2-16	**GDL/MA:** National Forests in the NWFP area should generate partnership agreements that allow college and university fire programs to engage in prescribed fire work and training on National Forest lands, providing mutually beneficial outcomes of increasing the pace and scale of wildfire resilience treatment, and engaging youth in land stewardship career pathways.

3. Fire Resilience

Wildland fire is a critical socio-cultural and ecological process that generates benefits and losses to the NWFP region. Indigenous cultural burning, prescribed fire, and wildfire all need to be considered holistically to build fire resilience into our forests and communities, now and into the future. Fuels treatments such as thinning and prescribed burning have not occurred at the necessary pace and scale needed to reduce the risk of uncharacteristic wildfires. Recent wildfire behavior, fire effects, and loss of valued resources across the gradient of forest types (dry to moist) throughout the NWFP area is undermining NWFP goals, resulting in undesirable impacts to ecosystems and community livelihoods. Outdoor recreation activities are increasingly affected by severe wildfires including damage to recreation infrastructure, closures, smoke, damage to scenic values and impacts to local recreation economies. In complement to the fire-related recommendations outlined in Sections 1, 4, 6, and 7, this Section on Fire Resilience outlines factors necessary to successful modernization of the NWFP through pre-fire and post-fire actions related to wildland fire.

What's currently in the Northwest Forest Plan: The NWFP Standards and Guidelines (S&Gs) address fire and fuels management in several places:

- Late-Successional Reserves – Guidelines to Reduce Risks of Large-Scale Disturbances. This section provides plan direction that allows for management in LSRs to reduce risks from disturbances, including fire. The section states that risk reduction activities should focus on younger stands but treatments are allowed in older stands with some conditions. The risk reduction guidelines are primarily intended for drier provinces (East of the Cascades and the Oregon and California Klamath Provinces); however, they do allow for risk reduction in other provinces "if levels of fire risk are particularly high" (NWFP S&Gs C-12 to C-13).
- Late-Successional Reserves – Fire Suppression and Prevention. This section provides planning direction for fire management planning and fire suppression in LSRs. The section states: "In Riparian and Late-Successional Reserves, the goal of wildfire suppression is to limit the size of all fires. When watershed analysis, province-level planning, or a Late-Successional Reserve assessment are completed, some natural fires may be allowed to burn under prescribed conditions. Rapidly extinguishing smoldering coarse woody debris and duff should be considered to preserve these ecosystem elements." (NWFP S&Gs C-18).
- Managed Late-Successional Areas (C-22 to C-28). This LUA is specifically focused on "certain owl activity centers on the eastside where regular and frequent fire is a natural part of the ecosystem."
- Riparian Reserves – Fire/Fuels Management (C-35 to C-36).
- Matrix – Fire and Fuels Management (C-48)

These recommendations support:

- ✓ Improved fire resistance and resilience
- ✓ Capacity of ecosystems to adapt to climate change
- ✓ Conservation and recruitment of old growth forest conditions and habitat for species that depend on old growth ecosystems and regional biodiversity
- ✓ Incorporation of Indigenous Knowledge into planning, project design, and implementation and meeting the agency's trust responsibilities
- ✓ Communities that rely on National Forest System lands

RECOMMENDATIONS	
3-1	Stewardship of NWFP landscapes must recognize variability in fire regimes and effects of fire. Historically, this variability supported multiple pathways for the development of fire-adapted mature and old-growth forests across moist and dry forest types, and diverse non-forested habitats maintained by fire. Fire is inevitable and managers need to work with fire and not against fire to accomplish goals of the NWFP. The Committee recommends the variety in fire regimes is made clear in the Record of Decision, and language reflects recommendations outlined by the FAC related to forest stewardship, Indigenous inclusion, climate change, and community protection areas, in the context of fire resilience.
3-2	**DC:** Forest health and fuel treatment projects reduce uncharacteristic fuel loading to create more fire resilient stands.

3-3	**DC:** Forest health, stewardship, and fuels treatment projects should consider past and present diversity in fire regimes and fire effects as well as future variability in fire expected with climate change.
3-4	**DC:** Woodlands, meadows and other non-forested areas (e.g., affected by conifer encroachment and fire exclusion) that make an important contribution to stand and landscape scale fire resilience, wildlife habitat, and Tribal cultural values are restored. In doing so, protect and retain any older, legacy fire-resistance conifers and hardwood important to ecological and cultural values of the site.
3-5	**DC:** Forest health and fuels treatment projects attempt to minimize negative impacts and seek benefits to recreation infrastructure and settings and rehabilitate trails and other recreation infrastructure when impacts are unavoidable.
3-6	**DC:** Forest health and fuels treatment projects contribute to the sustainability of the social and economic values of local communities, including recreation opportunities. Successful projects result in fewer and shorter duration recreational closures due to high intensity wildfires.
3-7	**STD:** Trails and recreation infrastructure impacted by fire or damaged by fire suppression operations shall be repaired to meet agency standards, including restoration of unique recreational values and use of sustainable design principles, consistent with federal law and in consultation with Tribes.
3-8	**GOAL/MA:** Expand the strategic use of beneficial fire in areas likely to experience fire to reduce impacts of wildfire. Consider the use of fire within past fire footprints to manage fuels and reduce the impacts of reburns.
3-9	**GOAL:** Education and enforcement help limit unintentional human ignitions while highlighting the social and ecological benefits of cultural fire and prescribed fire.
3-10	**GOAL:** Resources, planning, infrastructure, training, and workforce development strengthen the capacity of communities to prepare for, respond to, manage, and recover from wildland fire. This includes proactive management for ecological restoration, fuels reduction, cultural burning where desired by Tribal partners, prescribed fire, and wildland fire. This includes recognition and inclusion of diverse perspectives including but not limited to, Tribal communities, timber-based economy communities, recreation communities, and biodiversity.
3-11	**GOAL:** Work with federal and state agencies on regulatory processes and smoke and air quality to streamline regulatory and process burden to increase acres of burning. Balance the air quality impacts of uncontrolled wildfire with the air quality impacts of prescribed fire and cultural fire, while ensuring protection of public health, consistent with the Clean Air Act.
3-12	**GOAL:** Coordinate with regulatory agencies and Tribes to remove barriers to fuel treatments, prescribed fire and certain cultural fire use related to the Endangered Species Act (including related to Limited Operating Periods and critical habitat designations), where risk of short-term impacts to species and habitats is acceptable given long-term potential benefits. (See also 1-33 and 1-87)
3-13	**GOAL:** Encourage the appropriate use of prescribed fire in designated wilderness areas where prescribed fire is determined to be the minimum tool required to maintain

	wilderness character. Reduce barriers to the use of prescribed burning, such as through improved public and agency understanding of the historical role of fire, including Indigenous cultural burning, in preserving wilderness values.
3-14	**GOAL:** Target fire resilience strategies, including hazardous fuels treatments and post-fire restoration, in areas that are also valuable to recreationists and appropriate for outdoor recreation.
3-15	The intent of the following set of connected Management Approaches (MA) is to establish broad goals and processes for prioritizing fuel treatments (e.g. strategic tree removal, thinning, prescribed fire, managed wildfire and coordination with Tribes on cultural burning) to promote fire-adapted landscapes and communities: • **MA**: Coordinate with Tribes, State agencies, communities (e.g. CWPPs), PODS/PCLs and conduct IWRAs to prioritize, plan and implement fuels treatments in areas with multiple overlapping social and ecological benefits to ensure community fire protection goals e.g., highly valued resources and assets including recreation infrastructure, and support ecological functions at a landscape scale. • **MA**: Prioritize fuel treatments in and around areas where uncharacteristic high severity wildfire poses the greatest threat to sensitive plant communities, critical wildlife habitats and ecological functions of old growth. • **MA:** Prioritize fuel treatments in post-fire landscapes that will restore old forest and critical habitat functions, promote fire-adapted stands and increase future fire-resilience at a landscape scale. • **MA:** Design and implement fuels treatment prescriptions that account for diversity of forest conditions (e.g., moist, dry, young, old) and land use allocations (e.g., LSR, matrix, etc.) (See Forest Stewardship)
3-16	**MA:** The Forest Service incorporates the best available scientific information and Traditional Ecological Knowledge in planning and implementing forest health, forest stewardship, and fuels treatment projects to accomplish fire resilience objectives
3-17	**MA**: When implementing fuel treatments (forest thinning, prescribed fire), vegetation treatment prescriptions shall be implemented to protect fish and wildlife habitats. The Forest Service will consult with state agencies and Tribes to plan treatments areas to avoid adverse effects to fish and wildlife habitats. If adverse impacts to fish and wildlife habitats are unavoidable, the Forest Service shall mitigate those impacts consistent with state and/or Tribal recommendations or policies (including Tribal Forest Protection Act).

Post-Fire/Post-Disturbance Non-Salvage Management Activities

This section provides recommendations for post-fire management that complements salvage-related post-fire management guidance provided in Section 6 Forest Stewardship. Some of these recommendations also relate to broader disturbance types, including wind, insect, pathogen agents of mortality, as noted. Overall, post-fire management should support diverse ecological and cultural values over time and reinforce landscape-scale fire resilience.

RECOMMENDATIONS	
POST-DISTURBANCE MANAGEMENT (NON-SALVAGE)	
3-18	**DC:** Post-disturbance landscapes are stewarded strategically over time to restore forest composition and structure, wildlife habitat and ecosystem function.
3-19	**DC:** Post-disturbance (e.g., fire, wind, pathogens, debris flows) management in plantations facilitates development of mature and old forests, maintains large snags and downed wood characteristic of the forest type (see Forest Stewardship Section 6), and recruits key non-forest habitats in appropriate locations across the landscape.
3-20	**DC:** Excess surface and ladder fuels (including shrubs and trees) that are uncharacteristic of the ecosystem due to fire exclusion and suppression are removed through strategic fuel management, silvicultural treatments and prescribed burning to reorient stands to fire-resilient species compositions and structures.
3-21	**Goal**: Collaborate with Tribes to develop co-stewardship agreements covering revitalization of cultural species and associated habitats following fire-related disturbances.
3-22	**MA**: Design and implement post-disturbance silvicultural activities such as planting, plantation management, thinning, invasive control and prescribed burning to steward landscape and stands to desired conditions, composition and structure.
3-23	**MA:** Consider prescribed fire in burned areas to manage fuels and restore resilient forest conditions.
3-24	**MA:** For large wildfire events, develop a plan to monitor and manage invasive species within three years after the fire. Implement the monitoring and management plan for invasive plant species in large wildfire footprints for at least seven years; develop and implement mitigation and control strategies.
3-25	**MA:** Implement reforestation strategies that support a diversity of native species and fire-adapted and climate resilient habitat mosaics. Waive or adjust stocking requirements and planting guidelines in appropriate locations to provide high quality early seral and non-forest habitat.
3-26	**MA**: Require rehabilitation of recreation infrastructure during post-disturbance management. Within disturbed areas, prioritize forest health, hazard tree and vegetation removal near trails, slope stabilization around trails, and restoration of outdoor recreation facilities lost in wildfires.
3-27	**Standard** or **MA**: Minimize area and facility closures related to wildfires and other disturbances 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.

4. Anticipate Climate-Driven Shifts and Maintain Ecosystem Integrity

The NWFP did not adequately anticipate the scope, scale, or impacts of climate change. Climate change is posing significant threats to ecosystem resiliency and function, biodiversity, and community health and well-being across the NWFP planning region. Indigenous and frontline communities are already experiencing a range of climate impacts and are developing innovative strategies to mitigate and adapt to changing conditions. Climate impacts like high temperatures, extreme flooding, severe wildfires, loss of snowpack, and drought detrimentally affect the experience of forest users, and in many cases prevent users from experiencing forests entirely. Many species, including threatened and endangered species, species of conservation concern and culturally significant species require resilient and connected habitats to move, find refugia, and adapt to climate change. Forests can and should play a critical role in providing services in the face of climate change, including providing carbon sequestration, connected habitats for climate driven migration, and refugia for plant, animal, and fish species.

Climate change is significantly altering the ecological processes and disturbance regimes which shape NWFP area forests. 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. Climate change-driven shifts in the distribution of forest types, and in fire and precipitation regimes are projected to accelerate across the NWFP Area. 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.

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. 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. More resources for research, monitoring and surveillance of pest and pathogen response to climate change are needed to abate the spread of infectious diseases in plants, animals and humans across the planning area.

The NWFP needs to be amended to provide the USFS and communities within the planning area with necessary direction, flexibility, and capacity 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, some of which may have a very different look and feel to our contemporary forest ecosystems. The Forest Service must work in partnership with other land managers (Tribes, States, other Federal Agencies, NGOs and communities). The NWFP needs to incorporate various forest management and climate vulnerability and adaptation plans and strategies that have been developed but not yet incorporated into Forest Service management plans. Amendments to address climate change must also incorporate Indigenous science and stewardship practices and be responsive to the needs and values of Indigenous communities throughout the NWFP 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.

The EIS for the NWFP amendment should consider:

- Climate change effects and the need for adaptation measures. Climate change adaptation includes initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects, including: building resistance to climate-relate stressors, mitigating and buffering the severity of climate change impacts, increasing social and ecological resilience to climate change-related disturbances , and facilitating ecological transitions in response to changing environmental conditions.

What's currently in the Northwest Forest Plan: Climate change considerations are not currently included in the Northwest Forest Plan Standards and Guidelines.

These recommendations support:

- ✓ Improved fire resistance and resilience
- ✓ Capacity of ecosystems to adapt to climate change
- ✓ Conservation and recruitment of old growth forest conditions and habitat for species that depend on old growth ecosystems and regional biodiversity
- ✓ Incorporation of Indigenous Knowledge into planning, project design, and implementation and meeting the agency's trust responsibilities
- ✓ Communities that rely on National Forest System lands

RECOMMENDATIONS	
4-1	**DC:** Forest and non-forest habitats are actively and adaptively managed to provide ecosystem diversity and resilience to climate change and other stressors, including but not limited to altered frequency and magnitude of fire regimes, drought and flood events.
4-2	**DC:** The composition, structure, and function of National Forests reflect a diversity of ecosystems that are resilient to climate change stressors such as fire, drought, insects, pathogens, and high wind events.
4-3	**DC:** Native plant and animal communities are supported by healthy ecosystem functions and diverse, healthy and resilient natural habitats.
4-4	**DC:** Diverse non-forest habitat types including meadows, prairies, woodlands and wetlands are present across the landscape to promote biological diversity, cultural use species and ecological resilience to climate change and other stressors.
4-5	**DC:** Critical Infrastructure is managed to improve resilience to large storms and other hydrologic events.
4-6	**DC:** Beavers are present in appropriate riparian areas and support climate adaptation and ecosystem integrity as an ecological engineer.
4-7	**DC:** Terrestrial and aquatic ecosystems provide habitat connectivity, permeability, and refugia from climate change and disturbance stressors, for the movement and long-term persistence of native species at the landscape scale, supporting ecological integrity in a changing climate.
4-8	**DC:** Outdoor recreation opportunities, including outdoor recreation infrastructure and settings, are resilient to high-severity wildfire and climate-related events like flooding and atmospheric rivers.
4-9	**DC:** 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.

	High risk roads and trails are relocated and appropriately sized culverts and stream crossings are constructed.
4-10	**STD:** Non-forested habitats shall be managed to restore, enhance, and maintain biodiversity of species reliant on these habitats.
4-11	**GDL:** To the extent that data is available, desired future conditions for landscape scale vegetation composition, vegetation structure, and ecosystem function of forested and non-forested habitats incorporate estimates of "future range of variability" in addition to "historical range of variability" reference conditions. This is intended to facilitate active consideration of projected future climate conditions and identify conditions that are resilient in the face of climate change.
4-12	**GDL:** Silviculture treatments and other stand-scale management activities should actively consider climate change effects and include adaptation measures.
4-13	**GDL:** Where applicable, site-specific projects should manage and mitigate risk of spread of invasive species.
4-14	**GDL:** To help ensure that climate adaptation strategies and management activities are based on the best available scientific information, forests should consider climate change vulnerability assessments and adaptation options developed by Forest Service research stations and others.
4-15	**GOAL:** Forests work with Tribes and partners such as academia, NGOs, forest collaboratives, and community groups on climate modeling, research, monitoring, and adaptation approaches.
4-16	**GOAL:** Coordinate with state wildlife agencies and Tribes on beaver management and restoration issues on national forest lands. Identify and enhance habitats to encourage beaver to populate uninhabited areas.
4-17	**MA or GOAL:** Develop threshold assessments for monitoring climate change stressors including but not limited to frequency, scale, and intensity of wildfire, fish and wildlife population decreases, frequency of extreme heat days, range shifts in vegetation and wildlife, prolonged elevation of average stream temperatures, and significant changes in precipitation patterns (e.g. drought and flooding). Assessments will include potential management responses if monitoring indicates a climate change stressor threshold is exceeded. (See also 8-4)
4-18	**MA:** To the extent data is available or analysis is feasible, consider climate change vulnerability and adaptation in project planning.
4-19	**MA:** Ensure that site specific projects evaluate stream crossings and ensure that affected infrastructure is hardened against or can mitigate the effects of large hydrologic events.
4-20	**MA:** Ensure that site specific projects evaluate road conditions and take action to reduce risks of large hydrologic events and associated potential for erosion, mass wasting, and other aquatic impacts. Evaluation of flood risk should consider the best available science regarding potential effects of climate change. Appropriate corrective action may include replacement of undersized or underperforming culverts, removal of unneeded roads, or other forms of road remediation.
4-21	**MA:** Ensure that site specific projects evaluate opportunities for stream and watershed restoration that reduce climate change vulnerability including but not limited to treatment of invasive species, planting and cultivation of desired native species cover, stabilization and remediation of erosion, restoration of floodplains, and placement or recruitment of large wood over time.
4-22	**MA:** Consider using warnings and other risk mitigation methods other than closures for areas and sites impacted by climate-related disturbances like wildfire and floods. When mitigation by other means does not reduce risk to acceptable levels, try to limit targeted closures to the smallest temporal and spatial extent possible.

5. Support Carbon Sequestration and Storage

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 moist 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.

What's currently in the Northwest Forest Plan: The Basis for Standards and Guidelines notes late-successional ecosystems perform several ecological functions, including storing carbon. However, the 1994 NWFP does not include additional plan direction related to carbon sequestration and storage or the disturbances that might affect these functions.

These recommendations support:

- ✓ Improved fire resistance and resilience
- ✓ Capacity of ecosystems to adapt to climate change
- ✓ Conservation and recruitment of old growth forest conditions and habitat for species that depend on old growth ecosystems and regional biodiversity

RECOMMENDATIONS	
5-1	The existence, maintenance, and management of NW forests should position carbon accumulation and storage as an important ecosystem service. Specific forest management recommendations for carbon sequestration and storage are connected to the Committee's overall forest stewardship recommendations for moist and dry forests across land use allocations. For example, the forest stewardship recommendations for moist forests in LSR's to either prohibit timber harvesting (>125 years of age) or to enhance development of late successional habitat (<125 years of age) are also intended to result in a continued rebuilding and maintenance of in-forest carbon stocks. Similarly, the forest stewardship recommendations to focus on ecological restoration in dry forests across land use allocations are intended to "stabilize" forest carbon stocks from catastrophic losses due to uncharacteristic fire. In dry forests, this includes a long-term shift from carbon storage in denser forest stands composed of many smaller, drought and fire sensitive trees to stands with fewer, larger, drought and fire-resistant trees. (See also Forest Stewardship)

6. Forest Stewardship

The Committee's recommendations for Forest Stewardship include supporting predictability for sustainable timber production, conservation of mature and old forests and trees, and guidance for post-fire salvage.

What's currently in the Northwest Forest Plan: Current NWFP direction relevant to old-growth and timber management is found in Standards and Guidelines for LSRs (C-9 to C-21) and Matrix (C-39 to C-61). Especially relevant plan direction includes:

- LSR S&Gs for Silviculture, which generally do not allow for harvest in stands over 80 years old in moist forest provinces (with some exceptions for risk reduction) and which indicate that risk reduction in dry forest provinces should focus on younger stands (though they allow for treatments in older stands with certain conditions).
- Matrix S&Gs, which currently do not include any age limits and do not make distinctions between dry and moist forests. Matrix S&Gs do include plan direction related to coarse woody debris, green-tree and snag retention, and other topics.
- Salvage within LSRs is discussed on pages C-13 – C-16 of the NFP S&Gs; salvage is not addressed for other land use allocations beyond requirements for green tree and retention.

These recommendations support:

- ✓ Incorporation of Indigenous Knowledge into planning, project design, implementation, and meeting the agency's trust responsibilities, while protecting confidentiality and preventing appropriation
- ✓ Improved fire resistance and resilience
- ✓ Capacity of ecosystems to adapt to climate change
- ✓ Conservation and recruitment of old growth forest conditions and habitat for species that depend on old growth ecosystems and regional biodiversity
- ✓ Communities that rely on National Forest System lands

RECOMMENDATION 6-1

The Committee's recommendations can be summarized as follows:

1. Conserve remaining unprotected older moist forests across Matrix lands and Adaptive Management Areas.
2. Emphasize timber production that incorporates ecological forestry principles in younger age classes of moist forests across Matrix lands and available Adaptive Management Areas.[1]
3. Accelerate ecological restoration of dry forests in all land use allocations as necessary to conserve older trees, restore characteristic old forest conditions, conserve wildlife habitat, and promote forest resilience in the face of climate change and fire.
4. Raise the age to which previously harvested younger age classes of moist forests in LSRs can be managed to enhance late successional characteristics to 120 years.

[1] The committee recommends that Adaptive Management Area plan components be replaced with recommended Matrix LUA plan components, except where AMA plans direct management otherwise. The main exception is the Snoqualmie Pass AMA, which is being managed as LSR. Throughout this document, we refer to matrix and AMA lands, but these statements do not apply to any AMAs (like the Snoqualmie Pass AMA) which may have conflicting existing plan direction.

5. Accelerate ecological restoration of Moist Forest plantations to increase their resistance, resilience, and adaptive capabilities.
6. Restrict salvage logging in older moist forests, use salvage primarily as a tool to reduce fuels and facilitate development of future old forest conditions in dry forests and in LSRs, and permit variable retention salvage logging in younger age classes of moist forest in Matrix and AMAs.
7. Treat forests within Community Protection Areas to mitigate risk from fire and other catastrophic disturbance.

II. Accounting for variability in NWFP area forests

Forest stands across the NWFP area differ with respect to biophysical setting, structure, composition, function, climate, successional dynamics, vegetation response to disturbance, effects of fire exclusion, timber harvest history, management objectives, and more. The committee's overarching recommendations for the NWFP amendment are grounded in:

1. Recognizing the distinction between dry forests and moist forests;
2. Existing direction for different land use allocations; and,
3. The age of trees and stands.

Dry forests: Seasonally dry, fire prone forests that were historically relatively low biomass stands maintained by low severity, frequent fire are common east of the Cascades and in southern Oregon and northern California. These dry forests are also sometimes found embedded with the broader moist forest landscape of the western Cascades and Coast Ranges. As described in Section V below, many of these stands require restoration to meet desired conditions. Unfortunately, there are no existing mapping products that describe the exact location of dry forests at the scale of individual stands where restoration treatments are typically planned and implemented. Furthermore, not all dry forests will benefit from restoration treatments given variability in biophysical setting and past management and disturbance patterns. The committee believes the Forest Service should implement dry forest restoration treatments to stands that meet the following criteria:

1. The stand is significantly departed from historical conditions, particularly with respect to forest density, species composition, fire frequency, and fire severity;
2. Stand structure, composition, and ecological function are at risk of uncharacteristic disturbance; and
3. Silvicultural and stewardship interventions are likely to be effective at restoring and/or maintaining resilience to fire and future change.

Moist forests: Moist forests are most often found in landscape settings that receive significant precipitation, experience somewhat cooler summer temperatures than dry forests. Both historically and currently they are very productive and typically have high levels of organic matter, which they can maintain over long periods of time; these ecosystems are typically not fuel limited. As discussed below (Section III), some moist forests, particularly planted stands, can benefit from restoration treatments like variable density thinning and variable retention harvesting that diversify stand structure and composition. There is little ecological rationale for tree removal in older moist forests because these stands are well adapted to accumulation of large masses of live and dead tree biomass. As discussed below (see Sections III and IV), the committee recommends extensive silvicultural treatments in moist plantations as well as naturally regenerated moist forest within Matrix and AMAs that are designed to balance a mix of social, economic, and ecological objectives. Across the vast majority of the landscape where older, naturally regenerated moist forest is found, we recommend passive management as the primary tool to achieve desired future conditions.

Identifying dry vs. moist: The committee recommends that the Forest Service distinguish between moist and dry stands by:

1. Applying the criteria above in the course of site-specific implementation of projects to distinguish between dry forests that need treatment and all other stands;
2. Identifying stands to plant associations that are reliably indicative of differences in inherent productivity and response to disturbance;
3. Mapping environmental variables (e.g., climate water deficit) that are reliably indicative of differences in inherent productivity and response to disturbance; or,
4. Mapping overstory tree composition (e.g., dominated by ponderosa pine) that are reliably indicative of differences in inherent productivity and response to disturbance.

Age of forest stands and trees: The committee recommends that there be no timber harvest or relatively little harvest of trees of any age within moist forest stands established on or before specific stand origin date of AD 1900 (see Section III below). Stand origin date means the date at which the oldest cohort of trees in a stand established. The use of a stand origin date to limit harvest instead of the age of stands at any time is designed to allow today's young forest found across Matrix and Adaptive Management Areas to remain available for timber harvest. The committee recommends that there be no timber harvest of individual trees within dry forest stands established before specific tree establishment dates. The use of tree establishment dates in dry forest is intended to conserve old trees that are most likely to be adapted to future conditions, and to allow for the removal of trees that have contributed to degradation of resilient dry forest conditions (see Section IV). In contrast, management of younger moist forests found in Late Successional Reserves is based on the age of the stand at any given time, which is intended to allow moist stands in LSRs that have reached a certain age to be unavailable for active management. The committee recommends increasing the age limit for thinning younger moist stands in LSRs from 80 to 120 years. (see Section VII)

The committee recommends that managers identify the age of stands and trees by:

1. Using the best available scientific information (i.e., existing estimates of the age of trees or stands that make use of rigorous scientific data);
2. Making use of stand or tree characteristics that have been shown to be reliable indicators of age; or,
3. Aging a subset of representative trees.

Site specific implementation: The committee acknowledges that distinguishing between moist and dry forests, forests in different land use allocations, and forests and trees of different ages is a crude framework for management. The committee expects that site specific implementation of our recommendations will take into account the exceptional diversity in NWFP area vegetation communities as well as management objectives. Site specific considerations that may need to be accounted for in the course of implementing the Forest Plan amendment include but are not limited to:

1. Landscape context—the extent, size, shape, and configuration of patches of different forest types and biophysical settings in and around areas to be managed.
2. Co-stewardship agreements with tribes.
3. Collaboration with other agencies and stakeholder groups.
4. Differences in how forests are expected to respond to treatments.
5. The presence of current or historical non-forested areas.

6. The presence or suitability of stands for hardwoods.
7. Rare or sensitive habitats, flora, and/or fauna including designated critical habitat for federally listed species.
8. Historical disturbance regimes and future disturbance regimes.
9. Past history of land management, including stewardship by Indigenous communities.
10. Regulatory and policy requirements not explicitly acknowledged by the committee's recommendations.

III. Protection for old and advanced mature moist forests across matrix lands and Adaptive Management Areas
There is a compelling need to conserve more of the currently unprotected mature and old forests in moist forest settings found across Matrix lands and Adaptive Management Areas. These forest stands are characterized by unique structural and compositional complexity and significant carbon storage. These characteristics result in the provisioning of unique ecological services that cannot be replaced in a human lifetime.

Old moist forests: Our review of the ecological literature and the professional judgment of committee members indicates that moist forests within the NWFP area that established before the year 1825 (*old forests*) characteristically have significant structural and compositional complexity and store huge amounts of carbon. Accordingly, we recommend that there be no timber harvest in moist forest stands across matrix and AMAs that were established on or before the year 1825, with exceptions for public health, safety, and cultural uses.

Advanced mature moist forests: Stands established between 1825 and 1900 (*advanced mature forests*) have less structural and compositional complexity than old forests at this time but already have developed significant complexity and accumulated large masses of carbon. Accordingly, we recommend that there be no timber harvest in moist forest stands across matrix and AMAs that were established between 1825 and 1900, unless the Forest Service articulates, using the best available scientific information, how timber harvest will serve important ecological objectives, including but not limited to:

- Managing risk of fire to critical resources including old forest stands, communities, infrastructure, or critical habitat.
- Aiding in the development or enhancement of structurally complex, late seral habitat.
- Stabilizing carbon stocks in the face of changing climate and disturbance regimes.

IV. Emphasis on timber production in young moist stands across Matrix and Adaptive Management Areas
Society's consumption of wood products continues to grow, and communities in Washington, Oregon, California, and around the country depend on the highly productive timber lands of the Pacific Northwest for wood products, employment, and a host of other benefits provided by working forests. A large portion of moist forest acreage across the NWFP area is already protected as Congressional or administratively withdrawn lands, Late Successional Reserves, and Riparian Reserves. The committee's challenge was identifying moist forest stands on Matrix and Adaptive Management Area lands that we believe warrant protection while keeping younger forest stands available for timber harvest to support community livelihoods and economies.

Goals of silviculture in younger moist matrix and AMA stands: Silvicultural activities in younger moist forest stands across matrix and AMAs should be designed to produce a sustainable supply of wood products while also accomplishing a variety of social and ecological goals including but not limited to those listed below. This approach to producing a sustainable supply of wood products while achieving social and ecological goals is often

referred to as "ecological forestry." Social, economic, and ecological goals of timber harvest in younger moist forest stands across matrix and AMAs include:

1. Conservation of and creation of diverse wildlife habitat;
2. Increasing stand and landscape scale vegetation diversity;
3. Effectively managing risk of and recovery from major disturbance;
4. Promoting diverse employment opportunities;
5. Adapting stands to future climate change threats and stressors; and,
6. Tribal co-stewardship and ecocultural restoration.

Protection of relic old trees within younger moist forest stands: The committee supports significant timber harvest in moist forest stands across Matrix and AMAs with stand origin dates between 1900 and the present day. As noted in Section II, stand origin dates should be based on the oldest cohort of trees present. However, in some cases, there may be a few trees that survived a high severity stand-replacing event or that were left after timber harvest that pre-date the oldest cohort of trees present. The committee expects that the Forest Service will retain any individual trees estimated to have established prior to the year 1900 that may be found in stands that originated between 1900 and the present day. For example, they would be used to meet tree retention goals in variable retention harvests.

Expectations for timber harvest in moist forests: The committee anticipates that timber harvest in advanced mature forests (established between 1900 and 1825) across matrix and AMAs will be relatively rare and infrequent, and will be responsive to relatively unique circumstances. Alternately, decisions about timber harvest in those mature forests will be responsive to significant changes in landscape forest conditions over the life of the plan amendment and when significant new scientific information demonstrates the ecological benefits of timber harvest in moist advanced mature forest stands. We anticipate that the age thresholds that we recommend for protection will be reviewed and revised as necessary in the course of future forest plan revisions.

V. Accelerated dry forest restoration

Resilient dry older forest conditions are at significant risk from uncharacteristic fire, drought, and insect disturbance. The committee recommends and expects that the Forest Service will implement accelerated ecological restoration of dry forest stands in Matrix, Adaptive Management Areas, and Late Successional Reserves, with priority given to dry forest stands with older trees at high risk of mortality from fire, insects or drought.

Goals of dry forest restoration: Accelerated dry forest restoration will be designed to:

1. Reduce risk of loss from fire, drought, insects, and disease of critical ecological structures, functions, and services including but not limited to water quality and wildlife habitat;
2. Mitigate risk of fire that threatens communities, infrastructure, or old-growth stands;
3. Conserve existing older trees;
4. Relink pattern-process feedbacks that restore characteristic dry forest structure, composition, and function.

Restrictions on dry forest restoration: Dry forest restoration will consist of a variety of silvicultural and stewardship techniques including but not limited to variable density thinning and reintroduction of fire (both

cultural burning and prescribed fire) appropriate for restoring characteristic older dry forest conditions. Dry forest restoration will:

1. Protect from harvest all shade tolerant trees (e.g., white and grand firs) estimated to have established on or before the year 1850;
2. Protect from harvest all shade intolerant trees (e.g., ponderosa pine) estimated to have established on or before the year 1875;
3. Ensure recruitment of older trees over time as appropriate for site conditions.
4. Reduce overall stand density, reduce ladder fuels, shift species composition from less fire and drought tolerant to more fire and drought tolerant species, and manage surface fuels.
5. Restore characteristic composition, structure, size, shape, and configuration of trees and forest habitat patches at stand and landscape scales (e.g., use of ICO-type marking guides).
6. Facilitate reintroduction of fire to maintain resilient forest conditions.
7. Provide habitat for late successional forest species to the extent feasible consistent with restoring resilient dry forest conditions and consistent with endangered species recovery plans.

Expectations for dry forest restoration: The committee recommends and expects that the Forest Service will restore ecological resilience to at least one third of extant NWFP area dry forest over the next 10 years while conserving and protecting older trees and promoting the development of future functional old-growth forest ecosystems appropriate for dry forests.

VI. Managed stand management, including plantations

A large percentage of the NWFP area has been clearcut and replanted, particularly between 1950 and 1990. These stands provide significantly less ecological function and services than older, naturally regenerated forests and likely contribute to increased risk of loss of old forest from fire and other disturbance. Planted stands require active management to help develop characteristic old forest conditions, to diversify forest stands and landscapes, and adapt stands to future change.

Goals of managed stand management: In general, management of previously harvested moist forest stands should aim to:

a) Develop complex structures and diverse composition that are at reduced risk of loss from fire, drought, insects, and disease;
b) Mitigate risk of fire that threatens communities, infrastructure, or older forest stands;
c) Increase connectivity between existing older forest;
d) Improve the ability of stands to adapt to future climate and disturbance regimes; and,
e) Increase heterogeneity of forest structure and composition and provide for diverse wildlife habitat.

The goals above should be adapted based on the location of previously managed stands. The primary purpose of management in dry forest planted stands should be ecological restoration of resilient dry forest conditions (see Section V). Moist forest stands created by previous harvest on Matrix lands and AMAs can serve multiple purposes, with one emphasis on timber production using variable density thinning and variable retention harvesting (see Section IV). In the Moist Forest LSRs, the primary purpose of management in plantations is developing complex late successional forest habitat (see Section VII).

Expectations for planted stand management: The committee expects that the Forest Service will implement silvicultural and stewardship treatments that increase diversity, structural and compositional complexity, and resilience to disturbance across at least one third of extant planted stands over the next 10 years.

VII. Modified direction for young LSR forest thinning

Current management direction restricts thinning to stands less than 80 years of age in Late Successional Reserves west of the Cascades. The committee recommends raising the age at which treatments can occur in moist younger forest LSR stands to those stands that are 120 years of age or younger in order to ensure that no opportunities to restore late successional habitat in LSRs are missed. Younger moist forest management in LSRs should generally consist of variable density thinning and reintroduction of fire as appropriate. No active management in younger moist LSR forests should be allowed unless it is designed to enhance and promote the development of older forest conditions and any other relevant Late Successional Reserve objectives, standards, and guidelines.

VIII. Salvage of burned stands

The extent of fire, including large patches of stand replacing fire, is increasing across the NWFP area. Post-fire salvage logging of burned forest when promptly implemented can help capture the economic value of dead trees and support local economies. Post-fire landscapes provide opportunities for restoration of forest composition and structure, wildlife habitat and ecosystem function. Post-fire salvage may be a useful tool for reducing future fuel loading and facilitating the development of future resilient conditions, particularly in dry forests where uncharacteristically large amounts of fuel are often left following fire. However, post-fire salvage logging, particularly in older moist forest stands that are well suited for development of significant live and dead biomass, can degrade valuable habitat and biological diversity and impair ecological functioning in these early seral habitats.

The committee's recommendations for post-fire management reflect the different potential effects of salvage given different management objectives in different forest types and land use allocations. The committee recommends that salvage in moist advanced mature and old forests be generally prohibited. Salvage in dry forests in all land allocations and in younger moist forest stands in LSRs should generally be focused on ecological objectives including but not limited to facilitating the development of future old forests, providing important post-fire habitat, retaining carbon storage on the landscape, supporting soil conservation and development, and managing fuels to effectively manage future risk of major disturbance ("fuel management salvage"). Salvage in younger forest across matrix lands and AMAs should be designed to serve multiple objectives including timber production while retaining critical biological legacies ("salvage with retention"). The committee recommends that the USFS collaborate with Tribes to develop co-stewardship agreements covering revitalization of cultural species and associated habitats following wildfire disturbances.

General prohibition on salvage in old and advanced mature moist forest: The committee recommends a general prohibition on salvage in advanced mature and old moist forest in all land use allocations, except for salvage along roads and in the immediate vicinity of homes, buildings, and other critical infrastructure. Advanced mature and old forest for the purposes of post-fire salvage is defined in the same way as advanced mature and old forest for the purpose of moist forest protection in matrix and AMAs—forest stands that originated on or before the years 1900 and 1825, respectively. Exceptions should be made in circumstances where there is a

compelling, science-based need to salvage in old and advanced mature moist forests to ensure development of future older moist forest conditions or protect existing advanced mature and old forest.

Fuel management salvage and post-fire restoration in dry forest and in younger moist forests across LSRs: The committee recommends that salvage in dry forests and younger moist forests in LSRs be focused primarily on fuel management. Fuel management salvage consists of tree removal to reduce fuels as appropriate for development of future old forest conditions. Fuel management salvage will retain all of the oldest dead trees present in burned stands, retain critical wildlife habitat, control erosion, control invasive species, and protect wetlands, riparian areas and sensitive soils.

Salvage with retention in younger moist forest across Matrix lands and AMAs: Salvage to produce timber products is an appropriate objective of salvage operations in younger stands across Matrix lands and AMAs. Younger forest is defined in the same way as younger forest for the purpose of identifying stands for active management in matrix and AMAs—forest stands that originated after the year 1900. Salvage with retention in younger moist forest in matrix lands and AMAs may remove significant tree biomass, but will retain much of the biological legacies of the previous stands, including some of the oldest most decay resistant dead trees present.

IX. Additional considerations

Amending the Northwest Forest Plan is not the only step the Forest Service needs to take to ensure that needed forest restoration occurs and that social, economic, cultural, and ecological objectives are met. We urge Forest Service leadership to work closely with regulatory agencies like the United States Fish and Wildlife Service and National Marine Fisheries Service to ensure that Section 7 consultation and other Endangered Species Act obligations are met in a timely and efficient manner that ensures conservation of threatened and endangered species and increased resilience for forests and human communities.

We strongly urge the Forest Service to take appropriate actions to remove or lower existing barriers to active management in younger stands and dry forests, especially requirements to conduct pre-disturbance surveys for survey and manage species. Conservation of the remaining unprotected older forests would effectively address the habitat needs of old-growth dependent species for which the survey and manage program was originally designed.

The Forest Service faces daunting analytical burdens imposed by court and agency interpretations of federal environmental laws. We urge the Forest Service to work diligently to streamline National Environmental Policy Act procedures to ensure that agency action can be implemented in a timely and efficient way while ensuring transparency and accountability to the public. Many of our recommendations could be read as imposing significant new analytical burdens on the agency. On the contrary, our recommendations are designed to provide direction that will make planning effective and efficient. Some of our recommendations—for instance, the shift from structure based to stand and tree age based management—may be an adjustment for Forest Service staff, but we are confident that existing agency tools, methods, and experience are adequate to implement these recommendations.

XI. Tabular summary of management recommendations

The tables below summarizes recommendations for management of different age classes (younger, advanced mature, and old) of different forest types (dry vs. moist), across different land management allocations

(matrix/AMA and LSRs). The tables below are useful primarily for visualizing how management differs as a function of age, forest type, and land management allocation. The reader is referred to the text above for specific direction.

	Forest management				
	Matrix/AMA established >1900	**Matrix/AMA established 1900-1825**	**Matrix/AMA established <=1825**	**LSR <120 years of age**	**LSR >=120 years of age**
Moist forest	A variety of silviculture, especially variable density thinning and variable retention harvest	No harvest except if there is specific ecological rationale.	No harvest	Variable density thinning and fire to enhance late successional habitat	No timber harvest
Dry forest	Dry forest restoration if needed	Dry forest restoration if needed	Dry forest restoration if needed	Dry forest restoration if needed	Dry forest restoration if needed

	Post-fire forest management				
	Matrix/AMA established >1900	**Matrix/AMA established 1900-1825**	**Matrix/AMA established <1825**	**LSR <125 years of age**	**LSR >=125 years of age**
Moist forest	Salvage with retention	No salvage	No salvage	Fuel management salvage	No salvage
Dry forest	Fuel management salvage	Fuel management salvage	Fuel management salvage	Fuel management salvage	Fuel management salvage

FOR DISCUSSION [Committee still to confirm if they intend to keep the below plan component language within the recommendations]:

EXAMPLE FOREST STEWARDSHIP PLAN COMPONENTS
All Forest Conditions and All Land Use Allocations
DC: NWFP area forests continue to play a critical and distinctive role in providing diverse forest habitats and a range of ecosystem services, including but not limited to wood products, wildlife habitat, wilderness experiences, clean water, carbon storage, and recreational opportunities.
DC: Old forest increases across each national forest unit and the major forest types found across each National Forest relative to existing conditions. A range of passive and active management strategies relink the characteristic pattern and process feedbacks that are responsible for developing and maintaining old forest across different forest types. Both natural disturbances and human stewardship provide for a wide range of

live and dead old forest structure, the successional and disturbance dynamics that are appropriate for different landscape settings, and conditions that are resilient and adaptable to future climate and disturbance stressors.
DC: National forest lands provide significant wood products to local industries and significant non-timber economic opportunities to local and regional communities. Production of wood products contributes to the socioeconomic stability of communities as well as the ecological integrity of national forest land.
DC: Timber production in Matrix in moist forest and proactive stewardship of all dry forests, creates a predictable and sustainable supply of forest products that significantly contributes to local economies and helps to maintain or grown wood processing infrastructure.
OBJ: Provide regular and predictable supply of timber outputs consistent with the principles of long-term sustained yield (and requirements of 2012 Planning Rule and National Forest Management Act), to attain the annual Probable Sale Quantity (PSQ) during the planning horizon.
OBJ: Active and passive management of mature and old growth forests will stabilize or increase the amount of old growth forest conditions present on the landscape over time relative to existing conditions during the planning horizon.
MOIST FORESTS
All Land Use Allocations - MOIST
DC: Actively managed moist forest stands make a contribution to diverse stand and landscape habitat, adaptation to future climate and disturbance regimes, and high quality, resilient forest conditions across time.
Matrix - MOIST
OBJ: In 10 years, implement silvicultural treatments (including…variable retention harvest) that increase diversity, structural and compositional complexity, and resilience to disturbance across at least one third of extant planted stands in moist forest. [Couple this with a Management Approach and Goal w/ percentage?]
STD: Timber harvest in moist old forest stands that originated prior to the year 1825 is generally prohibited, except: 1) To prevent imminent danger to people or critical infrastructure; 2) For tribal cultural uses
STD: Moist forest stands in the matrix that originated after the year 1900 shall be managed for timber production or timber harvest. A variety of silvicultural treatments shall be implemented to accomplish one or more of the following objectives: a. Generate wood products b. Increase heterogeneity of forest structure and composition; c. Improve growth and vigor of residual trees; d. Reduce likelihood of loss from fire, insects, and disease; e. Create diverse habitat, including early seral habitat; or f. Mitigate risk of fire that threatens communities or sensitive habitat
STD: Active management in Matrix shall include thinning, un-even aged management, and variable retention harvest silviculture treatments.
STD: Active management in planted stands within riparian reserves including thinning shall be implemented to achieve desired conditions for riparian reserves.
GDL: Project design should be based on adaptive learning about threats to the persistence of those stands including fire, insects, and disease.
Late-Successional Reserves - MOIST
GDL: Silvicultural treatments shall be permitted in planted stands up to 125 years of age (age at time of assessment) in Late-Successional Reserves. These treatments shall be consistent with desired conditions for late successional reserves. Variable retention harvest to create early seral habitat shall be limited to the Matrix and AMA land use allocations.

DRY FORESTS
Matrix and Late-Successional Reserves
DC: Restored seasonally dry, fire prone forests provide resilient old forest habitat and critical ecosystem services into the future.
OBJ: In 10 years, restore ecological resilience and fire-adapted landscapes in dry forests to at least one third of Matrix, LSRs, AMAs, and riparian reserves while conserving and protecting old trees and conserving and promoting the development of future functional old-growth forest ecosystems appropriate for dry forests.
STD: Seasonally dry, fire prone forests of all ages and all land use allocations shall be proactively managed to promote, restore, and/or maintain the ecological integrity of old forest conditions. Silvicultural activities in seasonally dry, fire prone forests in all land allocations shall: 1. To the extent feasible, retain all trees older than 150 as well as sufficient younger trees to provide for the recruitment of future old forest conditions; 2. Utilize silvicultural treatments to reduce stand densities, produce desired spatial heterogeneity (e.g. ICO* strategies), shift species composition to more disturbance-resilient species, and create small gaps and skips to restore historical spatial patterns; 3. Create and maintain successional heterogeneity based on local disturbance regimes and the needs of late-successional forest species; and 4. Restore the role of fire on the landscape through the use of beneficial fire and managed wildfire. **Individuals, clumps, and openings*

7. Designate and Steward Community Protection Areas

The safety and wellbeing of many communities within the NWFP area are at elevated and increasing risk from negative effects from wildland fire. In response, Congress and the USFS have provided direction regarding 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 firesheds for substantial investments under the “Wildfire Crisis Strategy” to reduce hazardous fuels around those communities most at-risk from fires. Resulting treatments span NWFP land use allocations across several WCS landscapes within the NWFP area. Designation of Community Protection Areas through the NWFP Amendment will provide added attention and direction to wildfire risk issues for all communities across the NWFP area.

For the purpose of these recommendations, the Committee referenced the Land Management Plan for the Sierra National Forest (2023), where a four level Strategic Fire Management Zone approach highlighted Community Wildfire Protection Zones and General Wildfire Protections Zones as priority areas to reduce potential adverse impacts to communities from wildfires.

Community Wildfire Protections Zones are described as: *The community wildfire protection zone encompasses locations where communities, community assets, and private land could be at 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. Within this zone, community buffer areas are measured from the structures in the community.*

General Wildfire Protection Zones are described as: *The general wildfire protection zone identifies where conditions currently put some natural resource and/or community values at high risk of damage from wildfire.*

Wildfires that start in the general wildfire protection zone can contribute to high fire risk in the community protection zone. Within this zone, high fire transmission risk from wildlands into communities is identified.

The Committee's recommendations expand upon the above description of Community Wildfire Protection Zones and General Wildfire Protection Zones and recommend the Forest Service further develop CPAs delineations based on fire analytic products and frameworks including but not exclusively Potential Operational Delineations (PODs), Potential Control Locations (PCLs), and Community Wildfire Protection Plans (CWPPs). The process and procedures for development of CPAs should involve Tribal partners and community engagement, including local governments, and a cross-boundary approach. The Forest Service should further refine the Community Protection Area concept in subsequent plan revision processes.

What's currently in the Northwest Forest Plan: This concept is not included in the 1994 NWFP.

These recommendations support:

- ✓ Improved fire resistance and resilience
- ✓ Communities that rely on National Forest System lands

RECOMMENDATIONS	
7-1	The Committee recommends the Forest Service develop Community Protection Areas (CPAs) in the immediate vicinity of communities and related infrastructure (as noted in 7-4) that are vulnerable to catastrophic disturbance from fires. The safety of people, property, and the built environment is augmented, defensible space is created, and the risk of catastrophic losses is mitigated.
7-2	The Forest Service should further refine the Community Protection Area concept in subsequent plan revision processes.
7-3	The Committee recommends the Forest Service develop CPAs based on fire analytic products and frameworks including but not exclusively PODs, PCLs, and CWPPs. The process and procedures for development of CPAs will involve Tribal partners and community engagement, including local governments, and a cross-boundary approach.
7-4	Delineation of resources included in Community Protection Areas can be revised in the course of site-specific project planning and could include but not be limited to: • Structures • Transportation infrastructure • Facilities including but not limited to communications equipment, dams, power generation, and power transmission infrastructure • Developed recreation sites such as parks or campgrounds near communities • Sacred sites, traditional ecological properties, or other areas of Tribal cultural importance
7-5	Forest stands within Community Protection Areas are actively managed for protection goals if they contribute to a high risk of catastrophic fire that threatens the built environment, and where common silvicultural techniques including thinning and prescribed fire can effectively manage risk.
7-6	Community Protection Areas will be implemented as "Lands of Specific Character", with the built environment as the strategic feature. Accordingly, this overlay would supersede other LUAs.
7-7	The Forest Service actively engages in community planning for community disaster preparedness and evacuation in areas near each respective forest.

8. Remove Barriers for Adaptive Management

Adaptive management is defined as "a structured, cyclical process for resource management decision making in the face of uncertainty and changing conditions" (USFS Adaptive Management, Monitoring, and Analysis) and is intended to provide options for land management challenges. In practice, the adaptive management concept can be realized in different ways, ranging from the highly structured management cycle through to simpler adjustment of routines within the existing rules driven by learning and observation. A full spectrum of adaptive management implementation is critical to provide for climate change adaptation. A culture of learning is critical for supporting adaptive management, and it is important to remember that it is the interaction of scientific and technical components along with social preferences that together result in successful adaptation.

Adaptive management concepts embodied in the Adaptive Management Area (AMA) LUA were groundbreaking within the original NWFP Amendment; but the extensive procedural requirements associated with the AMAs largely precluded successful implementation of active adaptive management in AMAs (Science Synthesis 2018). Barriers to successful implementation included, but were not limited to: prohibitive regulatory processes, lack of funding, lack of incentives or directives for USFS managers, and insufficient agency capacity. Furthermore, while the geographic locations of the AMAs were selected to provide associated rural communities with certainty and a pathway to economic self-sufficiency, they do not provide an effective and representative land base upon which to implement adaptive management in the manner needed to address current stressors and meet current challenges in land management and adaptation.

According to the 2012 Planning Rule, "the adaptive management framework of assessing, revising, amending, and monitoring provides a scientifically supported foundation for addressing uncertainty, understanding changes in conditions that are either the result of management actions or other factors, and keeping plans current and relevant." Consistent with the 2012 Planning Rule, the Committee strongly supports the use and implementation of adaptive management as a programmatic approach across all land use allocations and include Tribal co-stewardship and community engagement as a core to the framework. This approach should include the formal adaptive management cycle where desired and feasible (including e.g. triggers and thresholds), as well as a broader framework where adaptation is inspired by learning and observation. In a rapidly changing climate, the Forest Service must continue to learn, monitor, adapt, and experiment to achieve management objectives across the entire NWFP landscape.

What's currently in the Northwest Forest Plan: The primary direction on adaptive management is included in the NWFP S&Gs for Adaptive Management Areas (C-21 to C-22 and Section D). The S&Gs for AMAs state technical and social objectives for AMAs. The Implementation guidelines include requirements related to agencies facilitating collaborative efforts and public participation by local communities, AMA plans, and interdisciplinary technical reviews. There is also some direction on adaptive management in the Implementation section (E-13 to E-15).

These recommendations support:

- ✓ Incorporation of Indigenous Knowledge into planning, project design, and implementation and meeting the agency's trust responsibilities
- ✓ Improved fire resistance and resilience
- ✓ Capacity of ecosystems to adapt to climate change

- ✓ Conservation and recruitment of old growth forest conditions and habitat for species that depend on old growth ecosystems and regional biodiversity
- ✓ Communities that rely on National Forest System lands

The Committee recommends the following concepts for evolving adaptive management within the planning area, to be analyzed in the EIS:

RECOMMENDATIONS	
8-1	The Committee recommends the Forest Service embrace adaptive management as a broad framework across all land use allocations of the NWFP region. Key priorities for adaptive management include but are not limited to climate change resistance, resilience, mitigation and adaptation; fire adapted landscapes and communities; restoration of non-forested habitats; stewardship of mature and old forests; Tribal co-stewardship for ecocultural restoration; and ecological forestry approaches.
8-2	The USFS meaningfully includes Tribal co-stewardship and community engagement in adaptive management
8-3	A commitment to adaptive management is clear in the Record of Decision, reflecting the concerns FAC outlines in the preamble and in specific recommendations.
8-4	The USFS scales up learning from adaptive management projects to ongoing decision-making for the region and recognizes the need for monitoring to implement a broad investment in adaptive management. The USFS affirms a culture of adaptation that recognizes the adaptive management concept can be realized in different ways, ranging from the highly structured management cycle (including triggers and thresholds of 2012 PR) through to simpler adjustment of routines within existing rules driven by learning and observation. Where feasible, the USFS invests in a process for identifying thresholds and triggers and evidence from trends of key components in the region, and implements the adaptive management cycle using those thresholds, triggers, and trends.* (See also 4-10, and see Leadership Commitment) *Following the delivery of these recommendations, the Committee also intends to further discuss a recommended process for thresholds and triggers. It is a priority for the Committee that implementing such program should not become an additional barrier for doing adaptive management.
8-5	AMA plan components should be replaced with recommended Matrix LUA plan components, except where AMA plans direct management otherwise. • A broad framework of adaptive management is necessary across all LUAs of the planning region, and our recommendation to release the AMAs reflects recognition that extensive procedural requirements associated with AMAs largely precluded successful implementation of active adaptive management in AMAs. Furthermore, the AMAs do not provide an effective and representative land base upon which to implement adaptive management in the manner needed to address current stressors and meet current challenges in land management and adaptation.
8-6	Any designated LSR, riparian reserve, or existing old growth within an AMA, shall remain LSRs, riparian reserve, or managed as old growth.
8-7	For AMAs where matrix plan components are applied, include added language in the Desired Conditions to emphasize the goal of accelerated restoration, Tribal co-stewardship where desired by the Tribes, and management consistent with adaptive management priorities as outlined in in 9-1 as appropriate.

8-8	Develop a new "Adaptive Management Program" with engagement from Tribes, communities, agencies, research scientists, and interested parties to collaboratively identify core adaptive management projects and demonstration opportunities in each Forest unit across the NWFP region during Forest Plan revision process.
See **Appendix B**. Example AMA redline document. [To provide with final recommendations]	