



Tongass Land and Resource Management Plan Draft Assessment Comment

February 24, 2025

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Dear Ms. Matthews and the Tongass National Forest Planning Team -

On behalf of our members and supporters throughout Southeast Alaska and nationwide, we would like to submit the following comments in relation to the *Tongass Land and Resource Management Plan Draft Assessment*. We look forward to continuing our involvement in the Plan revision process and welcome continued opportunities for public engagement in local communities in Southeast Alaska.

The Southeast Alaska Conservation Council (SEACC), is a regional grassroots organization with over 7,000 supporters, based in Juneau, Alaska (Tlingit/Áak'w Kwáan lands). Our vision statement is guided by the stewardship traditions of the Indigenous Peoples of Southeast Alaska, the air, land and waters of the world's largest temperate rainforest are protected, and our mission is to ensure our interdependent whole endures for the next 10,000 years, by listening, learning, educating and advocating, in collaboration with diverse communities and partners.

Executive Summary

The Tongass National Forest is of importance for biodiversity, carbon sequestration, and community subsistence. Note that these themes are all interrelated and that the chapters of the assessment should maintain consistency in messaging



across chapters so that actionable decisions based on the assessment are informed by this relationship. The Tongass Land and Resource Management Plan Draft Assessment upholds a vision of maintaining healthy ecosystems by preserving intact land and water resources that sustain fish, wildlife, and forest biodiversity. The plan also highlights the deep connection between people and the land, ensuring that future generations can continue to engage in subsistence practices and recreational activities. The Tongass provides numerous essential ecosystem services, as the assessment states, which include:

- Homelands of Native Alaskans
- Subsistence—customary and traditional uses
- Temperate rainforest archipelago
- Salmon
- Recreation and scenery

We strongly support this focus and encourage the Forest Service to ensure robust protections for these values, including Indigenous knowledge and subsistence rights. Integrating these aspects consistently throughout the assessment will help safeguard the long-term sustainability and resilience of the Tongass.

The Tongass as an Indigenous Place

The Tongass National Forest is not just a landscape—it is an Indigenous place with deep cultural, ecological, and historical significance. The draft assessment rightfully acknowledges this, but it must go further in operationalizing co-stewardship and co-management with Tribes. The history of federal mismanagement, from the burning of Indigenous smokehouses to the exclusion of Tribal governance in land management, has led to mistrust that must be actively addressed.

While the draft assessment does not explicitly outline co-stewardship mechanisms, the revision process presents a crucial opportunity for the Forest Service to establish policies that formally integrate Indigenous leadership into land management. Drawing from models such as the Blackfeet Nation's co-stewardship of the Badger-Two Medicine area, the assessment should lay the foundation for long-term government-to-government agreements that enable Indigenous stewardship. To be effective, these agreements must not only honor Tribal sovereignty but also establish clear pathways for Indigenous knowledge to be treated as a co-equal source of best available science.



Recommendations:

- Ensure all Forest Service staff in the Tongass are trained in the history of federal actions that have harmed Indigenous communities, following models like the Northwest Forest Plan Amendment's education framework.
- Develop co-stewardship agreements at the request of Tribes, ensuring that Indigenous governance is embedded in forest planning, monitoring, and restoration efforts.
- Address Indigenous data and knowledge sovereignty, guaranteeing that Traditional Ecological Knowledge is used with free, prior, and informed consent.

Designated Areas

The Tongass contains 19 congressionally designated Wilderness areas, 20 Land Use Designation II areas, 31 river segments identified for Wild and Scenic designation, and various other protected lands. While the draft assessment acknowledges these designations, it must also evaluate additional areas for protection under updated Wilderness and Roadless Area inventories. Given the shifting political landscape, the risk of losing protections for roadless areas remains high.

The assessment must strengthen management standards for recommended Wilderness, ensuring that incompatible uses such as mechanized and motorized activities do not degrade the wilderness character of these areas. The Forest Service must also integrate Indigenous subsistence areas within the designated areas framework, ensuring that cultural and ecological values are protected.

Recommendations:

- Conduct a full Wilderness Inventory and Evaluation, ensuring that all roadless areas over 5,000 acres are considered for protection.
- Strengthen management of recommended Wilderness areas by prohibiting incompatible uses that degrade their ecological integrity.
- Expand Wild and Scenic River protections, incorporating updated ecological data and climate resilience considerations.

Timber Resources

Timber management in the Tongass must be reassessed to reflect ecological and economic realities. The draft assessment's claim that only 4% of the total forest and 8% of productive forest has been harvested overlooks the disproportionate impact on



critical lowland old-growth stands. Over two-thirds of the highest-value old-growth forests have already been logged, leaving only 1.3% of the forested area intact. These ecosystems are irreplaceable in human timescales and must be protected from further degradation.

From an economic perspective, the Forest Service's timber program has operated at a net loss for decades, averaging a \$44.5 million annual deficit. The assessment must account for the true cost of logging, including road-building expenses and long-term ecological damage. Additionally, the transition to young-growth harvesting must be carefully planned, ensuring that processing infrastructure and workforce training are in place before shifting away from old growth.

Recommendations:

- Prioritize ecological integrity by ensuring that old-growth habitats maintain complex canopy structures and ensure that second growth rotation periods allow for the development of important ecological functions.
- Address the economic realities of the Tongass timber industry, including its financial losses and negative impacts on fisheries and tourism.
- Expand co-management strategies for culturally significant tree species like yellow-cedar, ensuring Indigenous governance in forest restoration efforts.

Subsistence

Subsistence practices are central to the cultural and food security of Indigenous and rural communities in Southeast Alaska. The assessment acknowledges the importance of subsistence but lacks specific strategies to ensure its protection. Declining salmon and deer populations, habitat fragmentation, and climate change all pose serious threats to traditional harvest practices.

The assessment must explicitly define how the Forest Service will integrate Indigenous knowledge into subsistence management. Past logging practices have disrupted fish and wildlife populations, and legacy impacts remain unaddressed. The final plan must outline clear habitat restoration goals, increase monitoring of at-risk species, and formally recognize Indigenous stewardship of subsistence resources.

Recommendations:

- Strengthen habitat protections for subsistence species by expanding watershed restoration and fish passage improvements.



- Recognize Indigenous subsistence management practices as a foundation for future conservation efforts.
- Establish co-management agreements for subsistence areas, ensuring Tribal leadership in decision-making.

Carbon Stocks

The Tongass is one of the world's most important carbon sinks, storing approximately 914.5 teragrams of carbon. However, the draft assessment underestimates the long-term impacts of logging on soil carbon loss. While the report states that carbon stocks have increased over the past two decades, this trend falls within the margin of error, raising questions about its statistical significance. More rigorous analysis is needed to assess how timber extraction and climate change may affect soil carbon retention over time.

Beyond analysis, the assessment should explore economic mechanisms that incentivize carbon retention. Alaska's 2023 passage of SB48, which authorizes participation in carbon offset programs, provides a clear pathway for incorporating carbon markets into Tongass management. Protecting carbon-rich old-growth forests is not just an ecological necessity—it is an economic opportunity.

Recommendations:

- Conduct a more rigorous analysis of soil carbon loss due to logging, recognizing that soil carbon takes centuries to recover.
- Integrate carbon markets and conservation incentives into Tongass land management, reducing reliance on extractive industries.
- Link carbon sequestration goals with subsistence and habitat restoration, ensuring a holistic approach to climate resilience.

Socioeconomic Conditions

The economic well-being of Southeast Alaska is closely tied to the health of the Tongass. While the assessment presents data on employment and industry trends, it does not use this data to make a case for changes in forest management. Indigenous economies, which have been resilient for millennia, must be prioritized in future planning efforts.

The assessment must go beyond generic economic data and engage directly with Indigenous and rural communities to develop place-based economic strategies. Timber



has become an increasingly small portion of the region's economy, contributing only 0.6% to the state's workforce earnings, while tourism and fisheries account for over 20%. Any future economic strategy must acknowledge this shift and invest in industries that align with ecological conservation.

Recommendations:

- Develop co-stewardship agreements that include workforce development and Tribal economic opportunities.
- Support Indigenous-led conservation economies, ensuring that federal funding supports sustainable industries.
- Address rural community resilience by integrating climate adaptation into economic planning, ensuring long-term sustainability.

Drivers, Stressors, and Climate Change

Alaska is experiencing rapid ecological shifts due to climate change, which exacerbates existing stressors on the Tongass such as habitat degradation, declining fish populations, and disruptions to subsistence resources. Warming temperatures, altered precipitation patterns, and increased extreme weather events are reshaping the landscape, creating cascading effects that impact forest health, wildlife, and the communities that depend on the Tongass. These changes demand a management approach that moves beyond isolated issue-based solutions and instead embraces a multivariable framework capable of addressing the complex and intersecting challenges of climate change, timber management, carbon sequestration, and Indigenous co-stewardship.

To this end, we strongly encourage the Forest Service to implement a situational model and results chain derived from the *Open Standards for the Practice of Conservation*. Providing a situational model and results chain will give a foundation for input across Tribal governments, community stakeholders, and will give a foundation that integrates climate drivers with ecological and socioeconomic stressors, ensuring that mitigation and adaptation strategies are responsive to the dynamic challenges facing the Tongass. This framework would allow the Forest Service to assess how climate-driven stressors, such as changing hydrology, and shifting species distributions, interact with land management decisions such as timber extraction and subsistence resource management. By linking these elements through a structured situational model and results chain, the Forest Service can move toward proactive,



data-driven decision-making that balances ecological resilience with community and economic needs.

The framework we propose would incorporate three key elements:

1. Situational Modeling of Climate Drivers and Stressors

- Establish a system for mapping climate-related threats and their interactions with other environmental and economic factors.
- Identify stressors such as increased landslides, ocean acidification, and their compounded impacts on salmon runs, traditional harvesting, and forest productivity.
- Link these models with timber planning, carbon stock projections, and conservation targets to ensure that management strategies account for climate variability.

2. Results Chain for Actionable Strategies

- Develop decision pathways that connect identified stressors with measurable mitigation or adaptation actions, ensuring that management strategies are rooted in both best available science and Indigenous knowledge.
- Ensure co-stewardship agreements with Tribes are embedded in climate resilience planning, reinforcing Indigenous land management expertise in mitigating climate impacts.

3. Integration Across Forest Assessments

- Ensure that climate adaptation strategies are not siloed based on an individual department's primary expertise, but include the full range of expertise needed for the assessment across thematic elements.
- Establish cross-sectoral partnerships, leveraging Indigenous and community knowledge for more effective implementation.

By implementing a comprehensive, integrative framework, the Forest Service can shift from reactive management to proactive, science- and Indigenous knowledge-based decision-making that sustains the Tongass as a climate-resilient landscape for generations to come.

The draft assessment lays the groundwork for improved forest management but must be strengthened to ensure long-term ecological integrity, Indigenous co-stewardship,



and economic sustainability. By formalizing co-stewardship agreements, expanding conservation areas, and integrating Indigenous knowledge into forest planning, the Tongass can serve as a model for sustainable management.

A final assessment that prioritizes Indigenous autonomy, subsistence protections, and climate resilience will not only be more just in its recognition of the deep cultural and ecological significance of the Tongass but will also ensure that it remains a thriving, life-sustaining forest for future generations.

2025 Tongass Land and Resource Management Plan Draft Assessment Comments

The Tongass as an Indigenous Place

The Tongass National Forest Draft Assessment dedicates an entire section to the Tongass as an Indigenous Place, and while we appreciate that, and are encouraged to see the Forest Service acknowledging past injustices such as the burning of smoke houses and villages throughout Southeast Alaska, we do have several recommendations that we will outline below.¹ We urge the agency to keep this section and to verify with story holders in communities to confirm accuracy. It must be noted that there is a history of controversy over the management of the Forest, which has led to inconsistent and often maladapted land management direction that has precluded proactive stewardship of the Tongass and its resources. Given the importance of the Tongass to our organization, the Indigenous communities that depend on its ecological integrity for subsistence and other uses, to all Alaskans, and indeed the rest of the nation, it is important to get the revision of the Tongass forest plan right.

While the draft Assessment does not address co-stewardship and co-management directly, the Assessment process does provide the Forest Service with the opportunity to lean into these concepts. Identifying gaps in agency capacity, areas of interest from Tribes regarding co-stewardship/management opportunities, and the tools that facilitate joint management of natural resources are important steps that the Final Assessment report should take to build the foundation for plan components that center Indigenous perspectives in the development and implementation of

¹ U.S. Forest Service, *The Tongass as an Indigenous Place Draft Assessment*, December 2024, p. 27.
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221271.pdf



co-stewardship of the lands now known as the Tongass National Forest. We are eager to work with the Forest Service to achieve this objective.

The Tongass National Forest has a unique and significant relationship with the indigenous people of Southeast Alaska, including the Tlingit, Haida, and Tsimshian, whose presence in the area spans over 10,000 years. These indigenous communities have a deep connection to the land, which is integral to their cultural practices, subsistence lifestyles, and spiritual beliefs. The Forest Service is required to encourage participation by Tribes and Alaska Native Corporations in the planning process, seeking their input on native knowledge, land ethics, cultural issues, and sacred sites. Indigenous people view the Tongass as their traditional homelands and have historically practiced stewardship of the land, emphasizing sustainable use and reciprocal respect for natural resources. The relationship is characterized by a need for co-stewardship and co-management to ensure that Indigenous perspectives and priorities are integrated into forest management decisions.

In recent decades, the Forest Service and other federal agencies have taken steps to center Indigenous co-stewardship and co-management of federal natural resources. As the Forest Service's capacity to address mission critical needs declines, co-stewardship and co-management represent important opportunities to not only address agency capacity limitations but also honor Tribal sovereignty and the federal Trust responsibility. There are historic and on-going examples of co-stewardship and co-management from which to draw important lessons to inform the revised forest plan. There are plan components, standards, and desired conditions outlined in the Helena-Lewis and Clark National Forest 2021 Land Management Plan as it pertains to the co-management and co-stewardship with the Blackfeet Nation regarding the Badger-Two Medicine area located in northwestern Montana. Such examples explicitly state that as a desired condition, the:

“Badger Two Medicine is a sacred land, a cultural touchstone, a repository of heritage, a living cultural landscape, a refuge, a hunting ground, a critical ecosystem, a habitat linkage between protected lands, a wildlife sanctuary, a place of solitude, a refuge for wild nature, and an important part of both tribal and nontribal community values. It is important to the people who rely upon it, critical to the wild nature that depends upon it, and has an inherent value and power of its own.”²

² U.S. Forest Service, *Helena-Lewis and Clark National Forest, 2021 Land Management Plan, Chapter 3, Geographic Area Direction*, p. 185-186.
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd114.8266.pdf



There are other standards outlined in the Helena–Lewis and Clark National Forest 2021 Land Management Plan pertaining to the Badger–Two Medicine area and the Blackfeet Nation, which include:

*“o1 Management activities in the Badger Two Medicine shall be conducted in close consultation with the Blackfeet Nation to fulfill treaty obligations, and the federal Indian trust responsibility. Project and activity authorizations shall be protected and honor Blackfeet reserved rights and sacred land. The uses of this area must be compatible with desired conditions and compatibility shall be determined through **government to government consultation** [emphasis added].*

o2 Management activities shall accommodate Blackfeet tribal member access to the Badger Two Medicine for the exercise of reserved treaty rights, and enhance opportunities for tribal members to practice spiritual, ceremonial, and cultural activities.”³

Furthermore, there are other examples that the Forest Service is adopting in relation to tribal co–stewardship and co–management. In July of 2024, a Federal Advisory Committee submitted recommendations to the Northwest Forest Plan Amendment, which were largely incorporated in their Draft Environmental Impact Statement released in November of 2024.⁴ Below we detail some of the standards, guidelines, goals, and objectives that might also be applicable to the Tongass National Forest Plan Revision, particularly as it relates to putting trust responsibilities into effect and delivering authority to Indigenous leaders.⁵

- **1–20, Desired Condition:** “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.”
- **1–21, Desired Condition:** “The data shared according to Tribally approved protocols will assist in fostering co–stewardship, collaborative

³ Ibid.

⁴ Federal Advisory Committee. *Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service*, July 2024.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf

⁵ Federal Advisory Committee. *Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service*, July 2024.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf



arrangements, and cooperative agreements to fulfill related mutual goals.”

- **1-27, Desired Condition:** “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.”
- **1-31, Desired Condition:** “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.”
- **1-38, Objective:** “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.”
- **1-42, Objective:** “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.”



- **1-66, Standard:** “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.”

The revised forest plan, all Assessments, and indeed all land management the Forest Service conducts on the Tongass National Forest must address the history, needs, and concerns of the Native People who call the Tongass home.

The main challenges faced by Alaska Native tribes, as highlighted in this draft Assessment, include:

1. **Historical Trauma and Dispossession:** The creation of the Tongass National Forest and other federal actions led to the dispossession of indigenous lands without consent or compensation, causing generational trauma and loss of traditional territories. The revised forest plan should acknowledge and seek to address this trauma and dispossession.
2. **Inadequate Consultation:** Tribes often experience inadequate and sometimes disrespectful consultation processes with federal agencies, including the Forest Service, leading to a lack of meaningful input in decision-making that affects ancestral lands and resources. The revised forest plan must not repeat the mistakes of the past and should utilize plan components to establish meaningful substantive and procedural requirements that center Indigenous needs and perspectives in future interactions with the Forest Service.
3. **Climate Change:** Climate change poses significant threats to subsistence resources, traditional practices, and community safety. Stressors include warming stream temperatures, changing precipitation patterns, increased landslides, and the die-off of yellow cedar. The revised plan must address these stressors through the use of plan components tailored to each stressor and its effects on Indigenous uses of the land and resources.
4. **Resource Management Conflicts:** Industrial-scale logging, mining, and other resource extraction activities have historically damaged subsistence habitats and cultural sites. There is also Tribal concern regarding second-growth timber planning and the impacts of tourism that must be addressed in the revised plan.



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5. **Access to Cultural Resources:** Tribes face challenges in accessing forest resources for cultural uses, particularly cedar for totem poles and canoes. The bureaucratic process and high costs of harvesting suitable trees further complicate access. These are challenges that must be addressed in the revised plan.
6. **Food Security and Sovereignty:** Ensuring food security and sovereignty is a major concern for Alaska Tribes, including a need to protect traditional hunting, fishing, and gathering areas. Many Tribes believe that the legal term “subsistence” is inadequate to describe their cultural lifeways. The revised plan should better describe the breadth and depth of Tribal uses of natural resources on the Forest, and should manage for those resources beyond a mere “minimum” level: traditional forest resources should be plentiful and robust.
7. **Economic and Workforce Development:** There is a need for coordinated workforce development and economic opportunities that align with Tribal values and needs. This includes local hiring preferences, training centers, and support for Tribal businesses.
8. **Infrastructure and Deferred Maintenance:** Aging infrastructure, such as roads and facilities, affects access to subsistence use areas. Tribes also face challenges in taking over management of underutilized facilities and ensuring proper maintenance. The revised plan should include Management Approaches and other plan components that assist Tribes in the co-stewardship of such infrastructure at Tribal request.
9. **Vandalism and Theft:** Increased exposure of sacred sites has led to vandalism and theft of cultural resources, creating a tension between the sharing of Indigenous Knowledge for protection and keeping sites confidential. The revised plan must include plan components that address this tension.
10. **Trust and Relationship Building:** Building trust with federal agencies is difficult due to the federal government’s history of broken promises, political changes, and high staff turnover. Alaska Tribes seek long-term, respectful relationships with consistent engagement and understanding of their cultural context. The revised plan can take steps to rebuild trust with Tribes by providing for the development of co-stewardship agreements and other mechanisms at the request of Tribes.



Addressing these challenges requires meaningful Government-to-Government consultation, co-stewardship, and integration of Indigenous Knowledge and priorities into land management practices as embodied in the revised plan.

The Tongass as an Indigenous Place Assessment also highlights the historical relationship, and potential future relationship, between the Tongass National Forest and the Indigenous people of Southeast Alaska. Important considerations discussed in the Assessment report that should be carried forward into the Need for Change and revised plan include:

1. **Historical Connection:** The Tlingit, Haida, and Tsimshian people have lived in the area now known as the Tongass National Forest for over 10,000 years, with a deep cultural, spiritual, and subsistence connection to the land.
2. **Stewardship and Management:** Indigenous communities have historically practiced sustainable stewardship of the Tongass, emphasizing respect for natural resources. They seek co-stewardship and co-management roles in forest management to ensure their perspectives and priorities are integrated into the revised forest plan and all management going forward.
3. **Cultural Significance:** The Tongass is considered the traditional homelands of these indigenous groups, with numerous sacred sites, traditional harvesting areas, and culturally significant resources like cedar trees, salmon, and deer.
4. **Food Security and Sovereignty:** Protecting traditional hunting, fishing, and gathering areas is crucial for the food security and sovereignty of indigenous communities. This includes managing deer habitat and restoring anadromous streams.
5. **Climate Change:** Climate change poses significant threats to the Tongass ecosystem, affecting subsistence resources and traditional practices. Tribes have developed climate adaptation plans and seek proactive management strategies.
6. **Consultation and Trust:** Tribes emphasize the need for early and meaningful consultation in all management and project planning within their traditional territories. Building trust and understanding the historical context of federal policies and their impacts on indigenous communities are essential.



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7. **Cultural Use Wood:** Access to cultural use wood, particularly cedar for totem poles and canoes, is a top priority. Tribes seek a long-term management plan and funded harvest program to meet current and future cultural needs.
8. **Economic and Workforce Development:** Tribes and Alaska Native Corporations (ANCs) prioritize coordinated land management, workforce development, and economic opportunities that align with their cultural and community values.

These points underscore the importance of integrating Indigenous Knowledge, priorities, and co-stewardship into the management of the Tongass National Forest. While a full complement of plan components can and should center these perspectives in the revised plan, co-stewardship agreements between Tribes and the Forest Service, entered into at Tribal request, represent perhaps the best way to achieve Tribal desired outcomes and to honor the federal Trust responsibility owed to Tribes. Co-stewardship agreements are crucial for Tribes for several reasons:

1. **Cultural Preservation:** Co-stewardship allows Tribes to actively participate in the management of their traditional homelands, ensuring that cultural practices, sacred sites, and Traditional Ecological and Indigenous Knowledge are respected and preserved.
2. **Sustainable Resource Management:** Tribes have practiced sustainable stewardship of the Tongass for millennia. Co-stewardship agreements enable the braiding of Traditional Ecological Knowledge (TEK) with western management practices, promoting the health and sustainability of the forest ecosystem and its associated human communities.
3. **Food Security and Sovereignty:** Through co-stewardship in land management decisions, Tribes can better protect and manage subsistence resources and First Foods such as deer, salmon, and botanical resources that are vital for Tribal food security and cultural practices.
4. **Climate Change Adaptation:** Co-stewardship agreements allow Tribes to implement proactive climate adaptation strategies, address the impacts of climate change on their traditional resources, and ensure the resilience of their communities. Moreover, co-stewardship agreements can integrate Tribal climate adaptation plans and resilience strategies.
5. **Economic Opportunities:** Co-stewardship agreements can create economic opportunities for Tribes through local hire preferences, workforce development,



and the management of tourism and other commercial activities that align with Tribal cultural values.

6. Building Trust and Relationships: Co-stewardship fosters a collaborative relationship between Tribes and federal agencies, building trust through mutual respect, shared decision-making, and consistent engagement. Rebuilding these relationships is essential.
7. Legal and Policy Advocacy: Co-stewardship agreements provide a platform for Tribes to advocate for their rights and priorities in land management policies, ensuring that their voices are heard, and their needs are addressed.
8. Youth and Community Engagement: These agreements can support programs that engage tribal youth and community members in stewardship activities, fostering a sense of ownership and responsibility for their traditional lands.

Overall, co-stewardship agreements are essential for empowering Tribes to protect their cultural heritage, manage their natural resources sustainably, and ensure the well-being of their communities and the entire Tongass National Forest for future generations. The revised forest plan should include plan components that emphasize the use of co-stewardship agreements to better achieve the desired conditions set forth in the plan, which themselves should reflect Tribal priorities in addition to other multiple use objectives.

In multiple subsections of The Tongass as an Indigenous Place Draft Assessment, including, but not limited to, the subsections on “Contemporary Challenges and Adaptation”, “Inadequate Consultation”, and “Information Needs” the issue of access to free and continuous knowledge sharing is brought to attention. The lack of trust in Forest Service entities by Tribes is addressed in “Inadequate Consultation” is a critical point of focus.⁶ This issue should be elaborated on by identifying how The Forest Service will address and protect data and knowledge sovereignty of Indigenous ways of knowing. We must see an effort towards improving the government-to-government trust by enforcing structures that protect Indigenous Knowledge sovereignty and achieve *earned* data sharing. Recommendations to follow.

For a chapter that focuses on Indigenous place, culture, and protocols, it is important to improve the structure to better serve community members with limited capacity. The current formatting obstructs the audience from seeing the Forest

⁶ U.S. Forest Service, *The Tongass as an Indigenous Place Draft Assessment*, December 2024, p. 28.
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221271.pdf



Service's holistic response. Topics are isolated and difficult to navigate between. Sections are brought up briefly, lacking reference to other chapters where they may be discussed in further detail and attention. Citations and cross-referencing with in-document links would allow for more efficient processing of the materials and make it easier for community members to develop contextual feedback.

History of Government Actions Regarding the Tongass National Forest

In reference to “The Burning of Smokehouses and Fish Camps (1930s-1960s)”⁷ the Forest Service should require that all Forest Service staff working in the Tongass are knowledgeable about these histories before assuming innate trust and free consultation from Tribes.

A combination of the sections covering historical harms and the current state of tribal rights should be used to develop a plan, with deadlines, of how the Forest Service will train staff to understand their responsibilities to government-to-government relationships with Tribes. The Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service contains recommendations that should be adapted for Southeast Alaska, including:⁸

- **1-11 Desired Condition:** “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.”(p. 10)
- **1-38 Objective:** “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

⁷ U.S. Forest Service, *The Tongass as an Indigenous Place Draft Assessment, December 2024*, p. 27.
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221271.pdf

⁸ Federal Advisory Committee. *Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service*, July 2024, 10.
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf



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.” (p. 13)

Ongoing Challenges to Tribal Relations

In order to improve the government-to-government trust between Tribes and the Forest Service and create an avenue towards earned sharing of data and knowledge, the Forest Service must address the importance of data and knowledge sovereignty for Indigenous communities. ‘Data Sovereignty’ is defined by the University of Arizona Native Nations Institute as, “the right of a nation to govern the collection, ownership, and application of its own data. It derives from tribes' inherent right to govern their peoples, lands, and resources.”⁹

Precedent of acknowledging Alaska Native knowledge sovereignty is set. The Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service details how to practically put these trust responsibilities into effect and deliver authority to Indigenous leaders.¹⁰

- “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.”
- **1-20, Desired Condition:** “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.”

⁹ The University of Arizona. (n.d.). *Indigenous data sovereignty and governance*. Native Nations Institute.

<https://nni.arizona.edu/our-work/research-policy-analysis/indigenous-data-sovereignty-governance>

¹⁰ Federal Advisory Committee. *Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service*, July 2024, p. 8.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf



- **1-21, Desired Condition:** “The data shared according to Tribally approved protocols will assist in fostering co-stewardship, collaborative arrangements, and cooperative agreements to fulfill related mutual goals.”
- **1-27, Desired Condition:** “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.”
- **1-31, Desired Condition:** “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.”
- **1-38, Objective:** “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.”
- **1-42, Objective:** “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.”

- **1-66, Standard:** “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.”

The *Chugach National Forest Land Management Plan: Final Environmental Impact Statement – Volume 1 (2019)* also includes a statement on the importance of acknowledging the Forest Service history of exploiting Indigenous Knowledge for settler land management purposes.¹¹

- “The Forest Service recognizes its trust responsibilities and unique legal relationship with affected Alaska Native peoples and that the knowledge and advice of the indigenous people, with regards to cultural and natural resources as well as native knowledge, land ethics, cultural issues and sacred and culturally significant sites, are critical components in proper land management practices. The Forest Service also recognizes that these responsibilities are best met through formal consultation and collaboration with Alaska Native Tribes and Alaska Native Corporations.”

Further examples of Indigenous data and knowledge sovereignty already implemented into government protocols, making space for proper co-management, include, but are not limited to:

- **ILO Convention No. 169** (formally known as the Indigenous and Tribal Peoples Convention, 1989): A key international legal instrument aimed at protecting the rights of indigenous and tribal peoples.¹² It was adopted by the International Labour Organization (ILO) as a revision of the earlier Indigenous and Tribal Populations Convention, 1957 (No. 107). The Convention recognizes the distinct

¹¹ U.S. Forest Service, *Chugach National Forest Land Management Plan Final Environmental Impact Statement Volume 1: Chapters 1 through 4, Appendix A and B, Maps*, 2019, p. 116.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd658678.pdf.

¹² *Understanding the Indigenous and Tribal Peoples Convention, 1989 (No. 169)*. International Labour Office, Geneva. (2013).

https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_norm/@normes/documents/publication/wcms_205225.pdf



social, cultural, economic, and political conditions of indigenous and tribal peoples. It establishes their rights to self-identification, consultation on matters affecting them, participation in decision-making, and control over their own development priorities. It also addresses issues such as land rights, cultural preservation, education, and non-discrimination¹³. Convention No. 169 is binding only on countries that ratify it (the United States has *not* ratified). However, its principles have influenced broader international frameworks, including the UN Declaration on the Rights of Indigenous Peoples (2007), and have been used in domestic and international legal cases to protect indigenous communities' rights.¹³

- USAID also sets a precedent for government engagement with Indigenous Peoples in their “Policy on Promoting the Rights of Indigenous Peoples (PRO-IP): a policy implemented by the United States Agency for International Development (USAID) that aims to ensure Indigenous Peoples are actively involved in the design, implementation, and monitoring of development projects that affect them, prioritizing their self-determined development goals and safeguarding against potential harm by fully engaging with Indigenous communities throughout the program cycle”.¹⁴
- How to Protect Indigenous Knowledge and Creative IP From Exploitation by the University of Melbourne¹⁵
- Indigenous/Traditional Knowledge & Intellectual Property: Examples of Use and Misuse of Indigenous Knowledge by the Duke University School of Law¹⁶

Capacity Building/ Management Approaches

In *Voices for the Future: The vision for the Tongass National Forest from Southeast Alaska voices*, the “Top Priorities” section shows Co-Stewardship as the 7th ranked, compared to Subsistence/ Traditional Ways of Life as 2nd ranked, in order of priority.¹⁷

¹³ General Assembly of the United Nations. (2007, September 13). *United Nations Declaration on the Rights of Indigenous Peoples*. United Nations.

https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

¹⁴ Source currently out of service due to the Trump administration pause on US foreign aid.

¹⁵ *How to Protect Indigenous Knowledge and IP*. The University of Melbourne. (2023, October 2). <https://study.unimelb.edu.au/study-with-us/professional-development/blog/how-to-protect-indigenous-knowledge-and-creative-ip-from-exploitation>

¹⁶ *Indigenous/Traditional Knowledge & Intellectual Property*. Duke Law. (n.d.).

<https://web.law.duke.edu/cspd/itkpaper3/>

¹⁷ Forest Service, The U.S. Department of Agriculture. *Voices for the Future: The vision for the Tongass National Forest from Southeast Alaska voices*, 2024, 13.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1218814.pdf



However, because Indigenous communities cannot rely on the Forest Service to properly steward their lands for traditional use, subsistence cannot exist without co-stewardship and co-management set as a top priority. Tribal workforce development should be a core part of agency activities and contracting. Likewise, expanding programs that engage Tribal youth in co-stewardship of the Tongass and management activities such as restoration, research, and building recreation infrastructure ensures that the next generation of stewards are ready to implement the Seventh Generations Principle. Therefore, the Draft Assessment section on “Capacity Building/ Management Approaches” is where we should see a commitment to supporting co-stewardship in order to allow for the Indigenous-led development of subsistence practices and traditional ways of life. We should see specific commitments by the Forest Service to prioritize capacity building for Indigenous-led management. Examples for how to do so are detailed in the Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service.¹⁸ Suggestions such as:

- **1-5, Desired Condition:** “The Forest works with Tribes to determine the Tribal organizational capacity needed to engage in collaboration, coordination, and consultation with the Forest Service, and works with Tribes to identify sources of funding for Tribal organizational capacity development.”
- **1-6, Desired Condition:** “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.”
- **1-64, Standard:** “The Forest shall work 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.”
 - This support of Tribal-led authority over management of lands, specifically in regard to damage due to recreation, speaks to the concern of community members in the Tongass who are speaking up about tourism industry impacts. (referring to Voices for the Future¹⁹)

¹⁸ Federal Advisory Committee. *Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service*, July 2024.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf

¹⁹ Forest Service, *The U.S. Department of Agriculture. Voices for the Future: The vision for the Tongass National Forest from Southeast Alaska voices*, 2024.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1218814.pdf



- **1-81, Guideline:** “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 offering of a steady to increasing packaging of contracts and agreements, 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.”
- **1-96, 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.”
- **1-98, Goal:** “The Forest Service works 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.”
- **2-9, Guideline:** “... and the offering of an increasing percentage of contracts and agreements, for associated forest stewardship, construction, fire management, and wildlife and vegetation monitoring to locally owned or operated businesses, minority-owned businesses, Tribes, and organizations.”

Designated Areas

As the Draft Assessment points out, the Tongass National Forest has a total of nineteen congressionally designated Wilderness areas; twenty Land Use Designated II's, which were designated to maintain the unmodified natural environment of these areas, retaining their wildland character in perpetuity; two non-wilderness National Monuments; twelve established Research Natural Areas; thirty-four Special interest areas with unique features and values; two Experimental Forests, and thirty-one river segments totaling 557 miles identified as suitable for Wild and Scenic designation in the Tongass. The Forest Service must carry these designations forward from the draft assessment and into the forthcoming Needs for Change document, yet we believe that there are other lands and waters that should also be considered.

I. Wilderness Inventory and Evaluation

As part of the Forest Plan revision process, the Tongass will be evaluated to determine if there is additional land suitable for inclusion in the National Wilderness Preservation System and determine whether to recommend any such lands for wilderness designation.



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The Forest Service Chapter 70 directives as outlined under the National Forest Management Act of 2012, instruct the Forest Service to inventory all the areas under its jurisdiction for wilderness characteristics, and to decide through the planning process whether to manage areas which contain those characteristics for preservation of their wilderness value. This is important for several reasons. First, truly wild areas are diminishing at a rapid rate. Habitat fragmentation, human geographic expansion, and resource development are all taking a toll on large open spaces in Alaska. Secondly, large areas of undeveloped land are critical to maintaining healthy ecosystems, aid in the recovery of endangered species and are key in the fight against climate change, while also serving as critical bastions of habitat for a myriad of species in the Tongass National Forest.²⁰ Research suggests that protecting large forests from deforestation and disturbance is one of the best things humans can do to promote carbon sequestration, and that “forests least affected by human activity have the highest conservation value in terms of the range of ecosystem services they provide.”²¹ Another reason is that as more people seek out solitude and outdoor recreation, existing wilderness areas are being used more, especially during certain months of the year. They have more visitors, and the increased use is having a greater impact. This trend is only expected to continue²² and means that protecting additional areas becomes even more important, particularly on the Tongass National Forest as the cruise ship industry has been rapidly expanding its operations in Southeast Alaska over the last several decades.

Pursuant to the Wilderness Act, a wilderness area “has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition.”²³ All areas of roadless land within the Tongass National Forest comprising more than 5,000 acres must be inventoried as part of the Chapter 70 process. The directives also require the Forest Service to include in its inventory

²⁰ Di Marco, M., Ferrier, S., Harwood, T.D. et al. Wilderness areas halve the extinction risk of terrestrial biodiversity. *Nature* 573, 582–585 (2019), available at <https://www.nature.com/articles/s41586-019-1567-7>

²¹ See Potapov et al, The Last Frontiers of Wilderness: Tracking Loss of Intact Forest Landscapes from 2000–2013, *Science Advances Magazine*, Vol. 3, No. 1, January 13, 2017, available at <http://advances.sciencemag.org/content/3/1/e1600821.full>; see also Forests and Carbon Storage, Ryan et al, available at <https://www.fs.usda.gov/ccrc/topics/forests-carbon>

²² See White et al, Federal Outdoor Recreation Trends: Effects on Economic Opportunities, US Department of Agriculture, November 2016, available at https://www.fs.fed.us/pnw/pubs/pnw_gtr945.pdf

²³ P. L. 88–577 (16 U.S.C. 1131–1136). Sec. 2 (c) (3) S.4 – 88th Congress (1963–1964): An Act to establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes." *Congress.gov*, Library of Congress, 3 September 1964, <https://www.congress.gov/bill/88th-congress/senate-bill/4/text>.



“[a]reas contiguous to an existing wilderness, primitive areas, administratively recommended wilderness, or wilderness inventory of other Federal ownership.”²⁴ At the end of the Forest Planning process, the Forest Service should have an updated inventory of wilderness characteristics for every area which is either greater than 5,000 roadless acres, or which is smaller but adjacent to existing protected areas or areas recommended for protection. Some areas, like Inventoried Roadless Areas, should be recommended to Congress as wilderness unless circumstances have changed significantly since they were designated. Of the remaining roadless areas, some will be carried forward into wilderness recommendation, and others will remain unrecommended. We believe these unrecommended roadless areas should still be managed to protect their values..

The Forest Service has the benefit of learning from the other forests in the United States that have already conducted wilderness inventory and evaluation as a part of their plan revisions with mixed results. There have been thematic successes, and areas where each forest could have improved the process.

Forests have more success when they seek public input more often than legally required. Specifically, the Gila National Forest in New Mexico held a monthly check-in on the plan for stakeholders once the Notice of Intent in the Federal Register was published initiating a Draft Environmental Impact Statement, and other forests have been good about holding longer technical meetings where input from the public can be both more specific and in-person. We suggest that the Forest Service do similar types of outreach with the public. Additionally, we appreciated the use of an interactive mapping tool that many National Forests employed during the Assessment Phase and while seeking input on a Draft EIS, which allowed members of the public to draw polygons on a map of the forest and explain why that area was important to them. This component would be very beneficial to not only the public but also to the agency itself, as it will enable further participation and feedback from communities most affected in Southeast Alaska.

There have been a few issues with interpretation of the regulations on other forests, and we urge the Forest Service not to repeat those. They include inadequate explanations of the benefits of wilderness at public meetings, and a focus on how to cut areas out of an inventory, rather than on how an area might be kept in. For example, when the public raises the issue of a “human improvement” in a unit, we have seen Forest Service employees immediately agree that the unit as a whole should be

²⁴ FSH 1909.12, chapter 70, section 71.21 (2)



removed from inventory, rather than explaining (or realizing perhaps) that human improvements in a unit might still be substantially unnoticeable.

In terms of the inventory and more importantly the evaluation step, we would encourage the Forest Service to be as specific as possible about how and why it determined a specific unit may or may not have wilderness characteristics. For example, other forests have rated the different criteria of particular units as having “very high,” “high,” “moderate,” “moderate-low,” or “low” values. Sometimes forests have listed a unit as having “high” solitude and natural characteristics, but then determined the unit as a whole had low or no wilderness characteristics without much additional explanation, leading to confusion on the part of the public about how that determination was made. We understand the Forest Service may not be using this specific type of scoring, but for any method it uses, we request clear documentation of why a unit did or did not get carried forward into analysis. We believe the law requires that units which meet the basic Wilderness Act criteria should be included in the inventory and considered for preservation within the plan. This process should also be used when evaluating roadless areas for other kinds of administrative designations which are not recommended for wilderness at this time, in order to maintain them at the largest possible size.

Furthermore, we hope the Forest Service will have an adequate range of alternatives which represents a spectrum of wilderness management. The analysis of alternatives under NEPA is the “heart” of an environmental impact statement. An agency must “[r]igorously explore and objectively evaluate all reasonable alternatives” to a proposed action.²⁵ While not every possible option must be analyzed, agencies must analyze a reasonable range of alternatives. We have seen other forests with ranges such as 0%, 10%, 15%, and 90%, which does not represent an adequate range of options for purposes of analysis. An adequate range would be something like 0%, 25%, 50%, 75%, and 100% so that analysis of the whole spectrum of possibilities is covered.²⁶

We are also compelled to point out that on page fourteen of the Designated Areas section in the draft assessment, a quote is cited from a previous Regional Forester from 2003 stating that “a lack of strong need for wilderness designation is the main

²⁵ 40 C.F.R. § 1502.14. (a)

²⁶ See, e.g., Council on Environmental Quality, NEPA’s Forty Most Asked Questions, 46 Fed. Reg. 18,026 (Mar. 23, 1981) (“When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS. An appropriate series of alternatives might include dedicating 0, 10, 30, 50, 70, 90, or 100 percent of the Forest to wilderness.”).



rationale for my decision” to not recommend additional wilderness areas to Congress.²⁷ The inclusion of this quote in the assessment is concerning as the statement and decision making predates the 2012 National Forest Management Act regulations, and should be removed as it is not relevant to existing agency policy and direction. Secondly, the former Regional Forester states that “most of the rest of the Tongass is managed to remain in a largely untouched, wildland state for the next fifty years, and the rest is protected by a body of law, regulation, and policy that assures its long-term sustainability.”²⁸ The use of the word ‘assures’ is misleading, as on day one of the second term of the Trump administration, an Executive Order²⁹ was signed directing the U.S. Department of Agriculture to “reinstate the final rule entitled “Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska,” 85 Fed. Reg. 68688 (October 29, 2020),”³⁰ which stripped protections for more than 9.3 million acres of roadless areas in the Tongass National Forest.

Furthermore, section 2 (a) from this Executive Order states that “it is the policy of the United States to “fully avail itself of Alaska’s vast lands and resources for the benefit of the Nation and the American citizens who call Alaska home.”³¹ Additionally, section 2 (c) states “in addition to the actions outlined in subsection (a) of this section, the Secretary of Agriculture shall place a temporary moratorium on all activities and privileges authorized by the final rule and record of decision entitled “Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska,” 88 Fed. Reg. 5252 (January 27, 2023), in order to review such rule and record of decision in light of alleged legal deficiencies and for consideration of relevant public interests and, as appropriate, conduct a new, comprehensive analysis of such deficiencies, interests, and environmental impacts.”³²

In light of these changed circumstances, and the oscillation of federal government policy as it pertains to roadless areas in the Tongass National Forest, we believe it is imperative that the agency include these areas in not only the final inventory for recommended wilderness, but also as a part of the analysis in the evaluation step.

²⁷ U.S. Forest Service, *Tongass National Forest Draft Assessment Designated Areas*, December 2024. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1219894.pdf

²⁸ Ibid.

²⁹ The White House, *Unleashing Alaska’s Extraordinary Resource Potential*, January 20, 2025. <https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-alaskas-extraordinary-resource-potential/>

³⁰ Ibid.

³¹ Ibid.

³² Ibid.



II. Management of Recommended Wilderness Areas

The planning rule requires that the plan include plan components, including standards and guidelines, for the “management of areas recommended for wilderness designation to protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation.”³³ It is our experience that allowing incompatible uses in recommended wilderness areas often impairs wilderness character. Incompatible uses can also lead to a reduction in wilderness potential because the use becomes accepted and expected in these areas, which can lead to a lower likelihood of designation.

In a recent report, the Idaho Conservation League examined the effects of allowing incompatible modes of access in recommended wilderness areas and concluded that allowing incompatible uses in certain circumstances can lead to a diminishing of wilderness character and wilderness potential.³⁴ The Forest Service’s own observations affirm the conclusions found in this report. Staff on the Clearwater National Forest recently assessed the wilderness character of areas recommended for wilderness in 1978. Their analysis found that the wilderness character of half of the areas had degraded in the intervening years, simply by the continued and expanded use of motorized and mechanized vehicles. Region 1 of the Forest Service affirmed this reality in a regional document in which it stated, “[i]n some areas, uses have changed or certain types of use have increased significantly, possibly degrading wilderness characteristics.”

To avoid a situation where wilderness character is degraded and wilderness potential is reduced for recommended wilderness areas, we request that the Forest Service ensure inconsistent uses be prohibited in these areas. Only by developing plan components that manage recommended wilderness consistent with designated wilderness will the Forest Service satisfy the rule’s direction to maintain the ecological and social characteristics that provide the basis for the area’s suitability for wilderness designation. Additionally, we request that the agency categorize recommended wilderness areas in the primitive or semi-primitive non-motorized Recreation Opportunity Spectrum classifications to ensure the management direction within the forest plan is consistent across management schemes.

³³ CFR 219.10 (b) (iv)

³⁴ “In Need of Protection: How Off-Road Vehicles and Snowmobiles Are Threatening the Forest Service’s Recommended Wilderness Areas.” 2011. Idaho Conservation League, Inc.



As part of the Wilderness Evaluation Process, the Forest Service will have a completed inventory of all roadless areas greater than 5000 acres in the forest, and smaller roadless areas which are adjacent to protected areas. The Forest Service should use supplemental criteria which are specific to the Tongass National Forest when determining whether or not to recommend a unit for wilderness, including the unit's value to species of conservation concern, the presence of priority 1 and 2 streams, and the existence of smaller resource-specific management plans in making their decision.

Some lands included in the Forest Service's wilderness inventory will not be recommended for wilderness. These inventoried-but-not-recommended lands will still constitute a set of lands within the forest that are largely undeveloped, and which contain wilderness values. Although the Forest Service is not required to manage these areas in a specific way, it does have to describe in the Record of Decision how the lands will be managed, and to analyze and disclose in the EIS the effects of its proposed management under each alternative.

Inventoried lands which are not ultimately recommended still provide significant ecological and recreational benefits and contain all the values associated with traditional roadless areas and wilderness. We believe the character of each of these areas should still be maintained and enhanced wherever possible through administrative designations and management directives. We suggest the Forest Service consider evaluating the value of these non-recommended areas based on a variety of criteria such as their importance to species of conservation concern and other threatened and endangered species, whether the area is over 5000 acres, whether an area is adjacent to existing wilderness or Inventoried Roadless Area, the presence of outstanding resource values (such as archeology sites, rare plants, rare vegetation types, salmon habitat, or old-growth habitat), the presence of existing overlay restoration/logging plans and the presence of priority 1 and 2 streams. Based on this evaluation, the Forest Service should consider naming these areas some other kind of administrative designation such as a Special Management Area to maintain its values and roadless characteristics, and to maintain the possibility of future wilderness recommendation.

III. Wild and Scenic River Inventory and Eligibility

Dams, diversions, mining, logging, and other development along America's rivers threaten fish and wildlife, natural habitats, subsistence use and drinking water. To balance the widespread development of rivers across the country, Congress enacted the Wild and Scenic Rivers Act in 1968 to protect "free-flowing" rivers and streams



with “outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values . . . for the benefit and enjoyment of present and future generations.”³⁵ The Act permits Congress (or the Secretary of Interior, via application by a state governor and where the state has already protected the river under its laws) to designate qualifying river segments into the National Wild and Scenic River System, thereby affording permanent protection for their free-flowing nature and outstandingly remarkable values.

Federal land management agencies are required to identify and protect rivers that are “eligible” to be included in the National Wild and Scenic River System. A river is eligible if it is free-flowing and has at least one river-related outstandingly remarkable value of national or regional significance. Under the 2012 planning rule, the Forest Service is required to evaluate eligibility as part of a forest plan revision: “the responsible official shall . . . [i]dentify the eligibility of rivers for inclusion in the National Wild and Scenic Rivers System, unless a systematic inventory has been previously completed and documented and there are no changed circumstances that warrant additional review.”³⁶ Changed circumstances may warrant additional review of previous eligibility and/or suitability determinations. “Changed circumstances are changes that have occurred to the river or the river corridor that have affected the outstandingly remarkable values” in either a positive or a negative way.³⁷ Many earlier assessments of potential wild and scenic rivers generally lacked access to now readily available data on river-related values and did not account for the impacts of climate change or other changed circumstances, warranting a second look at high-value streams and rivers within the Tongass.

Chapter 80 of Forest Service Handbook 1909.12 provides detailed guidance on the required inventory of eligible rivers and interim management of those rivers to protect their outstandingly remarkable values and free-flowing nature. Each forest is required to inventory all rivers named on a standard U.S. Geological Survey 7.5-minute quadrangle map to determine and document their eligibility. In doing so, the forest must provide opportunities for public participation “early and throughout the process” and utilize the best available scientific information. The plan must provide plan components – including standards or guidelines – for all eligible river corridors “to protect the values that provide the basis for their suitability for inclusion in the

³⁵ P. L. No. 90-542 Sec. 1 (b) S.119 – 90th Congress (1967-1968): An Act to provide for a National Wild and Scenic Rivers System, and for other purposes." *Congress.gov*, Library of Congress, 2 October 1968, <https://www.congress.gov/bill/90th-congress/senate-bill/119/text>.

³⁶ 36 CFR 219.7 (c) (2) (vi)

³⁷ 36 CFR 219.10 (b) (v)



[National Wild and Scenic River System].”³⁸ Projects and activities must not adversely modify eligible rivers’ free-flowing character, must protect their outstandingly remarkable values, and must maintain their preliminary classification of wild, scenic, or recreational. Together, the set of plan components must meet the intent of specific interim river protection measures addressing a range of projects, activities, and uses.

As of December 2022, 13,466 miles of 228 rivers in 42 states are protected as part of the National Wild and Scenic River System – less than one-quarter of one percent of the nation’s rivers. It should be noted that not a single river mile in the Tongass National Forest is permanently protected as a Wild and Scenic River, though there are several river segments that have been found to be eligible for designation under previous Forest Service planning processes and amendments. As the Draft Assessment points out, the Tongass National Forest has a total of thirty-one river segments totaling 557 miles identified as suitable for Wild and Scenic designation. The Forest Service must carry these findings forward from the draft assessment and into the forthcoming Needs for Change document, yet we believe that there are other rivers, streams and waterbodies that should also be considered for eligibility.

While we understand that previously ineligible rivers are not required to be reassessed, we do note that there have been significant changed circumstances in the region that are affecting the Tongass, and these changes are only likely to increase. Climate change certainly constitutes a changed circumstance – especially since Alaska is changing faster than any other State in the nation, and this needs to be addressed in the assessment and forthcoming Needs for Change document.

There are more than 6,000 streams, tributaries and lakes in Southeast Alaska that are used by salmon, and more than 1,000 of these freshwater bodies enter the ocean directly. With freshwater so common, the landscape diversity and pristine nature of the forest, the Tongass is home to a multitude of stream types. These range from silty, ever-shifting glacial rivers, to slower flowing, tea water-stained muskeg drains, to steeply-falling clearwater alpine creeks. Still others flow from underground karst, areas of easily eroded carbonate rock that form elaborate complexes of caves. Others bubble up from geothermal sources, still warm from tectonic and geothermal activity occurring below Southeast’s broken and convoluted crustal skin. The

³⁸ 36 CFR 219.10 (b) (v)



interconnectedness of the forest and its freshwater pathways to the ocean is nowhere more apparent than in the rainforest.³⁹

Such an array of freshwater stream types gives rise to an equally diverse pool of abundant and unique fish stocks. All five species of Pacific salmon spawn and rear in Tongass streams, producing millions of salmon each year. Cutthroat trout and Dolly Varden char are abundant in many forest streams, and the lush rainforest is home to some of the best remaining steelhead trout streams in the nation. The diversity of fish on the Tongass is deserving of special recognition and the Forest Plan should reflect this fact.

A major habitat problem for Southeast Alaska salmon is the number of stream miles blocked by failed culverts (“barrier” or “red” culverts). When less habitat is accessible to salmon for spawning, rearing and other lifecycle needs, there can be a significant loss of population productivity, to the point of local extirpations.⁴⁰ These blocked and damaged culverts and roads continue to threaten Southeast Alaska’s waterways, not to mention industrial development such as mining operations. Reduced water flows also damage river habitat, increase summer water temperatures, cut oxygen levels, and concentrate pollutants.⁴¹

A primary purpose of the Roadless Rule was to address cost concerns – particularly the costs of building new roads in inventoried roadless areas given the USDA’s large maintenance backlog. The deferred maintenance backlog (which included culvert replacement) was increasing along with rising repair costs and declining funding.⁴² By 2000, the deferred maintenance backlog was \$8 billion and in the long run the agency could only fund maintenance on 20 percent of its existing road

³⁹ “Tongass Rivers, the Lifeblood of the Rainforest: A Citizens Proposal to Protect Rivers of Alaska’s Tongass National Forest”. Southeast Alaska Conservation Council and the Tongass Rivers Coalition. 1995.

⁴⁰ Davis, J.C. and Davis, G.A., 2011. The influence of stream-crossing structures on the distribution of rearing juvenile Pacific salmon. *Journal of the North American Benthological Society*, 30(4), pp.1117-1128; Clark, C., Roni, P., Keeton, J. & Pess, G. 2020. Evaluation of the removal of impassable barriers on anadromous salmon and steelhead in the Columbia River Basin. *Fisheries Management and Ecology* 27(1), 102-110; Price, D.M., Quinn, T. and Barnard, R.J., 2010. Fish passage effectiveness of recently constructed road crossing culverts in the Puget Sound region of Washington State. *North American Journal of Fisheries Management*, 30(5), pp.1110-1125.

⁴¹ “Effects of Altered Stream Flows on Fishery Resources.” American Fisheries Society, <https://fisheries.org/policy-media/policy-statements/afs-policy-statement-9/>

⁴² 2000 Roadless Rule FEIS, supra.



system.⁴³ The Tongass National Forest alone accounted for a deferred maintenance backlog of nearly \$1 billion (in 2002 dollars).⁴⁴ In 2019, estimates of the funding/repair ratio worsened, with a total budget of \$450 million sufficient only to address 10 percent of the national maintenance backlog of \$5.2 billion. The Forest Service currently is not allocating the funds necessary to maintain or decommission roads on the Tongass, and anticipates continuing adverse effects to fish and water quality as older roads and stream crossings deteriorate.⁴⁵

Culverts are the most common method used by road builders to cross streams.⁴⁶ They cost less than bridges but it is difficult to maintain fish passage with constantly changing stream and debris flows, so culverts eventually impede fish passage or become complete barriers to fish movements.⁴⁷ Culverts can also become barriers by creating high-velocity stream flows.⁴⁸ Floods magnify this impact.⁴⁹ Overflow that bypasses barrier culverts also increases sedimentation and stream temperatures.⁵⁰

Barrier culverts and other stream crossings that impair fish habitat are prevalent throughout Southeast Alaska. The cumulative impacts of road networks and multiple stream crossings threaten major adverse effects on fish habitat.⁵¹ Roughly two decades ago, the Alaska Department of Fish and Game surveyed 60 percent of Forest Service roads to assess fish passage problems in the region.⁵² Permanent roads crossed salmon streams more than 920 times and smaller streams more than 1,700 times.⁵³ Only one-third of the stream crossings provided adult and juvenile fish passage.⁵⁴ The Forest Service made an effort to address some of these problems between 1998 and 2006, fixing roughly 50 sites per year, but canceled the program due to funding

⁴³ Ibid.

⁴⁴ Taxpayers for Common Sense. 2019, <https://www.taxpayer.net/energy-natural-resources/cutting-our-losses-tongass-timber/>

⁴⁵ 2020 Alaska Roadless Rulemaking FEIS, supra.

⁴⁶ Clark, C., Roni, P., Keeton, J. & Pess, G. 2020, supra.

⁴⁷ Price, D.M., Quinn, T. and Barnard, R.J., 2010, supra.; Clark, C., Roni, P., Keeton, J. & Pess, G. 2020, supra.

⁴⁸ Davis, J.C. and Davis, G.A., 2011, supra.; Riley, C., 2003. Fish passage at selected culverts on the Hoonah Ranger District, Tongass National Forest.

⁴⁹ Price, D.M., Quinn, T. and Barnard, R.J., 2010, supra.

⁵⁰ 2000 Roadless Rule FEIS, supra.. Clark, C., Roni, P., Keeton, J. & Pess, G. 2020, supra.

⁵¹ 2000 Roadless Rule FEIS, supra.

⁵² Flanders, L.S. & J. Cariello. 2000. Tongass Road Condition Report. ADF&G Habitat Restoration Division Tech. Rpt. No. 00-7. June 2000.

⁵³ Ibid.

⁵⁴ Ibid.



reductions.⁵⁵ Now there are 1,100 culverts blocking over 270 stream miles of fish habitat, with most of them concentrated in the Petersburg and Prince of Wales (Thorne Bay and Craig) Ranger Districts.⁵⁶

Furthermore, climate change is likely to have dramatic impacts on fishery resources by, among other impacts, redistributing fish stocks and reducing productivity.⁵⁷ One of the more notable effects in fish will be changes in body size. Future warming may reduce average fish body size by 14 to 24 percent by 2050, and changes in the availability, distribution and quality of commercial fish species are likely to reduce catch potential in all U.S. regions but the Arctic.⁵⁸ These changes will impact one of the area's most valuable assets in terms of annual dividends, which are its salmon and salmon-producing ecosystems. Salmon use a combination of freshwater, estuarine and marine habitats at different stages of their lifecycle, resulting in exposure to numerous climate change threats. Climate change will stress salmon stocks by disrupting migration patterns, altering the marine food web, changing stream flow patterns in summer and winter, and altering both marine and freshwater temperature regimes.⁵⁹ Climate change affects salmon in many ways, including increased risk of events of pre-spawner, egg or embryo mortality for pink and chum, degradation of lake habitat for sockeye and rearing habitat for juvenile coho.⁶⁰

Just as we pointed out in our comments above as it pertains to the recommended wilderness inventory and evaluation steps, we're compelled again to point out that on page fourteen of the Designated Areas section in the draft assessment, a quote is cited from a previous Regional Forester from 2003 stating that "a lack of strong need for

⁵⁵ 2008 TLMP FEIS, *supra*.

⁵⁶ 2016 TLMP FEIS; USDA Forest Service. 2018. Prince of Wales Landscape Level Analysis Environmental Impact Statement; USDA Forest Service. 2019. Central Tongass Project DEIS, *supra*.

⁵⁷ Weiskopf, S.R., et al. 2020, *supra*.

⁵⁸ *Ibid*.

⁵⁹ *Id.*; Bryant. 2009. Global climate change and potential effects on Pacific salmonids in freshwater ecosystems of southeast Alaska. *Climate Change*, 95: 169-193; Sergeant, C.J., J.R. Bellmore, C. McConnell & J.W. Moore, 2017. High salmon density and low discharge create periodic hypoxia in coastal rivers. *Ecosphere*, 8 e01846; Shanley, C.S. et al. 2015. Climate change implications in the northern coastal temperate rainforest of North America. *Climatic Change*. 130. pp. 155-170.; Shanley, C.S. & D. Albert. 2014. Climate change sensitivity index for Pacific salmon habitat in southeast Alaska. *PLOS ONE* 9(11): e112926.; Tillotson, M.D. & T.P. Quinn. 2017. Climate and conspecific density trigger pre-spawning mortality in sockeye salmon (*Oncorhynchus nerka*), *Fisheries Research*. 188: 138-148.

⁶⁰ Bryant, M.D. 2009, *supra*.



wilderness designation is the main rationale for my decision” to not recommend additional wilderness areas to Congress.⁶¹ The inclusion of this quote in the assessment is concerning as the statement and decision making predates the 2012 National Forest Management Act regulations, and should be removed as it is not relevant to existing agency policy and direction. Secondly, the former Regional Forester states that “most of the rest of the Tongass is managed to remain in a largely untouched, wildland state for the next fifty years, and the rest is protected by a body of law, regulation, and policy that assures its long-term sustainability.”⁶² The use of the word ‘assures’ is misleading, as on day one of the second term of the Trump administration, an Executive Order⁶³ was signed directing the U.S. Department of Agriculture to “reinstate the final rule entitled “Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska,” 85 Fed. Reg. 68688 (October 29, 2020),”⁶⁴ which stripped protections for more than 9.3 million acres of roadless areas in the Tongass National Forest.

Furthermore, section 2 (a) from this Executive Order states that “it is the policy of the United States to “fully avail itself of Alaska’s vast lands and resources for the benefit of the Nation and the American citizens who call Alaska home.”⁶⁵ Additionally, section 2 (c) states “in addition to the actions outlined in subsection (a) of this section, the Secretary of Agriculture shall place a temporary moratorium on all activities and privileges authorized by the final rule and record of decision entitled “Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska,” 88 Fed. Reg. 5252 (January 27, 2023), in order to review such rule and record of decision in light of alleged legal deficiencies and for consideration of relevant public interests and, as appropriate, conduct a new, comprehensive analysis of such deficiencies, interests, and environmental impacts.”⁶⁶

In light of these changed circumstances, and the oscillation of federal government policy as it pertains to roadless areas and their rivers, streams, and lakes in the Tongass National Forest, we believe it is imperative that the agency review

⁶¹ U.S. Forest Service, *Tongass National Forest Draft Assessment Designated Areas*, December 2024. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1219894.pdf

⁶² Ibid.

⁶³ The White House, *Unleashing Alaska’s Extraordinary Resource Potential*, January 20, 2025. <https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-alaskas-extraordinary-resource-potential/>

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.



eligibility for river segments found to be ineligible in prior planning processes, and that they move forward into the Final Assessment for further analysis.

Furthermore, in 1993, the National Park Service conducted a Nationwide River Inventory to assess what rivers and streams may be included in the National Wild & Scenic Rivers System. This inventory found that in the Tongass, 1,400 river miles were determined to be free-flowing and possessed several Outstandingly Remarkable Values worthy of protection.⁶⁷ The values found by the National Park Service include scenic, recreational, geology, wildlife, fish, cultural, historical and other values. We have attached to our comments a list of rivers, streams and water bodies that illustrates each river segment or body of water, along with their values, length, and a brief description of what makes them special and unique to Southeast Alaska as outlined by the Nationwide River Inventory conducted by the National Park Service.

Timber Resources

The Timber Resources chapter provides an analysis of timber management in the Tongass National Forest, addressing ecological, economic, and social factors. However, it presents incomplete and potentially misleading information on timber harvesting, viewing the Tongass' timber somewhat monochromatically as a resource, rather than as a collective contribution to a broader social, ecological, cultural system. The statistic that 4% of the total forest and 8% of productive forest has been harvested lacks context, particularly regarding the disproportionate impact on lowland old-growth forests, which comprise only about 2–3% of the Tongass. These lowland areas—particularly high volume Class 7 timber stands—have been preferentially targeted for logging. Historically, Volume Class 7 forests covered approximately 491,000 acres, representing about 4% of the forested area. Due to extensive logging, over two-thirds of these high-volume stands have been harvested, leaving approximately 163,000 acres intact, which is about 1.3% of the forested area. Additionally, the extensive logging of floodplain forests—where 20–40% has been harvested since 1954—should be explicitly acknowledged⁶⁸.

The following table summarizes the historical and remaining proportions and acreages of Volume Class 7 old-growth forests in the Tongass National Forest:

⁶⁷ [Alaska - Rivers \(U.S. National Park Service\)](#)

⁶⁸ GroundTruth Alaska, "Logging the Tongass National Forest," accessed February 5, 2025, <https://groundtruthalaska.org/articles/Logging-Tongass-National-Forest/>.



| Historical Acreage | Historical Proportion of Forested Area | Remaining Acreage | Remaining Proportion of Forested Area |
|----------------------|--|-------------------|---------------------------------------|
| Approx 491,000 acres | 4% | 163,000 | 1.3% |

Note: The historical acreage is estimated based on the total forested area of the Tongass, and the remaining acreage is calculated considering that over two-thirds of the original Volume Class 7 areas have been logged.

Ecologically, high-volume lowland old-growth forests are critical not only for their role in carbon sequestration and watershed protection but also for providing specialized habitat for numerous species. For instance, these mature forests offer essential nesting and foraging habitats for Bald Eagles and Marbled Murrelets, both of which require large, old trees with suitable structural features for nesting. Additionally, the complex canopy structure and associated floodplain areas benefit Pacific salmon species by maintaining water quality and providing rich, nutrient-dense environments crucial for spawning. Other species, such as black bears and Sitka black-tailed deer, also depend on the diverse and interconnected habitats of these lowland forests for survival and reproduction⁶⁹.

Economic analyses should be more thorough and include the full costs of road-building for timber extraction, as these costs frequently render projects financially unviable. A review by Taxpayers for Common Sense found that between 1980 and 2019, the U.S. Forest Service's timber sale program in the Tongass resulted in a net loss of approximately \$1.73 billion, averaging \$44.5 million per year. In 2019 alone, the program operated at a \$16.1 million deficit, a pattern consistent over multiple decades. These losses are exacerbated by infrastructure costs, with over 40% of expenditures between FY2000 and FY2019 attributed to road construction and maintenance for logging operations. Additionally, while annual losses have declined due to reduced timber sales, the loss per thousand board feet has increased, indicating a worsening financial performance⁷⁰. While the chapter highlights forest health concerns, economic contributions, and timber's role in rural communities, contextual

⁶⁹ Schoen, John W., and Erin Dovichin, eds., *Ecological Atlas of Southeast Alaska* (Anchorage: Audubon Alaska and The Nature Conservancy, 2011).

⁷⁰ Taxpayers for Common Sense, "Cutting Our Losses after 40 Years of Money-Losing Timber Sales in the Tongass," September 2020, https://www.taxpayer.net/wp-content/uploads/2020/09/TCS-Cutting-Our-Losses-40-yrs.-of-Tongass-Timber-Sales_Sept.-2020.pdf.



refinements to ensure a holistic analysis that includes full operating costs is needed to ensure a comprehensive assessment. Specifically, the subsection “Factors Affecting Timber Sale Economics and Project Design” would benefit from the inclusion of further historical revenue/cost analysis builds on the sections acknowledgment that “Alaska is inherently a high round log export primarily serves larger international trade cost operating environment”⁷¹.

A fundamental economic issue that should be addressed by the chapter is the inherent fallacy of round log exports as an economic ingress to the state. The paper notes that “the Tongass National Forest is unique because its Limited Export Policy makes it the only national forest west of the 100th meridian of the United States authorized to export unprocessed timber to international destinations”⁷². As a point of economic analysis, it should be noted that round log exports circumvent any value-added processes that would contribute to local markets. Similarly, the scale of round log export operations primarily benefits large out-of-state logging companies to the detriment of local small mill operators. In order to actively contribute to Alaska’s local economies, logging activities should be structured to specifically support small mill operators, both in scale and value added operations.

The methodology behind key timber yield calculations—including the Sustained Yield Limit, Projected Wood Sale Quantity, and Projected Timber Sale Quantity—should be clearly detailed. Providing transparent methodologies and formulas would improve understanding of the constraints and assumptions underlying timber projections. The rationale for setting the Sustained Yield Limit at 248 MMBF should be clarified, along with an explanation for why current harvest levels remain significantly lower. A sensitivity analysis exploring how different assumptions impact projected yields would strengthen this section. Similarly, the section notes that this level of extraction is only feasible under a scenario in which “...all these lands were managed to produce timber without considering other multiple uses or fiscal or organizational capability.”⁷³ It is worth explicitly stating that such extraction is not a feasible sustained yield limit because this is not a realistic ecological or silvicultural management schema.

⁷¹ United States Department of Agriculture, Forest Service, Alaska Region. *Draft Timber Resources Assessment: Tongass National Forest Plan Revision*. Tongass National Forest, December 2024.

⁷² Daniels, Jean, Priscilla Morris, and Dan O’Leary. September 2023. *Tongass National Forest: 2022 Sawmill Capacity and Production Report*. USDA Forest Service, Alaska Region. 14 p.

⁷³ U.S. Forest Service, *Draft Timber Resources Assessment*.

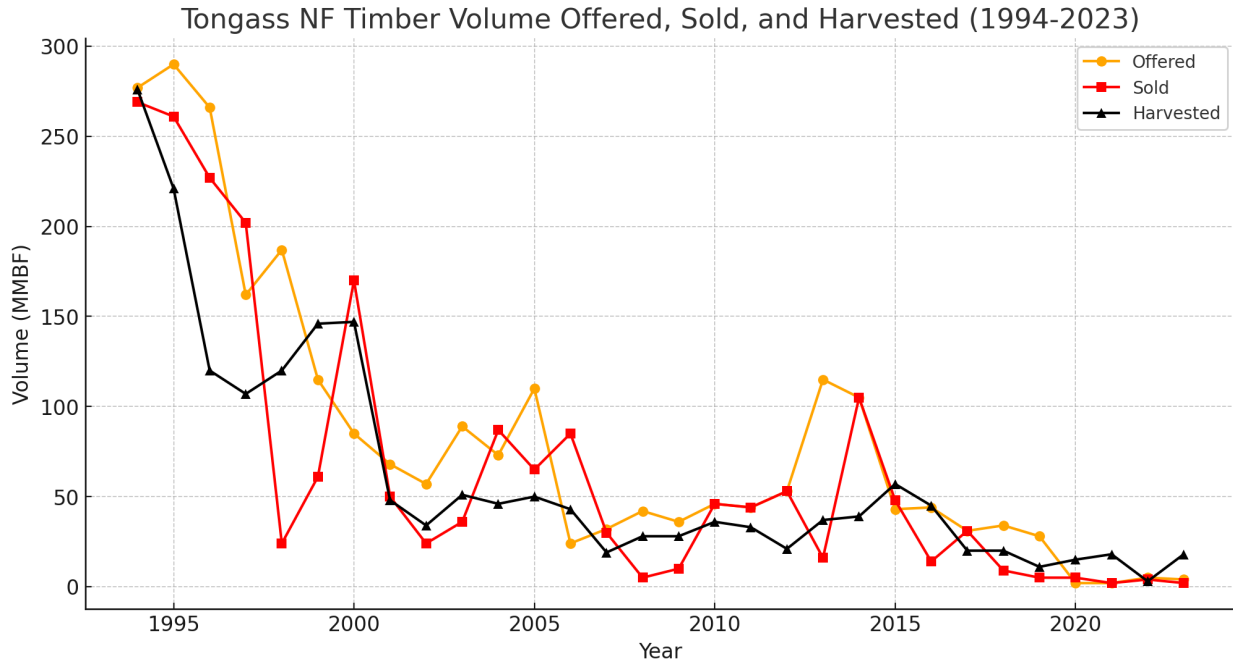


Figure 1. Graphical representation of the total offered, sold, and harvested timber in the Tongass National Forest. Note in particular that 2013 shows a decoupling of offered and sold from harvested.

The table represents the declining harvests, sales, and offers since the mid-90s and the chapter also addresses the declining workforce related to timber. Timber harvesting is assessed primarily through the lenses of cost and harvest limits, homogenizing variables into an overly simplistic economic viewpoint. The assessment of viable timber should include the economic impact on other industries that rely on the health of the Tongass, such as fisheries and tourism, which contribute significantly more to the state economy. In 2023, the timber industry contributed only 0.6% to the state's economy and continues to shrink in workforce, whereas the visitor industry has grown substantially and accounts for 12.5% of total state employment earnings. The fisheries and seafood industry account for 8% of total employment earnings⁷⁴. This shift in economic trends indicates that other markets which are directly affected by the ecological impact of the timber industry, also provide a greater economic benefit to the state overall.

⁷⁴ Southeast Conference. *Southeast Alaska by the Numbers 2024*. Juneau, AK: Southeast Conference, 2024. Accessed February 5, 2025. <https://www.seconference.org/publication/southeast-alaska-by-the-numbers-2024/>.



The transition from old-growth to young-growth timber harvesting would benefit from additional discussion. The chapter should further explore the challenges, opportunities, and uncertainties associated with this shift, including the time needed for young-growth stands to reach commercial viability and the desired ecological conditions for these acres. Infrastructure improvements necessary for young-growth processing should also be explicitly outlined to ensure a viable and sustainable transition.

As a transversal theme, this chapter in particular could benefit from deeper integration of Indigenous perspectives. While the cultural significance of timber resources is mentioned, the analysis would benefit from further discussion of Indigenous knowledge and co-management strategies. Indigenous approaches to selective harvesting, partner organization programs, and the protection of culturally significant tree species, such as western redcedar and Alaska yellow-cedar. Additionally, the economic and cultural importance of traditional wood uses—including the carving and raising of totem poles and the construction of dugout canoes—should be explicitly recognized. More research is needed to understand how traditional wood use supports community well-being and cultural preservation.

The chapters of the assessment should be more explicitly connected, particularly in addressing the intersections and potential conflicts between different Forest Service objectives—such as managing for carbon stocks, adapting to climate change, and maintaining a timber program. The Timber Resources chapter would benefit from acknowledging that timber harvest is the largest contributor to carbon stock loss in the Tongass (see Carbon Stocks). Integrating this recognition would provide a more complete assessment of how timber extraction affects long-term forest carbon storage and climate resilience. Additionally, the chapter should examine the long-term reliability of sustained yield projections in the face of climate change, considering shifting forest productivity and increased ecological variability. A more holistic discussion of forest value—including its role in mitigating climate change—would enhance the assessment’s relevance to broader forest management strategies.

Finally, the chapter must acknowledge that even-aged management and clearcutting contribute to habitat fragmentation, biodiversity loss, and the transformation of the forest into a patchwork of silvicultural fields rather than a functioning ecosystem. A more holistic approach to forest management is necessary—one that prioritizes ecological integrity while balancing economic and social needs.



Subsistence

The assessment of subsistence resources in the Tongass National Forest aims to recognize the essential role of non-commercial harvest activities, including food security, economic impact, and cultural traditions. However, the existing Tongass Forest Plan lacks specific direction on how to protect these resources effectively. Current guidance primarily summarizes the requirements set forth in the Alaska National Interest Lands Conservation Act, without detailing distinct subsistence practices, resources, or community-specific goals. To ensure that subsistence remains a priority in forest management, the plan must go beyond compliance with ANILCA and integrate comprehensive management strategies informed by local knowledge and Indigenous perspectives⁷⁵.

Declining Fish and Wildlife Populations

Salmon, particularly Chinook, have experienced significant population declines, with multiple stocks listed as Stocks of Concern by the Alaska Department of Fish and Game. Changes in spawning location and timing have disrupted traditional harvest practices, impacting both ecological systems and subsistence users. The economic impact is profound, with annual ex-vessel values ranging from \$50 million to \$150 million. Approximately 75% of the salmon harvested commercially in Southeast Alaska originate in Tongass National Forest watersheds, emphasizing the forest's role as a productive salmon stronghold⁷⁶.

The USDA Climate Hub notes the multifaceted importance of salmon for Southeast Alaska, reaching the nexus of subsistence, cultural heritage, and economic importance. "For instance, the Tlingit believe that salmon are a sacred people as well as a food source, and that respectful treatment of salmon ensures they will return to their natal streams. Salmon also contribute to food security for Alaska Natives and rural residents. In rural areas, salmon make up 29% of all harvested wild food. Commercially, salmon fisheries in Southeast Alaska are the state's largest fisheries in

⁷⁵ U.S. Forest Service, *Helena-Lewis and Clark National Forest, 2021 Land Management Plan, Chapter 3, Geographic Area Direction*, p. 185-186.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1148266.pdf

⁷⁶ USDA Climate Hubs. "Salmon and Climate Change in Southeast Alaska."

<https://www.climatehubs.usda.gov/hubs/northwest/topic/salmon-and-climate-change-south-east-alaska>



volume and second most valuable, generating nearly \$4 billion in revenue since 1975.⁷⁷

While salmon stocks are generally considered stable, subsistence salmon harvests have declined, with decreasing state-issued permits reflecting shifting participation. The current assessment acknowledges that many subsistence communities rely on stocks with little to no monitoring, raising concerns about whether these populations are truly stable or if insufficient data masks potential issues⁷⁸.

Similarly, deer populations on Prince of Wales Island have been negatively affected by logging and road construction, which have fragmented habitats. Additionally, increased algal blooms in marine environments, exacerbated by climate change, have raised toxin levels in shellfish, reducing their availability for subsistence harvesters⁷⁹.

Timber Harvest and Road Development Impacts

The assessment acknowledges that past timber harvest practices have harmed aquatic ecosystems, particularly anadromous fish populations. Watersheds degraded by logging and road construction prior to 1990 have suffered from erosion, sedimentation, and reduced water quality. The Tongass Timber Reform Act (1990) and subsequent Forest Plans (1997, 2008, 2016) introduced increased protections, including buffer zones, to mitigate these effects. However, legacy damage persists, and ongoing restoration efforts must be rigorously evaluated to ensure they meet conservation objectives⁸⁰.

The Forest Service claims to be working on stream improvement projects, such as replacing culverts and increasing large wood in streams to enhance fish habitat. However, the assessment does not specify the scope or effectiveness of these projects.

⁷⁷ Sasap. "Southeast Alaska - SASAP : State of Alaska Salmon and People." Southeast Alaska : SASAP : State of Alaska Salmon and People. Accessed February 19, 2025. <https://alaskasalmonandpeople.org/region/southeast-alaska/>.

⁷⁸ Laine Welch. "Alaska 2024 Salmon Season Tanks in Both Total Catch and Value." *National Fisherman*. <https://www.nationalfisherman.com/alaska-2024-salmon-season-tanks-in-both-total-catch-and-value>

⁷⁹ Schoen, John W., and Erin Dovichin, eds., *Ecological Atlas of Southeast Alaska* (Anchorage: Audubon Alaska and The Nature Conservancy, 2011).

⁸⁰ 2000 Roadless Rule FEIS, supra.. Clark, C., Roni, P., Keeton, J. & Pess, G. 2020, supra.



A clearer framework for evaluating restoration success and ensuring fish passage improvements is necessary.

Climate Change and Subsistence

Climate change is altering the availability and distribution of subsistence resources. Rising ocean temperatures have led to increased algal blooms and shifting fish migration patterns, making traditional harvest seasons less predictable. Additionally, altered precipitation patterns affect freshwater systems, further influencing fish spawning and habitat quality⁸¹.

The assessment states that local knowledge should inform climate adaptation strategies but does not outline how this input will be gathered or integrated. Indigenous communities have observed climate changes for thousands of years, and their perspectives must be systematically included in the management process to ensure effective adaptation measures⁸².

Policy Recommendations

To strengthen subsistence protections, the Tongass Forest Plan must:

- Develop specific management goals for subsistence access, habitat restoration, and resource monitoring.
- Expand tracking of unmonitored subsistence stocks to improve data-driven decision-making.
- Continue and enhance efforts to replace problematic culverts, restore fish passage, and increase habitat complexity.
- Integrate Indigenous knowledge into all stages of planning, ensuring co-management agreements with tribal governments and subsistence communities.

The Tongass National Forest plays a crucial role in sustaining subsistence practices in Southeast Alaska. The Forest Plan must explicitly address subsistence needs by strengthening habitat protections, improving monitoring efforts, and incorporating Indigenous knowledge into management strategies. A comprehensive

⁸¹ Chilkat Indian Village, Environmental Department. *Resilience Planning for Tlákw Aan (Klukwan)*, Chilkat Indian Village Tlákw Aan (Klukwan), Southeast Alaska Environmental Department Resilience Plan 2023.

⁸² U.S. Forest Service, *The Tongass as an Indigenous Place Draft Assessment*, December 2024, p. 27. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221271.pdf



approach will ensure that subsistence remains viable for future generations while maintaining the ecological integrity of the Tongass.

Carbon Stocks

The Carbon Stocks section of the Assessment provides a thorough overview of carbon storage dynamics in the Tongass National Forest, incorporating multiple data sources such as Forest Inventory and Analysis data, the LandCarbon model, and recent soil carbon studies. The report does well in recognizing the Tongass as a nationally significant carbon sink and in identifying the dominant carbon pools, particularly the substantial role of soil carbon. Additionally, the discussion of climate-related factors influencing future carbon stocks offers important context for understanding the potential vulnerability of forest carbon to changing environmental conditions⁸³.

However, the assessment could be strengthened by further contextualizing carbon storage within the broader ecological framework of associated ecosystem services such as variable habitat provision, biodiversity, and water filtration. Carbon sequestration is a vital function of the Tongass, and the section could benefit from presenting carbon storage in relation to how it operates in concert with other ecosystem functions. Recognizing this interdependence would enhance the utility of the draft assessment for identifying critical areas for land management planning. This is particularly important for building a clear picture of the value of old growth forests in relation to maintaining and building soil carbon stocks.

One key area requiring further elaboration is the impact of timber harvest on both aboveground and belowground carbon storage. While the draft assessment acknowledges that timber harvest is the dominant disturbance on the Tongass, its discussion of carbon loss primarily focuses on aboveground biomass. The impact of these disturbances on increased erosion and loss of soil carbon is underexplored, despite its importance as the largest carbon pool in the forest. Deforested and eroded soils measure marked increases in sand particles, bulk density, soil temperature, pH, and electrical conductivity, and significant decreases in total porosity and organic carbon storage. The average organic carbon content of deforested and eroded soils has been found to be more than five times lower than that of soils under forest vegetation. The conservation of soil organic carbon and microbial biomass is closely tied to the

⁸³ Schoen, John W., and Erin Dovichin, eds., *Ecological Atlas of Southeast Alaska* (Anchorage: Audubon Alaska and The Nature Conservancy, 2011)



preservation of vegetation and soil integrity⁸⁴. The draft assessment should more explicitly address how timber harvest, particularly in old-growth forests, affects soil carbon stability over time. Given that soil carbon loss can be a long-term consequence of disturbance, incorporating a more detailed analysis of post-harvest soil carbon dynamics would provide a clearer picture of the full impact of logging activities. Studies undertaken in similar ecosystems in British Columbia required up to 200 years of forest regeneration before carbon returned to pre-clearcut levels⁸⁵.

While the draft assessment effectively analyzes carbon stocks and acknowledges the Tongass as a critical carbon sink, it does not explore economic or policy mechanisms that could incentivize carbon conservation as an alternative to extractive income generation. Carbon trading, conservation easements, and ecosystem service markets offer viable economic pathways that align with climate resilience and forest preservation. Given the Tongass's importance, incorporating a discussion on policy frameworks that facilitate carbon sequestration incentives—such as carbon offset markets or payments for ecosystem services—would enhance the draft assessments applicability to land-use decision-making. These approaches align with state policies such as SB48, which authorizes Alaska to participate in carbon offset programs and develop mechanisms for monetizing carbon sequestration on state lands⁸⁶. Integrating this discussion and linking it to the land use designations section would improve the planning utility of the assessment.

As a point of scientific scrutiny, the report suggests that carbon stocks have increased over the past two decades, yet this finding falls within the confidence interval of the measurement technique, raising questions about the statistical significance of this trend. Specifically, Forest Inventory and Analysis data indicate that total carbon stocks in the Tongass National Forest increased from 891.8 teragrams of carbon (Tg C) in 2005 to 914.5 ± 25.3 Tg C in 2023—an approximate 2.5 percent

⁸⁴ Ontl, Todd A., and Lisa A. Schulte. "Soil Carbon Storage." *Nature Education Knowledge* 3, no. 10 (2012): 35.

⁸⁵ Pojar, J. 2021. Old-growth forests of Fairy Creek, Vancouver Island, British Columbia.

⁸⁶ **Legislature of the State of Alaska.** *Enrolled SB 48: Relating to the Powers and Duties of the Alaska Oil and Gas Conservation Commission; Authorizing the Department of Natural Resources to Lease Land for Carbon Management Purposes; Establishing a Carbon Offset Program for State Land; Authorizing the Sale of Carbon Offset Credits; Authorizing the Use of Land and Water within the Haines State Forest Resource Management Area for a Carbon Offset Project; Authorizing the Undertaking of Carbon Offset Projects on Land in Legislatively Designated State Forests; Relating to Oil and Gas Lease Expenditures; and Providing for an Effective Date.* 33rd Legislature (2024). Accessed February 5, 2025. <https://www.akleg.gov/basis/Bill/Text/33?Hsid=SB0048Z>.



increase over this period⁸⁷. However, the uncertainty in the 2023 estimate (± 25.3 Tg C) is greater than the reported net change in carbon stocks, meaning the observed increase may not be statistically significant. The language in the report should explicitly reflect that the observed increase falls within the confidence interval and may be within the margin of error. The interpretation should be more judicious in establishing standardized measurement protocols rather than stating trends.

The Carbon Stocks section is a valuable contribution to understanding carbon dynamics in the Tongass National Forest. However, it would benefit from a more comprehensive discussion of soil carbon impacts from logging, a clearer interpretation of carbon stock trends, and a more integrated approach to considering carbon sequestration alongside other ecosystem services. These refinements would ensure that the report more effectively informs land management strategies that balance carbon conservation with broader ecological and cultural considerations.

Socioeconomic Conditions

The Draft Assessment does a good job of collecting and presenting the many various data sets and research about socioeconomic conditions in Southeast Alaska, including the main economic drivers in the plan area. All this gathered data, however, is not used to make a case for the Need to Change the current plan, which is the primary purpose of an Assessment. The Forest Service should address this shortcoming in the final Assessment report.

Community Resiliency

The Forest Service should conduct a detailed socioeconomic impact analysis of proposed changes, focusing on at-risk communities. The socioeconomic impacts of Tongass management, particularly on subsistence-dependent communities and workforce development, require further analysis.

Furthermore, we see a definition of what puts a community more at risk to experience adverse economic impacts in the “Community Resiliency” section. “In contrast, social vulnerability refers to socioeconomic factors, such as poverty and lack of access to healthcare, that adversely affect communities that encounter hazards and other community level stressors.”⁸⁸ This is followed by many data sets of factors that

⁸⁷ United States Department of Agriculture, Forest Service, Alaska Region. *Draft Carbon Stocks Assessment: Tongass National Forest Plan Revision*. Tongass National Forest, December 2024.

⁸⁸ U.S. Forest Service, *Draft Socioeconomic Assessment Tongass National Forest Plan Revision*, December 2024, p. 37. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221271.pdf



contribute to a community being at higher risk to environmental and social impacts. The Forest Service should then use this information to identify which communities need further attention, and develop a plan to achieve equitable resiliency for all Southeast communities.

To assist with the development of these plans for equitable community resiliency across the region, the Forest Service should refer to the histories of thriving economies that have existed here for thousands of years, designed by Tlingit, Haida, and Tsimshian peoples. *Balance at the Speed of Trust: The Story of the Sustainable Southeast Partnership* states that, “Alaska Natives indigenous to this region have histories of resilient economies stretching back millennia. However, for decades, we’ve experienced protracted conflicts around resource use that have created enmity between conservation groups and industry. Local economies have declined as milling has become less viable and as extractive activities have impacted the wildlife habitat residents rely upon for subsistence harvesting.”⁸⁹ These are economies that continue to exist today and must be collaborated with and deferred to in the buildout of resiliency plans.

While the report acknowledges that the socioeconomic integrity of the plan area is directly related to the ecological integrity of the Forest – and that human communities are inextricably linked to ecological communities – it fails to include any meaningful discussion of actual socioeconomic issues relevant to Tribes compared to some other Assessments such as the draft Tongass as an Indigenous Place Assessment report, which does an excellent job of connecting these issues. For example, the draft Socioeconomic Conditions Assessment report states that “In addition to Alaska Native uses for timber and wood products, local community members rely on wood for personal use like firewood and other household needs.”⁹⁰ But the report does not explain what those “Alaska Native uses” are or what their economic impacts may be. On the other hand, the Tongass as an Indigenous Place Draft Assessment report specifically provides real-world examples of how Native uses for timber can create a real and entirely quantifiable economic impact. This section states that “The total economic estimated costs associated with the commissioning of a single 25-foot pole

⁸⁹ Peter Forbes, *Finding Balance at the Speed of Trust: The story of the Sustainable Southeast Partnership*, 2018, p. 3.

<https://www.nature.org/content/dam/tnc/nature/en/documents/SSP-Speed-of-Trust.pdf>

⁹⁰ U.S. Forest Service, *Draft Socioeconomic Assessment Tongass National Forest Plan Revision*, December 2024, p. 48. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221271.pdf



for the project was \$218,500 in direct spending with an additional \$65,000 on indirect and induced spending.”⁹¹

In our view, there is no one-size-fits-all approach to providing for economic sustainability on the Tongass. Communities want the ability to chart their own sustainable socioeconomic future, recognizing that ecological integrity of the landscape provides the essential ingredients for this future. Therefore, the Final Assessment should retain the existing focus on the economic value of the Tongass, but also prioritize addressing the changing nature of the economic base of Southeast Alaska.

Education and Volunteering

There is limited discussion of Indigenous-led stewardship and co-management opportunities in this chapter. The “Education and Volunteering”⁹² section should be expanded to include all known Indigenous-led stewardship efforts, such as Seacoast Indigenous Guardians Network; Alaska Youth Stewards; Indigenous Ecosystem Stewardship Exchange Program; the Mendenhall Glacier Recreation Area co-stewardship program; Hoonah Native Forest Partnership and many more. Confirmation from each Southeast community that the Forest Service has accounted for all existing co-stewardship programs should be acquired. Requests for co-stewardship programs should also be gathered from communities that lack the resources needed to have already established programs. Here, the Forest Service should provide clear pathways for Indigenous co-stewardship, with adequate funding for tribal resource departments. ANILCA local hire is another specific tool of Alaska’s National Forests that can increase economic opportunities for our tribal members, and the authority should be utilized for higher level GS positions.

The Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service suggests that, “Innovative approaches include social learning and adaptation, which depend upon local communities having sufficient political capacity, economic resources, and technical expertise to be full participants in ecosystem management.” They follow up to include that, “these communities have economies and culture long associated with utilization of forest resources. As a result, the people have a ‘sense of place’ and desire for involvement. Many of these local workers already possess timber/forest-related skills and

⁹¹ Ibid. p. 48-49

⁹² Ibid.



knowledge, as well as that sense of place, which in combination make them natural participants in ecosystem-based management and monitoring.”⁹³

Include data on tourism infrastructure needs and the environmental impacts of cruise ship emissions and crowding. Develop a plan, with deadlines, of how the Forest Service will create space to hear from Tribes about tourism and recreation presence on respective lands, knowing that needs will not be universal. The Forest Service should then develop distinct plans to provide capacity and funding resources to support Tribes with managing the agreed upon tourism and recreation arrangements. These plans should include initiatives for local workforce training and education in sustainable forest management and other sectors. Further recommendations regarding tourism and recreation can be found in the Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service⁹⁴, such as:

- **1-76, Guideline:** “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.”
- **1-109, Monitoring:** “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.”

As the Forest Service’s capacity to address mission critical needs declines, co-stewardship and co-management represent important opportunities to not only address agency capacity limitations but also honor Tribal sovereignty and the federal Trust responsibility.

⁹³ Federal Advisory Committee. Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service, July 2024, Appendix B.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf

⁹⁴ Federal Advisory Committee. Northwest Forest Plan Amendment: Federal Advisory Committee Recommendations to the U.S. Forest Service, July 2024.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1188978.pdf



Subsistence and Other Non-Commercial Harvest

Subsistence is critical for community well-being but underrepresented in the Draft Socioeconomic Assessment Tongass National Forest Plan Revision.⁹⁵ This chapter includes a section titled, “Subsistence and Other Non-Commercial Harvest” which is an important start, but must be connected to Subsistence and Other Harvest (Non-Commercial) Resource Assessment Tongass National Forest Plan Revision⁹⁶ with clear and complete references, or, expanded on within the Draft Socioeconomic Assessment to make clear that traditional ways of life are a priority for the Forest Service. We again encourage agency staff to coordinate with each other to ensure that relevant subject matter expertise is reflected in all relevant Assessment reports, rather than appearing in isolation. Either way, it is necessary to expand the intersection of subsistence and socioeconomic conditions to highlight economic importance, not just drawbacks, of subsistence access.

A more comprehensive approach to socioeconomic conditions would, additionally, better recognize the value of salmon, which have sustained our communities since time immemorial and are an integral part of the development of our societies on these homelands. Salmon have immense cultural value, as well as commercial and ecological value, and the need for change should reflect the need to restore degraded salmon habitat to a healthy functioning state, due to its importance for the cultural, ecological, and economic health of our communities and peoples. The assessment currently does a poor job of reflecting the importance of salmon and healthy salmon habitat to our communities, now and into the future.

Drivers, Stressors, and Climate Change

Operationalizing Data

The *Drivers and Stressors of Climate Change* assessment in the Draft Tongass National Forest Plan Revision provides a fairly strong overview of the climate stressors impacting the region. The report cites notable voices within Alaska’s climate policy arena; although, it would be valuable to include the recent report *Alaska’s Changing*

⁹⁵ U.S. Forest Service, *Draft Socioeconomic Assessment Tongass National Forest Plan Revision*, December 2024. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1220701.pdf

⁹⁶ U.S. Forest Service, *Subsistence and Other Harvest (Non-Commercial) Resource Assessment Tongass National Forest Plan Revision*, December 2024. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1221272.pdf



Environment 2.0.⁹⁷ As a planning document, however, the Assessment lacks a structured framework to translate these climate stressors into actionable, measurable adaptation strategies. Without a clear results-based framework, the assessment remains descriptive rather than operational, making it difficult for the Forest Service to define effective interventions, set priorities, or measure success over time.

We recommend integrating the *Open Standards for the Practice of Conservation* (hereafter referred to as Open Standards) into the *Drivers and Stressors of Climate Change* chapter to establish a structured situational model and results framework. By adopting this internationally recognized conservation planning framework, the Forest Service can:

- clarify the causal relationships between climate stressors and ecological/cultural impacts,
- design targeted adaptation interventions, and
- establish measurable indicators for tracking progress.

This approach would also enhance the alignment between the *Draft Drivers, Stressors and Climate Change Assessment* assessment and other assessments (e.g., *Tongass as an Indigenous Place, Carbon Stocks, Timber Resources*), ensuring that climate adaptation strategies are integrated with land management, carbon sequestration goals, subsistence, timber, and Indigenous knowledge systems. The framework provides a succinct methodology for addressing this multivariate approach and addressing the complexities in dealing with communities and ecosystems.

Adaptive Planning Framework for Drivers and Stressors of Climate Change

The Open Standards are a globally recognized framework used by resource management practitioners, land-use agencies, and nonprofits to systematically plan, implement, and adapt development and management strategies. It has been adopted by organizations including federal and state agencies⁹⁸.

At its core, the Open Standards framework provides a design thinking approach that follows these key steps:

⁹⁷ Thoman, R. and H. R. McFarland, editors. *Alaska's Changing Environment 2.0* (2024). Alaska Center for Climate Assessment and Policy, International Arctic Research Center, University of Alaska Fairbanks. uaf-iarc.org/communicating-change.

⁹⁸ Conservation Measures Partnership, *Open Standards for the Practice of Conservation*, Version 4.0 (Bethesda, MD: Conservation Measures Partnership, 2020), 12.



1. **Define Scope & Targets** – Identify the key systems, species, and human communities affected.
2. **Map Situational Models (Conceptual Models)** – Identify drivers, stressors, and causal linkages.
3. **Develop Results Chains** – Show how actions/interventions lead to desired conservation outcomes.
4. **Select Indicators for Monitoring** – Establish measurable indicators that track progress and allow for adaptive management.
5. **Implement, Adapt, and Learn** – Use an adaptive management cycle based on evidence.

By incorporating these steps into the *Draft Drivers, Stressors and Climate Change Assessment*, the Forest Service can shift from a descriptive document to an action-oriented strategy for climate adaptation in the Tongass. Furthermore, these actions can be structured in such a way that the interrelated nature of each chapter can speak to one another graphically and organizationally.

Application of the Open Standards

1. Building a Situational Model: Linking Climate Drivers (and impacts on other sectors) to Stressors and Impacts

A situational model (conceptual model) visually maps the relationships between climate drivers, stressors, impacts, and management responses. Currently, the Draft Drivers, Stressors and Climate Change Assessment assessment lists multiple climate drivers (e.g., temperature rise, increased precipitation variability, ocean acidification), but does not structure them in a way that shows their causal relationships or interdependencies.

A situational model for the Tongass could illustrate:

- Climate Drivers (e.g., increasing temperatures, shifting precipitation patterns)
- Primary Stressors (e.g., invasive species proliferation, shifting tree species distribution, reduced snowpack)
- Ecological & Cultural Impacts (e.g., salmon habitat degradation, loss of culturally significant species like cedar)
- Potential Management Interventions (e.g., habitat restoration, carbon reserve designation, invasive species control)

For example:



- Driver: Rising temperatures → Stressor: Declining snowpack → Impact: Yellow cedar mortality → Response: Assisted migration, habitat protection
- Driver: Ocean warming → Stressor: Altered salmon migration timing → Impact: Reduced food security for Indigenous communities → Response: Fisheries co-management, habitat conservation

Creating a conceptual model like this in the assessment would help clarify the most critical intervention points for the Forest Service and facilitate cross-department collaboration on addressing climate stressors.

Example Situation Model for Watershed Site

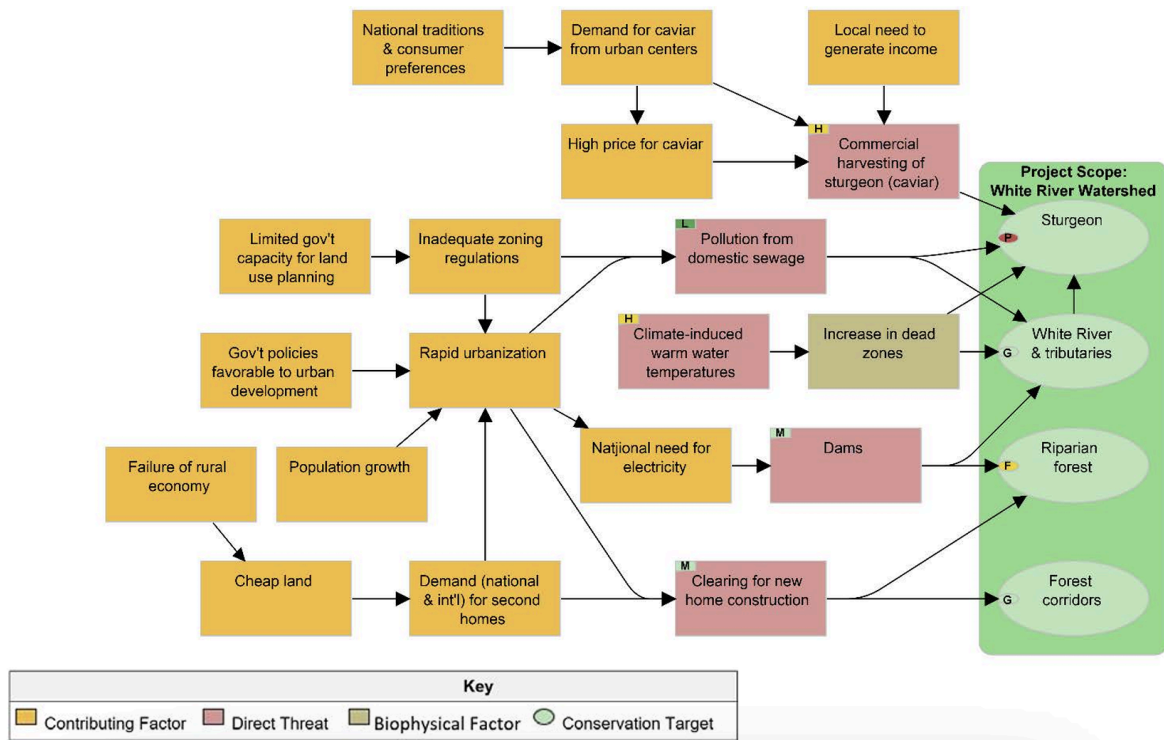


Figure 2. An illustrative situation model outlining the intended outcome, direct threats, and contributing factors.⁹⁹

2. Developing a Results Chain for Actionable Strategies

A results chain is a logical sequence that outlines how specific management actions lead to measurable programmatic outcomes. The Forest Service would benefit from

⁹⁹ Image from: Conservation Measures Partnership, *Open Standards for the Practice of Conservation*, Version 4.0 (Bethesda, MD: Conservation Measures Partnership, 2020), 12.



defining key intervention strategies and their expected results, ensuring that actions taken are evidence-based and trackable over time.

For example, a results chain for climate-adaptive forest management could look like this:

Problem: Warming temperatures and increased windthrow are reducing forest resilience.

Strategy: Implement climate-adaptive forest management (e.g., selective harvest, enhanced buffer zones, old-growth conservation).

Expected Results:

- Short-term: Increased canopy retention, reduced windthrow vulnerability.
- Medium-term: More stable microclimates, better habitat for climate-sensitive species.
- Long-term: Enhanced forest resilience, increased carbon sequestration.

A results chain for Indigenous-led climate adaptation could look like this:

Problem: Loss of culturally significant species (e.g., cedar, salmon, berries) due to climate stress.

Strategy: Expand co-management with Indigenous communities.

Expected Results:

- Short-term: Increased monitoring and TEK integration in climate adaptation plans.
- Medium-term: Protection of traditional harvesting sites.
- Long-term: Sustainable resource availability for Indigenous communities.

Including these results chains in the assessment would provide the Forest Service with a structured roadmap for implementing and evaluating climate adaptation strategies.

Integrating the Framework Across Other Assessments

Beyond just the *Draft Drivers, Stressors and Climate Change Assessment*, this framework could provide a unifying approach to integrating other objectives, particularly regarding:

- Sustained Yield Limit (SYL): Establishing a structured approach to contextualizing SYL with projected activities and identifying how timber and non-timber activities intersect with climate adaptation efforts.



- Carbon Sequestration Strategies: Aligning Carbon Stocks and Timber Resources assessments with climate mitigation goals by defining measurable carbon retention and sequestration indicators.
- Adaptive Harvest Planning: Using the results framework to link sustainable timber harvest objectives with resilience-based management, ensuring long-term economic and ecological viability.
- Biodiversity and Cultural Resource Management: Ensuring that actions taken in the *Tongass as an Indigenous Place* assessment are contextualized within a larger climate adaptation plan.

Conclusion & Recommendations

To enhance the Drivers of Climate Change assessment, we recommend:

1. **Developing a Situational Model:** Clearly mapping climate drivers, stressors, impacts, and management interventions.
2. **Building Results Chains:** Outlining how specific management actions lead to measurable climate adaptation outcomes.
3. **Defining Key Indicators:** Establishing quantifiable metrics to track the effectiveness of climate adaptation strategies.
4. **Implementing Adaptive Management:** Creating a structured framework for ongoing monitoring, evaluation, and learning.
5. **Integrating the Framework Across Assessments:** Providing a structured approach to assessing Indigenous autonomy and collaboration, timber yields, non-timber activities, carbon sequestration, subsistence, and species of conservation concern.

By incorporating these elements, the Draft Drivers, Stressors and Climate Change Assessment assessment would transition from a descriptive document to a strategic tool, equipping the Forest Service with the foundation needed to plan, implement, and measure effective climate adaptation programming.

Final Recommendations

On behalf of our members and supporters, we appreciate your thoughtful consideration of our comments in further strengthening this already impressive undertaking into a more actionable and comprehensive assessment that will in turn inform the forthcoming Needs for Change document. We hope that incorporating these substantive insights will support the Forest Service in planning activities that enhance



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the predictive validity of management outcomes for the communities that rely on our forests while ensuring the adaptability needed to respond to changing conditions.

Thank you,

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