

**CENTER FOR BIOLOGICAL DIVERSITY
SOUTHEAST ALASKA CONSERVATION COUNCIL
ALASKA WILDERNESS LEAGUE**

April 12, 2019

Paul Ray, Acting Administrator
Office of Information and Regulatory Affairs, Office of Management and Budget
Eisenhower Executive Office Building
1650 Pennsylvania Ave., NW, Room 262
Washington, DC 20503
Email: Paul_Ray@omb.eop.gov; OIRA_submission@omb.eop.gov

Re: OIRA Should Consider the U.S. Department of Agriculture’s Proposed Amendment to the Roadless Rule in Alaska to Be a Significant Rulemaking Pursuant to E.O. 12,866.

Dear Acting Administrator Ray:

On August 30, 2018, the U.S. Department of Agriculture (USDA) published notice of intent to initiate a “public rulemaking process to address the management of inventoried roadless areas on the Tongass National Forest within the State of Alaska,” also known as the Alaska Roadless Rule.¹ The proposed rulemaking would amend the 2001 Roadless Area Conservation Rule, 36 C.F.R. 294.10 - .14, 66 Fed. Reg. 3,244 (Jan. 12, 2001). The USDA did not include the proposed Alaska Rule on the Unified Agenda of Regulatory Actions for Fall 2018.²

Because the Alaska Roadless Rule meets the test for a “significant regulatory action” as defined in Executive Order 12,866, it must be reviewed by Office of Information and Regulatory Affairs (OIRA) pursuant to that Order.³ Prior Democratic and Republican administrations alike have concluded that roadless rules – including the 2001 Roadless Area Conservation Rule, and every major revision to it – constituted “significant regulatory action” pursuant to E.O. 12,866. In addition, the Alaska Roadless Rule will likely meet the Executive Order’s monetary criteria because it could result in more than \$100 million per year in damage to the natural resource values of the Tongass National Forest, North America’s largest temperate rain forest. The rule will have a materially adverse impact on the two largest private sectors of Southeast Alaska’s economy – tourism and commercial fishing. The rule is likely to materially adversely affect Tribal communities in Southeast Alaska that rely on Tongass roadless areas for their subsistence and identity. The rule will adversely impact the environment in a material way by removing the

¹ 83 Fed. Reg. 44,252 (Aug. 30, 2018).

² See Unified Regulatory Agenda for USDA, Fall 2018, available at <https://bit.ly/2XMI9Qn> (last viewed Apr. 12, 2019).

³ We understand that OIRA may have already determined that the rule constitutes a significant regulatory action. However, the Forest Service has declined to provide any documentation of such a determination.

2001 Roadless Rule’s prohibition on road construction and commercial timber harvest in large tree old growth rainforest, a dwindling and irreplaceable ecosystem. And it will raise novel legal or policy issues given the unique nature of the Tongass.

Designating the proposed Alaska Roadless Rule as a significant regulatory action will ensure that OIRA and the Forest Service comply with all applicable requirements of E.O. 12,866. In particular, it will provide OIRA the opportunity to press the Forest Service to justify or terminate the proposed rulemaking in light of the proposal’s overwhelmingly negative social and environmental costs, including its harmful impacts to Tribal communities.

I. LEGAL BACKGROUND: EXECUTIVE ORDER 12,866

In 1993, President Clinton issued Executive Order 12,866 to established procedures for “Regulatory Planning and Review.” E.O. 12,866 (Sep. 30, 1993), 58 Fed. Reg. 51,735 (Oct. 4, 1993). These procedures require OIRA to review certain regulations before they can be published.

OMB’s duty to review a rule hinges in part on whether the rule constitutes a “significant regulatory action.” E.O. 12,866 defines “significant regulatory action” as

any regulatory action that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; ...
- (4) Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive order.

E.O. 12,866, Sec. 3(f). The determination that a rulemaking is a “significant regulatory action” triggers a number of agency duties, including the responsibility that the agency prepare a cost-benefit analysis for the rule and submit it to OIRA, which OIRA must review within 120 days. E.O. 12,866, Sec. 6(a) & (b). For those rulemakings determined to have more than \$100 million per year in impact to the economy or to “adversely affect in a material way” the environment or tribal communities, the order requires a more rigorously-defined cost-benefit analysis. E.O. 12,866, Sec. 6(a)(2)(C).

II. THE 2001 ROADLESS AREA CONSERVATION RULE AND THE PROPOSED ALASKA ROADLESS RULE.

The Roadless Area Conservation Rule, adopted on January 12, 2001, limits road construction and timber harvest within the country’s last undeveloped National Forest lands. The Rule was designed to address three broad concerns. First, road construction, reconstruction, and timber harvest activities “directly threaten the[] fundamental characteristics [of roadless areas] through

the alteration of natural landscapes and fragmentation of forestlands.”⁴ These landscapes provide pure drinking water for millions, strongholds for imperiled wildlife, and scenic, undeveloped lands in an increasingly developed nation.⁵ Second, persistent budgetary shortfalls prevented the Forest Service from effectively managing more than a small portion of the road system, making additions costly and imprudent from a financial perspective.⁶ Third, persistent and broad public concern with the protection of wild forests had generated substantial uncertainty and time-consuming controversy, including litigation, over roadless area management.⁷ Although the Forest Service considered exempting the Tongass National Forest from the road building and logging bans, the agency ultimately concluded that the long term ecological benefit of protecting the Tongass outweighed any short-term socio-economic benefits.

After nearly two decades of failed legal challenges to the Roadless Rule, the State of Alaska submitted a petition last year to “exempt the Tongass National Forest” from the Rule.⁸ In response, the Forest Service proposed in August 2018 to adopt a rule that “accommodate[s] timber harvesting and road construction/reconstruction activities that are determined to be needed for forest management, [and] economic development opportunities;” in short, to eliminate the Roadless Rule’s prohibition on both road construction and commercial logging within the Tongass National Forest.⁹

III. THE PROPOSED ALASKA ROADLESS RULE IS A SIGNIFICANT REGULATORY ACTION UNDER EXECUTIVE ORDER 12,866.

The proposal to terminate the 2001 Roadless Rule’s protections within the Tongass National Forest meets the definition of a “regulatory action” under Executive Order 12,866.¹⁰ It does so because OIRA has considered every prior federal rulemaking for the last 18 years that would alter the management of roadless national forest lands – including a prior attempt to remove the Tongass National Forest from operation of the Roadless Rule, and responses to two other state petitions – to constitute a “significant regulatory action.”

In addition, a “significant” regulatory action includes actions “likely to result in ... an annual effect on the economy of \$100 million or more or adversely effect in a material way ... jobs, the

⁴ Forest Service, Roadless Area Conservation Rule, 66 Fed. Reg. 3244, 3266 (Jan. 12, 2001).

⁵ *Id.*, 66 Fed. Reg. at 3244–45.

⁶ *Id.*, 66 Fed. Reg. at 3245–46, 3266.

⁷ *Id.*, 66 Fed. Reg. at 3246, 3266.

⁸ State of Alaska, Petition for USDA Rulemaking to Exempt the Tongass National Forest from Application of the Roadless Rule (Jan. 19, 2018), available at https://www.fs.usda.gov/nfs/11558/www/nepa/109834_FSPLT3_4406959.pdf (last viewed Apr. 12, 2019), attached as Ex. 1; Forest Service, Notice of Intent to Prepare an Environmental Impact Statement, 83 Fed. Reg. 44,252 (Aug. 30, 2018).

⁹ 83 Fed. Reg. at 44,253.

¹⁰ Executive Order 12,866, § 3(d) (Oct. 4, 1993).

environment, ... or tribal governments or communities.”¹¹ A “significant regulatory action” also includes a rule that may “[r]aise novel legal or policy issues arising out of legal mandates.”¹² The proposed Alaska Roadless Rule meets each of these criteria for significance.

A. OIRA Has Concluded That the 2001 Roadless Rule and All Amendments to It Constituted “Significant Regulatory Action.”

In 2001, OIRA concluded that the Roadless Rule was “a major rule, because this rule may have an annual effect of \$100 million or more on the economy or, in some sectors, may affect productivity, competition, or jobs. Consequently, the rule is subject to OMB review under E.O. 12866.”¹³

OIRA has deemed every subsequent attempt to amend the rule to be significant, and prepared a regulatory impact analysis on each. The George W. Bush administration adopted a rule in 2003 (later set aside by the Ninth Circuit Court of Appeals) that temporarily exempted the Tongass National Forest from operation of the national Roadless Rule.¹⁴ The Forest Service stated that “because this final rule raises novel legal or policy issues arising from legal mandates or the President’s priorities, it has been designated as significant and, therefore, is subject to Office of Management and Budget (OMB) review in accordance with the principles set forth in E.O. 12866.”¹⁵ The fact that OIRA concluded a prior attempt to terminate Roadless Rule protection for the Tongass is powerful precedent that should guide OIRA’s analysis of the State of Alaska’s renewed attempt to do the same.

In 2008, the George W. Bush administration adopted a rule that modified Roadless Rule protections for national forests in Idaho, pursuant to that state’s petition. OMB determined that the Idaho Roadless Rule constituted a “significant regulatory action” “due to the level of interest in roadless area management,” and prepared a regulatory impact analysis for the final rule.¹⁶

In adopting amendments to the Roadless Rule in response to a petition from the State of Colorado in 2012, the Obama administration also designated the Colorado Roadless Rule “a significant regulatory action ... under section 3(f) of Executive Order 12866, and required OIRA review.”¹⁷ When a federal court in 2014 struck down a provision of the Colorado Roadless Rule

¹¹ *Id.* § 3(f)(1).

¹² *Id.* § 3(f)(4).

¹³ 66 Fed. Reg. 3244, 3267 (Jan. 12, 2001).

¹⁴ *Organized Village of Kake v. United States Dep’t of Agric.*, 795 F.3d 956 (9th Cir. 2015) (*en banc*).

¹⁵ 68 Fed. Reg. 75,136, 75,144 (Dec. 30, 2003).

¹⁶ 73 Fed. Reg. 61,456, 61,474 (Oct. 16, 2008).

¹⁷ 77 Fed. Reg. 39,576, 39,590 (July 3, 2012).

opening 20,000 acres of forest to road construction for coal mining,¹⁸ the Forest Service proposed to correct the errors identified by the court and to reinstate the stricken provision. OMB determined that the proposal to reinstate the coal mine exception constituted a significant rulemaking, finding that the rule might “raise novel legal or policy issues.”¹⁹

Because OIRA has concluded every prior attempt to modify the Roadless Rule – including a proposal to eliminate roadless protection for the Tongass, responses to two prior state petitions, and a proposal to modify roadless protections on a 20,000 acre area (a tiny percentage of what is at stake on the Tongass) – it would be arbitrary and capricious for OIRA to reach a different conclusion in response to the Alaska Roadless Rule.

B. The Alaska Roadless Rule Meets E.O. 12,866’s Definition of “Significant Regulatory Action.”

1. The Alaska Roadless Rule Is Likely to Have an Economic Impact of More Than \$100 Million Per Year or Materially Adversely Impact a Sector of the Economy and Jobs.

The Alaska Roadless Rule’s purpose is to eliminate the ban on road construction and commercial logging across more than nine million acres of the Tongass National Forest, and to allow such activities within some or all of that roadless forest. A reasonably foreseeable impact of the rule is thus logging and road construction in areas of pristine forest, including old growth ancient forest. Such actions will cause habitat destruction, loss of hunting opportunities, stream sedimentation (and thus destruction of fish habitat), air pollution, and a loss of carbon sequestration capacity. Destruction of forests and an increase in industrial activity will also harm Southeast Alaska’s economy, which increasingly is based on recreational activities, such as tourism, tour boats, and fishing.

The Alaska Roadless Rule is thus likely to meet thresholds requiring OIRA review because it will likely have: (1) an annual economic impact of more than \$100 million per year; and (2) a material adverse effect on sectors of the economy, specifically, those associated with recreation, tourism, and subsistence.

In evaluating the monetized, economic impact of a rule, OIRA should consider both a rule’s gross costs and benefits, whether costs result from compliance with new regulation or are social costs of deregulation. In its Regulatory Impact Analysis for the 2001 Roadless Rule, the Forest

¹⁸ See *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F.Supp.3d 1174 (D. Colo. 2014) (decision on merits); *High Country Conservation Advocates v. U.S. Forest Serv.*, 67 F.Supp.3d 1262 (D. Colo. 2014) (striking down coal mine exception to Colorado Roadless Rule).

¹⁹ Colorado Roadless Rule, Supplemental Final EIS (Nov. 2016) at E-56, available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd525072.pdf (last viewed Apr. 12, 2019). The Federal Register notice for the final coal mine exception rulemaking contains a different explanation: that “OMB determined that the regulation was economically significant.” 81 Fed. Reg. 91,811, 91,821 (Dec. 19, 2016). Whatever the rationale, OMB treated the coal mine exception rulemaking as “significant.”

Service analyzed the rule’s economic impacts to, among other values, “air and water quality, passive use, recreation, hunting and fishing, ...[and] non-timber forest products.”²⁰

The costs of opening the Tongass’s roadless forest to road construction and commercial logging will include:

- Costs due to damage to ecosystem services, including water quality, which protects water-based recreation.²¹ The Forest Service recognizes that “[f]orests provide a full suite of goods and services that are vital to human health and livelihood, natural assets we call ecosystem services,” and that destruction of forests can degrade the value of those valuable services.²²
- Costs to “passive use” values, including existence values, which “are associated with things, places, or conditions that people value simply because they exist, without any intent or expectation of using them.”²³ The Forest Service concluded there is “a significant passive use value for natural areas in Alaska,” because Americans are willing “to pay more for protecting natural areas” there.²⁴
- Costs to recreation, especially tourism, due to the destruction of scenic areas, stream pollution, damage to salmon habitat and the like from road-building and logging. A 2018 study concluded that tourism was the largest private economic sector in Southeast Alaska in terms of employment, resulting in 12 times more earnings and more than 20 times greater total employment than the timber industry.²⁵

²⁰ See U.S. Forest Service, *Regulatory Impact Analysis for the Roadless Area Conservation Rule* (Jan, 5, 2001) at 15, available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsm8_035785.pdf (last viewed Apr. 12, 2019).

²¹ *Id.* at 17 (addressing the economic benefits of barring logging in roadless forest, including that “[t]he prohibitions of the [2001] Roadless Rule would likely maintain higher water quality in comparison to activities that would take place under the baseline. As a result, water from National Forest System lands used for municipal drinking supplies will not require increased treatment. Also, the benefits of water-based recreation will not be adversely impacted in these areas”). See also letter of S. Culliney, National Audubon Society to Secretary Perdue, USDA (Oct. 15, 2018) at 4-6 (detailing existence values), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4469835 (last viewed Apr. 12, 2019), and attached as Ex. 2.

²² U.S. Forest Service, *Ecosystem Services*, available at <https://www.fs.fed.us/ecosystemservices/> (last viewed Apr. 12, 2019), and attached as Ex. 3.

²³ *Regulatory Impact Analysis for the Roadless Area Conservation Rule* (2001) at 17.

²⁴ *Id.* at 18.

²⁵ Rain Coast Data, *Southeast Alaska by the Numbers 2018* (Sep. 2018), available at <http://www.raincoastdata.com/sites/default/files/Southeast%20Alaska%20by%20the%20number%202018%20updated%20Sept%202025.pdf> (last viewed April 12, 2019), and attached as Ex. 4.

- Costs attributable to the logging projects themselves, which have, for years, cost the Forest Service (and taxpayers) tens of millions of dollars more to prepare than the value of the timber. For example, a 2016 Government Accountability Office report concluded that the Tongass timber program cost taxpayers an average of \$11.4 million per year over and above the revenue from logging during the period 2005-2014; and this figure underestimates losses to taxpayers because it omits additional expenditures for road construction and maintenance associated with logging.²⁶ In 2016, a Forest Service EIS estimated those losses would continue into the future, even when the agency used estimates of the price buyers would be willing to pay for timber that were about four times higher than historical prices.²⁷
- The social cost of carbon associated with the logging and transport of timber, and attributable to the destruction of carbon sinks, given that logging will eliminate older forests which are more effective at carbon sequestration than younger ones. In 2016, the Forest Service concluded that scientific studies infer that “past harvests and management of the [Tongass National] Forest has likely resulted in a net release of carbon to the atmosphere due in part to the practice of harvesting of old-growth timber on the Forest.”²⁸ Forest Service research scientists conclude that the Tongass may be responsible for 10%-12% of all carbon stored in the national forest system.²⁹ A 2016 report noted “the global importance of the Tongass as a carbon sink,” and concluded that logging on the Tongass proposed in a then-draft forest plan (which assumed no logging in roadless areas) “would result in a ‘social cost of carbon’ conservatively estimated at >\$100 million annually in global warming damages by

²⁶ See Government Accountability Office, *Tongass National Forest: Forest Service's Actions Related to Its Planned Timber Program Transition*, Report GAO-16-456 (Apr. 2016) at page 7, available at <https://www.gao.gov/assets/680/676788.pdf> (last viewed Apr. 12, 2019), and attached as Ex. 5.

²⁷ See Taxpayers for Common Sense, *Cutting the Tongass Timber Plan Down to Size* (Sep. 27, 2016), available at <https://www.taxpayer.net/energy-natural-resources/cutting-tongass-timber-plan-down-to-size/> (last viewed Apr. 12, 2019), and attached as Ex. 6. See also letter of R. Alexander, Taxpayers for Common Sense to Alaska Roadless Rule (Oct. 25, 2018) at 1-2 (collecting data showing taxpayers’ losses), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4470751 (last viewed Apr. 12, 2019), and attached as Ex. 7; letter of D. Jenkins, Conservatives for Responsible Stewardship to Secretary Perdue, USDA (Oct. 15, 2018) at 2–3 (same), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4471413 (last viewed Apr. 12, 2019), and attached as Ex. 8.

²⁸ U.S. Forest Service, *Tongass National Forest Plan Amendment, Final Environmental Impact Statement* (June 2016) at 3-16, excerpts attached as Ex. 9; see also *id.* at 3-13 – 3-16 (discussion of carbon sequestration on the Tongass).

²⁹ M.C. Martin, *From rock to forest: Southeast’s carbon sink*, Juneau Empire (Feb. 19, 2016), available at <https://www.juneauempire.com/life/from-rock-to-forest-southeasts-carbon-sink/> (last viewed Apr. 12, 2019), and attached as Ex. 10.

the end of the century.”³⁰ The monetary value of Tongass forest as a carbon sink is demonstrated by the fact that the California Air Resources Board certified a Sealaska project to protect 165,000 acres of forest in Southeast Alaska as a carbon bank.³¹

These costs have the potential to reach over \$100 million per year. The Alaska Roadless Rule thus meets the significance threshold of E.O. 12,866.

Even if those annual costs do not exceed \$100 million, opening old growth roadless forests in the Tongass to road construction and commercial logging will cause material adverse effects to the tourism industry in Southeast Alaska. As noted, the tourism industry is the leading employer in the region. That industry relies on the pristine nature of undisturbed roadless lands which draws cruise ship visitors, anglers, hunters, and wildlife viewers from across the globe. Allowing road construction and commercial logging within some or all of the Tongass’s remaining roadless areas threatens to materially damage that tourism industry, as numerous business owners have warned.

Fore example, Hunter McIntosh, President of The Boat Company, a “small cruise vessel eco-tour operator,” stated in comments opposing the Alaska Roadless Rule:

The visitor products industry is the largest, growing private sector economy in the region and requires guided public access to unroaded and intact or recovering forest ecosystems in remote areas. The Roadless Rule ensures a supply of these areas to meet growing market demand for visitor products and is the most sensible ecological and economic policy for 21st century southeast Alaska. Every small cruise operator and sport fishing guide commenting on this proposal to date supports the [2001] Roadless Rule.

However, the Forest Service now proposes to undo this fiscally responsible, pro-business policy.... The supply of inventoried roadless areas provides a significant comparative advantage to the 21st century southeast Alaska economy relative to other destinations. Demand is high, and there is a shrinking supply of undeveloped areas for outdoor adventure....

³⁰ D. DellaSala, Geos Institute, *The Tongass Rainforest as Alaska’s First Line of Climate Change Defense and Importance to the Paris Climate Change Agreements* (2016), available at <https://forestlegacies.org/images/projects/tongass-report-emissions-2016-01.pdf> (last viewed Apr. 12, 2019) at 1-2, and attached as Ex. 11.

³¹ Sealaska, *Sealaska Will Protect Thousands of Acres of Forest in the Tongass for Over 110 Years* (Mar. 27, 2018), available at <https://sealaska.com/news/item/2018-03-27/sealaska-will-protect-thousands-acres-forest-tongass-over-110-years> (last viewed Apr. 12, 2019) and attached as Ex. 12.

Any measure that reduces Roadless Rule restrictions on timber harvest and road construction activities is likely to displace the guided public and associated business activity.³²

A CEO and owner of a large Southeast Alaska cruise ship business opposing changes to the 2001 Roadless Rule made similar points:

Undeveloped, unroaded, pristine places are an essential part of Southeast Alaska's globally-recognized tourism brand. Demand for recreation and tourism in the Tongass National Forest is increasing. Roadless areas protect recreation resources that are scarce both nationally and worldwide....

UnCruise Adventures is concerned about maintaining the recreation values of the areas we actively use. These values include solitude from other users, undeveloped scenery, intact ecosystems, healthy fish and wildlife, and permitted access and tr[ai]ls.³³

Keegan McCarthy, a Juneau resident and owner of three businesses – a big game hunting guiding operation permitted in the Tongass, a small ship cruise operation conducting sightseeing/fishing charters, and a seiner/crab vessel operating in Southeast Alaska – paints a stark picture of economic damage the Alaska Roadless Rule could cause:

I have upwards of \$5m invested in my business. Money invested assuming I would have a realistic opportunity to continue to run a business that operates in pristine environments. My clients do not come to see clear cuts and roads. They do not like to hike old logging roads, they can all notice the difference as we pass the devastated areas on Kuiu and Kupreanof where logging has occurred. My hunters, the most conservative pro development group in the world[,] all come to see the last remaining virgin forest in America and comment on it's beauty and are thankful they have a place left to hunt. To risk destroying this directly puts businesses like mine in jeopardy, leaving me no way to pay my debts and provide for my family and my employees.³⁴

³² Letter of H. McIntosh, The Boat Company to C. French, U.S. Forest Service (Oct. 2018) at 1–2 (citation omitted), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4471128 (last viewed Apr. 12, 2019) and attached as Ex. 13.

³³ Letter of Capt. D. Blanchard, Owner & CEO, UnCruise Adventures to S. Perdue, USDA Secretary (Oct. 15, 2018) at 2, 3, available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4469945 (last viewed Apr. 12, 2019) and attached as Ex. 14.

³⁴ Letter of K. McCarthy, Master Guide, Coastal Alaska (Oct. 14, 2018) at 1, available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4453013&project=54511 (last viewed Apr. 12, 2019) and attached as Ex. 15.

Other businesspeople operating in Southeast Alaska raised similar concerns.³⁵

Further, logging and road construction will materially adversely affect the commercial fishing industry, the second-most-important economic sector in Southeast Alaska. The Sitka-based Alaska Longline Fishermen’s Association, whose members “participate in halibut and sablefish longline fisheries and in all southeast Alaska commercial salmon fisheries,” requested that the Forest Service “cease planning” on the proposed Alaska Roadless Rule because of the potential for significant, damaging impacts on the businesses it represents.

Recent declines in salmon fishery outputs have resulted in serious risks to the economic viability of commercial fishermen throughout southeast Alaska. Any development that threatens the recovery of these fish – or worse, further diminishes the population – risks long-term adverse impacts on southeast Alaska fisheries. Salmon populations have diminished throughout the species’ range because of high levels of development in freshwater habitat throughout the west Pacific coast of North America. There are numerous scientific studies linking those declines in salmon productivity to logging road density and large scale

³⁵ See letter of R. Burke, Bluewater Adventures (Sep. 10, 2018) (author who has operated “nature cruises in Southeast Alaska since 1993” on permit with U.S. Forest Service supports retaining Roadless Rule to protect brown bear habitat that customers come to see) available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4415066&project=54511 (last viewed Apr. 12, 2019) and attached as Ex. 16; letter of G. Schlachter, Expedition Broker (Oct. 15, 2018) (fly fisher guide, and broker to over 40 yachts and small ships opposing Alaska Roadless Rule because watersheds at risk under the proposal “support our sport and commercial fisheries and tourism industries that make up ¼ of Southeast Alaska’s jobs and contribute over \$2 billion to our regional economy annually”), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4454372&project=54511 (last viewed Apr. 12, 2019) and attached as Ex. 17; letter of B. Janes, Gastineau Guiding Co. (Oct. 15, 2018) (23-year tour operator at Mendenhall Glacier Recreation Area stating that tourists visit the area to experience “untouched, undeveloped” wilderness that roadless areas provide) available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4454848&project=54511 (last viewed Apr. 12, 2019) and attached as Ex. 18; letter of A. Decker, Glacier Guides, Inc. (Oct. 15, 2018) (president of family-run, yacht-based hunting and fishing guiding company asserting that opening roadless areas to logging and road construction will disrupt hunting and put small outfitter operations out of business), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4454394&project=54511 (last viewed Apr. 12, 2019) and attached as Ex. 19; letter of C. Smith, Northwest Navigation (Oct. 12, 2018) (VP of small cruise ship tour business in Southeast Alaska stating that existing Roadless Rule “helps my business and other marine-based businesses like mine grow and expand,” and that “I see increased road building as a detriment to growth in tourism to Alaska”), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4448885&project=54511 (last viewed Apr. 12, 2019) and attached as Ex. 20.

clearcutting. Because southeast Alaska supports one of the largest remaining sustainable fisheries, it is critical to maintain the remaining intact habitat in order to provide stability to the regional economy....

The impacts of losing additional spawning and rearing habitat in southeast Alaska aquatic ecosystems are substantial given current population vulnerabilities. Further declines in salmon productivity may result in prolonged periods of fishery closures, risking the viability of hundreds of Alaska resident-owned small fishing businesses, southeast Alaska salmon processors, and the communities and support businesses that rely on the salmon economy.³⁶

In sum, because the Alaska Roadless Rule will likely have an annual effect on the economy of \$100 million or more, and will adversely affect in a material way the economy of Southeast Alaska, particularly the important tourism and fisheries sectors, OIRA should conclude that the proposed rule constitutes a “significant regulatory action” per E.O. 12,866.

2. The Alaska Roadless Rule Is Likely to Adversely Affect in a Material Way Tribal Governments or Communities.

The proposed rule is likely to materially adversely affect Tribal communities in Southeast Alaska that rely on Tongass roadless areas for subsistence, clean water, and their way of life. At least two such communities have stated their opposition to the Alaska Roadless Rule for these reasons.

The Organized Village of Saxman, a federally-recognized tribe in Southeast Alaska, adopted a resolution in October 2018 recognizing that roadless areas of the Tongass have been in the care of their people for millennia and “not only provide Alaska Native people with food, they essentially define who we are and where we come from.”³⁷ The resolution discusses the “serious and long-lasting Tribal implications from any reduction in current Roadless Rule protections,” “strongly supports lasting protection for all inventoried roadless areas within the Tongass National Forest as provided in the [2001] Roadless Rule,” and states that the only change to the Roadless Rule that the Village can support is the inclusion of an additional 350,000 acres to the lands protected by the 2001 Roadless Rule.³⁸ Two other federally-recognized Southeast Alaska

³⁶ Letter of L. Behnken, Alaska Longline Fishermen’s Ass’n to C. French, U.S. Forest Service (Oct. 14, 2018), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4470508 (last viewed Apr. 12, 2019) and attached as Ex. 21.

³⁷ Organized Village of Saxman, Resolution #2018-10-223 (Oct. 11, 2018), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4470750 (last viewed Apr. 12, 2019) and attached as Ex. 22.

³⁸ *Id.* at 4.

Tribes, the Organized Village of Kake and Craig Tribal Association, also enacted resolutions strongly supporting lasting protection for all inventoried roadless areas on the Tongass.³⁹

3. The Alaska Roadless Rule Is Likely to Adversely Affect in a Material Way the Environment.

Opening Tongass National Forest roadless lands to road construction and logging is likely to have significant adverse effects on the environment, largely because roadless areas of the Tongass shelter much of the remaining biodiversity-rich, large-tree old growth temperate rainforest in North America. Because of their value as lumber, large trees are the very type likely to be targeted for logging should the Alaska Roadless Rule be approved. Once these forests are cut down, they are unlikely to be restored for centuries.

The Forest Service has noted the importance and fragility of the Tongass National Forest's old growth and the roadless areas that protect it, and the damage to biodiversity posed by opening these roadless forests to logging:

The majority of species in the ecoregion are old-growth dependent or disturbance sensitive species, and the majority of habitat and strongholds supporting these species exists on NFS [National Forest Service] lands. Because the majority of lands in Southeast Alaska outside the Tongass have been intensively managed for timber harvest, the Tongass plays a critical role in conserving the biodiversity in Southeast Alaska and the Northern Pacific Coast ecoregion.⁴⁰

The 2000 Final EIS evaluating the impacts of the 2001 Roadless Rule concluded that exempting the Tongass from that Rule (as the Alaska Roadless Rule would do) would, “[o]ver the long term..., when considering the reasonably foreseeable increase in habitat fragmentation and loss of connectivity in adjacent landscapes, pose a higher risk of adverse cumulative effects to biodiversity.”⁴¹ In evaluating the 2001 Roadless Rule's protections for the Tongass, the agency also acknowledged:

the forest's high degree of overall ecosystem health is due to its largely undeveloped nature including the quantity and quality of inventoried roadless areas and other special designated areas. Alternatives that would immediately

³⁹ Organized Village of Kake, Resolution No. 2018-04 (Oct. 10, 2018), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4479232 (last viewed Apr. 12, 2019) and attached as Ex. 23; Craig Tribal Association, Resolution 2018-037 (2018), available at https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4469884 (last viewed Apr. 12, 2019), and attached as Ex. 24.

⁴⁰ U.S. Forest Service, Roadless Area Conservation Rule, Final EIS (2000) at 3-390. *See also* letter of S. Culliney, National Audubon Society (Ex. 2) at 1-4 (describing values of large tree old growth and the threat posed by the Alaska Roadless Rule to such forests).

⁴¹ U.S. Forest Service, Roadless Area Conservation Rule, Final EIS (2000) at 3-389.

prohibit new road construction and timber harvest in all inventoried roadless areas would most effectively protect those values. Other alternatives that exempt, delay, or limit the application of the prohibitions would offer less protection.⁴²

In its 2001 rulemaking, the Forest Service ultimately rejected leaving Tongass roadless areas open to logging and road construction because of the “long-term ecological benefits to the nation of conserving these inventoried roadless areas,” benefits that would be lost if the Alaska Roadless Rule is adopted.⁴³

This site-specific conclusion is supported by many Forest Service and other scientific studies that have long found that road construction and logging in unroaded, forested landscapes has a plethora of damaging environmental impacts, because such actions: fragment habitat; render lands near roads inhospitable as habitat; cause erosion and sedimentation in streams; lead to the spread of exotic weeds and pollutants from tailpipes; increase the risk of poaching, roadkill, and human-caused wildfire ignition; and can result in degradation and looting of cultural sites, among other impacts.⁴⁴

The Alaska Roadless Rule thus meets the significance threshold per E.O. 12,866 because it is likely to materially adversely affect the environment.

4. The Alaska Roadless Rule Is Likely to Raise Novel Legal or Policy.

The Forest Service has repeatedly recognized and emphasized the unique nature of the Tongass National Forest in the agency’s rulemakings on roadless areas, and continues to do so, demonstrating the novel policy issues at play in the proposed Alaska Roadless Rule. The Tongass is the largest national forest, the largest landscape of temperate rainforest in the National Forest System, has a higher percentage of roadless acres (over 90 percent) than nearly any other national forest outside of Alaska, shelters unique endemic wildlife, and plays a critically important role in the local economy and in the culture of indigenous communities.⁴⁵ The Tongass comprises 80% of Southeast Alaska according to the Forest Service.⁴⁶

In preparing the 2001 Roadless Rule, the Forest Service treated the Tongass differently from all other National Forests, initially considering exempting the Tongass altogether, and then

⁴² 66 Fed. Reg. at 3,254 (Jan. 12, 2001).

⁴³ 66 Fed. Reg. at 3,255 (Jan. 12, 2001). *See also id.* at 3,254, 3,266 (“Allowing road construction and reconstruction on the Tongass National Forest to continue unabated would risk the loss of important roadless area values.”).

⁴⁴ *See, e.g.*, U.S. Forest Service, Roadless Area Conservation Rule, Final EIS (2000); U.S. Forest Service, *Forest Roads: A Synthesis of Scientific Information* (June 2000), available at https://www.fs.fed.us/eng/road_mgt/science.pdf (last viewed Mar. 12, 2019).

⁴⁵ *See* 83 Fed. Reg. 44,252, 44,252–53 (Aug. 30, 2018); U.S. Forest Service, Roadless Area Conservation Rule, Final EIS (2000) at 1-16 – 1-17 (noting unique timber management legal regime).

⁴⁶ 68 Fed. Reg. at 75,139 (Dec. 30, 2003).

analyzing several alternatives with different management regimes for that one forest.⁴⁷ The preamble to the Roadless Rule acknowledges the Tongass’s “unique and sensitive ecological character,”⁴⁸ and explains that proposals for certain timber sales would be allowed to proceed, unlike for all other forests, “because of the unique social and economic conditions where a disproportionate share of the impacts are experienced throughout the entire Southeast Alaska region and concentrated most heavily in a few communities.”⁴⁹

In 2003, the Bush administration proposed to reverse course and to exempt the Tongass from the 2001 Roadless Rule’s protections. The notice of proposed rulemaking stated that the “*unique situation* of the Tongass National Forest has been recognized throughout the Forest Service’s process for examining prohibitions in inventoried roadless areas.”⁵⁰ In finalizing the 2003 Tongass rulemaking, the Bush administration specifically concluded that the rule “raises novel legal or policy issues arising from legal mandates or the President’s priorities,” and so designated the rulemaking as significant and thus subject to OIRA review per E.O. 12866.⁵¹ The rule’s preamble underscores that the “unique situation of the Tongass has been recognized throughout the Forest Service’s process for examining prohibitions in inventoried roadless areas.”⁵² Again, it would be arbitrary for OIRA to conclude now that a similar proposal to terminate the Roadless Rule’s protection raises no such novel issues.

In its 2018 Notice of Intent to prepare an EIS on the Alaska Roadless Rule, the Forest Service asserted of the proposal’s purpose and need:

A long-term, durable approach to roadless area management is needed that accommodates the *unique* biological, social and economic situation in and around the Tongass National Forest.⁵³

Further, the State of Alaska’s petition seeks, and the Forest Service’s rulemaking will consider, exempting the Tongass from the 2001 Roadless Rule, which would place the Tongass in the novel position of being the only national forest without rules protecting roadless areas.⁵⁴

⁴⁷ 66 Fed. Reg. at 3,262 (Jan. 12, 2001) (stating that one of the two key decisions the Forest Service sought to answer with the Roadless Rule was “whether the proposed national prohibitions should be applied to the Tongass National Forest or modified to meet the *unique* situation on the Tongass.” (emphasis added)). *See also* 68 Fed. Reg. 75,136, 75,139 (Dec. 30, 2003).

⁴⁸ 66 Fed. Reg. at 3,254 (Jan. 12, 2001). *See also id.* (characterizing the Tongass’s ecological values as “extraordinary”).

⁴⁹ *Id.* at 3,255, 3,266.

⁵⁰ 68 Fed. Reg. 41,865, 41,867 (July 15, 2003) (emphasis added).

⁵¹ 68 Fed. Reg. 75,136, 75,144 (Dec. 30, 2003). *See supra* at 4.

⁵² 68 Fed. Reg. at 75,144 (Dec. 30, 2003).

⁵³ 83 Fed. Reg. 44,252 (Aug. 30, 2018).

⁵⁴ State of Alaska Petition (Ex. 1).

IV. CONCLUSION.

For the reasons stated above, we urge OIRA to conclude that the Alaska Roadless rulemaking is a significant regulatory action, one that must comply with the requirements for such actions pursuant to Executive Order 12,866.

Thank you for your attention to this matter. We look forward to your reply, and will contact you shortly to arrange a call to discuss this issue. Feel free to reach Mr. Zukoski at 303-641-3149 or via email at tzukoski@biologicaldiversity.org.

Sincerely,



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OIRA (Richard_p._theroux@omb.eop.gov)
Ken Tu, Regional Administrative Review Coordinator, U.S. Forest Service
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EXHIBIT 1

State of Alaska, Petition for USDA Rulemaking to Exempt the Tongass National Forest from
Application of the Roadless Rule (Jan. 19, 2018)



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Natural Resources

COMMISSIONER'S OFFICE

550 W 7th #1400
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Main: 907.269.8431
Fax: 907.269.8918

January 19, 2018

U.S. Department of Agriculture
Attention Sonny Perdue, Secretary of Agriculture
1400 Independence Avenue, S.W.
Washington, DC 20250

Dear Secretary Perdue,

Enclosed you will find a request from the State of Alaska to consider a petition for rulemaking on the applicability of the 2001 Roadless Rule to the Tongass National Forest in Alaska. The history of the exemption and the ensuing legal challenges are covered in detail in our petition and exhibits. The State also lays out clear and sound rationale for why an exemption should be addressed through the rulemaking process.

The State appreciates your interest in this topic. We see this as one of many significant opportunities to work with you to support a diverse and robust forest products sector in Southeast Alaska. Rebuilding this sector will create jobs and prosperity for our rural communities located in the Tongass National Forest.

The State looks forward to participating in the process and is available to answer questions you or your staff may have on this subject.

Sincerely,

A handwritten signature in cursive script that reads "Andrew Mack".

Andrew T. Mack
Commissioner

cc:

Bill Walker, Governor of Alaska
U.S. Senator Lisa Murkowski, Chairman, Senate Energy & Natural Resources Committee
U.S. Senator Daniel S. Sullivan
U.S. Representative Don Young
Tony Tooke, Chief USFS
Cathy Giessel, State Senator and Chair Senate Resources Committee
Geran Tarr, State Representative and Co-chair House Resources Committee
Andy Josephson, State Representative and Co-chair House Resources Committee

Before the Department of Agriculture
Washington, DC 20250

To: George Ervin "Sonny" Perdue, Secretary of Agriculture

From: The State of Alaska, Department of Natural Resources

Re: The Department of Agriculture Roadless Area Conservation Rule and
The 2016 Tongass National Forest Land and Resource Management Plan

Date: January 19, 2018

**STATE OF ALASKA
PETITION FOR USDA RULEMAKING TO EXEMPT THE
TONGASS NATIONAL FOREST FROM APPLICATION OF
THE ROADLESS RULE AND OTHER ACTIONS**

I. SUMMARY

In a 2003 Record of Decision (ROD) Ex. 1, the USDA promulgated a regulation (Tongass Exemption) exempting the Tongass National Forest (Tongass) from the Roadless Area Conservation Rule (Roadless Rule). In this ROD, the USDA provided in-depth analysis of the requirements and limitations of the Tongass Timber Reform Act (TTRA) and the Alaska National Interest Lands Conservation Act (ANILCA) if the Roadless Rule were applied to the Tongass. After this statutory analysis, the USDA concluded that the best way to implement the spirit and the letter of these laws was to exempt the Tongass from the Roadless Rule.

The USDA also concluded that exempting the Tongass was consistent not only with the intent of Congress, but also with sound management of the Tongass because roadless areas in the Tongass are adequately protected without adding the additional restrictions in the Roadless Rule. USDA stated that roadless areas are common, not rare in the Tongass and the vast majority of the 9.34 million acres of roadless areas have restrictions on road building and timber harvest irrespective of the Roadless Rule. Even without the Roadless Rule, only about four percent of the Tongass is designated as suitable for timber harvest. *See* ROD, Ex. 1.

In its decision to exempt the Tongass, USDA weighed the value of imposing these unnecessary additional restrictions against the very significant social and economic costs to Southeast Alaska that were discussed in depth in the 2001 Roadless Rule decisional documents. When USDA reconsidered the same facts in this second rulemaking that it had considered in 2001, the USDA this time concluded that the needs of the people of

Alaska outweighed adding more restrictions when roadless areas in the Tongass are adequately protected without the Roadless Rule.

After environmental interest groups challenged the Tongass Exemption in 2009, the USDA aggressively defended the rule in its 2010 opening brief in the Federal District Court for the District of Alaska. *See* USDA Brief Ex. 2. USDA argued that “the Tongass Exemption was a well-reasoned decision, supported by the evidence” and that after reweighing the same economic, social and environmental factors considered in the 2001 ROD, USDA concluded that “the roadless values on the Tongass could be protected and social and economic impacts minimized by exempting the Tongass from the Roadless Rule. USDA Brief at 1-4.

The District Court nevertheless invalidated the Tongass Exemption, but upon appeal, a three-judge panel of the Ninth Circuit Court of Appeals reversed and upheld the Exemption. However, in a 6-5 *en banc* decision, the Ninth Circuit struck down the Tongass Exemption on a procedural ruling, holding that the USDA failed to adequately explain its change of position from the 2001 Roadless Rule to the 2003 Tongass Exemption. *See En Banc* Opinion, Ex.3. The Court did not find any substantive legal infirmities with the Tongass Exemption, that is, the Court did not hold that the USDA analysis or rationale could not support exempting the Tongass, or that the USDA reached the wrong decision, but only that USDA failed to provide an adequate explanation of its change of position from 2001. No judge questioned the fact that the USDA had a right to change position on exempting the Tongass, if the change was adequately explained. *Id.*

The rationale USDA provided for exempting the Tongass in the 2003 ROD and again in the 2010 USDA Brief remains valid today. The extensive damage resulting from the application of the Roadless Rule to the economic and social fabric of Southeast Alaska remains as real today as it was 15 years ago, while the Tongass roadless values remain more than adequately protected without the Roadless Rule. Therefore, for the reasons more fully explained below, the State of Alaska (State) respectfully requests that the Secretary of Agriculture grant this petition and direct the USDA and USFS to immediately undertake a rulemaking to consider once again exempting the Tongass from the Roadless Rule.

In addition, the State requests that the Secretary also direct the USFS to undertake a revision to the 2016 Tongass Land & Resource Management Plan (TLMP). In a recent amendment to the TLMP, the USFS implemented the Roadless Rule by including many of the most restrictive provisions and prohibitions of the Roadless Rule into the fabric of the TLMP. As a result, even if the Tongass is once again exempted from the Roadless Rule, these Roadless provisions would remain in the TLMP and be independently applicable unless also removed from the TLMP. A Forest Plan amendment or revision under the 2012 USFS planning rules is the mechanism for the Executive Branch to

remove these provisions. The State also requests that the provisions inserted into the TLMP in 2016 requiring a rapid transition from old growth to young growth timber harvest also be revised.

II. HISTORY OF THE TONGASS EXEMPTION

Controversy over federal management of the Tongass goes back many decades. The most relevant history regarding whether to exempt the Tongass from the Roadless Rule begins at the turn of the 21st Century in the waning days of the Clinton Administration. Entire books have been written on the high-profile policy and legal battles over the Tongass spanning many decades, and the basic facts have been set forth in many legal briefs and judicial decisions. *See e.g.* USDA Brief Ex.2 at 1-5; State Brief in the Federal District Court for the District of Columbia (State Roadless Rule Brief), Ex. 4 at 1-3; and *State of Alaska v. USDA*, case 11-1122 RLJ, Opinion filed 9/20/17, Ex. 5 at 7-15. Therefore, only a very brief summary is presented here in addition to the more comprehensive discussions in the attached exhibits.

Beginning with an interim rule in 1999, as the USDA developed the Roadless Rule, the administration's preferred approach was to exempt the Tongass or to limit its application. USDA Brief, Ex. 2 at 1-2. It was not until the final decision in the 2001 ROD, at the very conclusion of the rulemaking process, that USDA unexpectedly fully and immediately applied the Roadless Rule to the Tongass. *Id.*

During the rulemaking process, USDA recognized that the Tongass would be so uniquely and severely impacted by the Roadless Rule that what was effectively a separate rulemaking within a rulemaking was conducted for the Tongass. USDA recognized that the Roadless Rule would severely interfere with seeking to meet timber demand as required by Tongass Timber Reform Act, that the social and economic impact on Southeast Alaska would be severe, and that adequate protections were in place to protect the environmental values of the Tongass without the Roadless Rule. *Id.* at 2-5. These were the rationale stated throughout the process for choosing limited, if any, application to the Tongass as the USDA preferred alternative; at least until the surprise ending when in the final ROD the Roadless Rule was made immediately fully applicable to the Tongass. *Id.* For example, the USDA preferred alternative in the draft environmental impact statement was "Tongass exempt". *Id.*

Many lawsuits immediately followed promulgation of the Roadless Rule, including one by the State of Alaska challenging its application to Alaska national forests. In 2003, a temporary rule exempting the Tongass (Tongass Exemption) was promulgated to satisfy a settlement of Roadless Rule litigation between USDA and the State of Alaska. It is this temporary rule that was invalidated by the Federal District Court in Alaska in 2011. The rulemaking to promulgate permanent exemptions for both

national forests in Alaska – also a term of the settlement agreement – was never commenced after the 2005 State Petitions Rule replaced and effectively (at least temporarily) repealed the Roadless Rule nationwide. *Id.*

However, a federal court in California invalidated the State Petitions rule in 2006 and reinstated the Roadless Rule nationwide even though it had been invalidated by a federal court in Wyoming and was enjoined nationwide. The reinstatement of the Roadless Rule was, however, explicitly made subject to the Tongass Exemption rule, and therefore the Tongass remained exempt until the District Court in Alaska invalidated it in 2011. *Id.*

The Tongass Exemption rule then remained in litigation until the United States Supreme Court on March 29, 2016 declined the State's Petition for Certiorari for review of the Ninth Circuit *en banc* decision invalidating the Tongass Exemption rule due to the argued inadequate explanation of USDA's change in policy.

Following the loss of the Tongass Exemption, the State and many supporting intervenors continue to appeal the Roadless Rule and the Roadless Rulemaking decision to apply the rule to the two national forests in Alaska in the United States Court of Appeals for the District of Columbia Circuit. If the Court rules in the favor of the State, three different remedies are possible depending upon which claim(s) the case is decided; the Roadless Rule could be invalidated nationwide, it could be invalidated as applied to Alaska or it could be invalidated solely as applied to the Tongass.

III. CONTINUING RATIONALE FOR EXEMPTING THE TONGASS

A. Good Policy

Rationales for exempting the Tongass from the Roadless Rule in a new USDA rulemaking are not entirely equivalent to Alaska's legal claims and arguments challenging the Roadless Rule in federal court. The most important difference is that USDA can enact or change policy via a rulemaking whether such action is legally mandated or just good policy as determined by the agency. The *en banc* decision of the Ninth Circuit striking down the Tongass Exemption did not in any way cast doubt on USDA's authority to set policy on the Roadless or on the Tongass other than to clarify the extent to which the agency must explain its rationale in the record of decision. *See En Banc Opinion Ex. 3.*

Therefore, the first and most compelling reason that USDA should grant this petition to undertake a rulemaking to restore an exemption for the Tongass is that it remains good policy. The 2010 USDA brief (Ex. 2) supporting the policy decision to exempt the Tongass remains as persuasive today as it was then. No federal court has

opined that there was any issue with the policy choice to exempt the Tongass, but instead ruled only on the procedural flaw of not including a sufficient explanation for the change in policy from the 2001 ROD. The State is therefore requesting that USDA now correct this procedural problem through a new rulemaking and in effect reinstate the Tongass Exemption based on the same sound policy decision it made in 2003. All of the rationales that USDA offered for exempting the Tongass in the 2003 ROD remain valid today. ROD Ex. 1.

B. Compliance with Federal Law

In 2003, USDA offered rationales for exempting the Tongass as policy decisions that the State contends are legal requirements that mandate a Tongass or Alaska exemption. In particular, this includes compliance with ANILCA and the TTRA.

USDA devoted a considerable portion of the 2003 ROD to discussion of these two statutes and ultimately stated that the Tongass Exemption Rule

“reflects the Department’s assessment of how to best implement the letter and spirit of congressional direction along with public values, in light of the abundance of roadless values on the Tongass, the protection of the roadless values already included in the Tongass Forest Plan, and the socioeconomic costs to the local communities of applying the roadless rule’s prohibitions.” Ex. 1 at 75142.

USDA further stated that ANILCA and the TTRA “provide important congressional determinations, findings, and information relating to management of National Forest System lands on the Tongass.” *Id.*

More specifically, USDA explained that in ANILCA Congress set aside another 5.5 million acres of the Tongass wilderness and found that this additional wilderness set aside represents “a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition” and that no additional conservation areas will be needed in the future on the Tongass. *Id.* Congress attempted to prevent the Executive Branch from circumventing this directive by prohibiting “future executive branch action which withdraws more than five thousand acres, in the aggregate, of public lands within the State of Alaska” without the approval of Congress. 16 U.S.C. §3213(a).

There is a fine line between the USDA’s statement in the 2003 ROD that the Tongass Exemption implements “the letter and spirit of congressional direction” and the State’s legal argument in the current litigation that by failing to exempt the Tongass from the Roadless Rule USDA has violated ANILCA by withdrawing millions of acres from

more intensive use without the consent of Congress. State Roadless Rule Brief, Ex.4 at 43-44. USDA may view exempting the Tongass as policy to implement the letter and the spirit of congressional direction in ANILCA or as a legal mandate to comply with ANILCA. Either way, complying with congressional intent as set forth in ANILCA is a powerful rationale for a new rulemaking to restore the Tongass Exemption.

The TTRA presents a similar rationale for a new rulemaking. In 1990, Congress amended ANILCA with the TTRA, which included a directive to the USDA Secretary to “seek to provide a supply of timber from the Tongass National Forest, which (1) meets the annual market demand for timber and (2) meets the market demand for timber for each planning cycle” consistent with multiple use and sustained yield management and the requirements of the National Forest Management Act. ROD, Ex.1 at 75142. USDA analyzed the demand numbers for the Tongass timber and the effect of the road construction and timber harvest prohibitions of the Roadless Rule and concluded that “the roadless prohibitions operate as an unnecessary and complicating factor limiting where timber harvesting may occur.” *Id.* at 75141.

The State fully concurs with the USDA policy decision that further timber harvest restrictions were not necessary and complicated compliance with the TTRA directive to seek to meet timber demand. However, as with ANILCA, the State continues to argue in federal court that the timber harvest and road construction restrictions of the Roadless Rule limit the ability of the Tongass Forest Supervisor to plan and execute timber sales to the extent that it is impossible to even seek to meet timber demand. Intentionally tying your own agency’s hands with such unnecessary restrictions that ensure failure to meet timber demands is a violation of the TTRA provisions to seek to meet demand. The State’s full argument why the TTRA legally mandates a Tongass Exemption from the Roadless Rule is presented in the State Roadless Rule Brief, Ex. 4 at 38-43.

As with ANILCA, in 2003 USDA viewed an exemption as policy to implement the letter and the spirit of TTRA while the State determined that TTRA legally mandates an exemption. But again, implementing the directive of Congress is a powerful rationale for a new rulemaking under either analysis.

C. Compelling Case for Exemption Rulemaking

Addressing the serious socioeconomic consequences to Alaskans and complying with ANILCA and TTRA are all compelling rationale for a Tongass Exemption today, as they were in 2003. Other rationales offered by USDA in the 2003 ROD and supported by counsel in the 2010 USDA brief also remain valid today. As noted above, the Ninth Circuit did not invalidate the Tongass Exemption due to flawed rationales, but rather only because of an inadequate explanation for the change in policy. The State respectfully

submits this petition for a rulemaking to exempt the Tongass from the Roadless Rule in the interest of the socioeconomic well-being of its residents.

IV. CONTENT OF REQUESTED RULE

The Tongass Exemption Rule that was invalidated by the Ninth Circuit was a single sentence under 36 CFR § 294.14. The invalidated language in CFR § 294.14 can be replaced by new similar language as simple as: “This subpart does not apply to the Tongass National Forest.”

V. OTHER REQUESTED ACTION

In 2016, the USFS completed an extensive amendment process to the TLMP. Among the changes that were made to the TLMP, significant changes included the implementation of the Roadless Rule and the implementation of the Transition Strategy intended to rapidly shift timber harvest in the Tongass from primarily old-growth to young-growth timber. The State was among many objectors to this TLMP amendment based on a wide range of procedural issues and substantive issues in forestry, transportation and resource development. The State’s August 30, 2016 formal objection to the 2016 TLMP amendment is attached as Exhibit F. The exhibits filed with the objection can be accessed on the USFS Tongass website at:

<https://cloudvault.usda.gov/index.php/s/l6my9KpoJk90wUa>.

The State’s objections did not result in changes to the final TLMP.

In addition to requesting that USDA commence a rulemaking to exempt the Tongass from the Roadless Rule, the State also requests that the USDA Secretary direct the USFS to commence a new amendment or revision process for the TLMP as amended in 2016. The State asks that this new TLMP process reconsider all of the objections in the State’s objection letter in Exhibit 6. However, section III “The Amended Forest Plan violates the TTRA and ANILCA” is of particular relevance to this petition. Ex. 6 at 6.

This section explains that the Roadless Rule violates both the TTRA and ANILCA as is also discussed above. *Id.* It also explains that in adopting this TLMP amendment “USFS now compounds this violation of federal law by selecting an alternative that not only fully implements the Roadless Rule in the management plan governing the Tongass, but also implements a transition plan to young-growth timber with a rapid phase out of the old-growth timber on which the timber industry is dependent.” *Id.*

As a result of implementing the Roadless Rule restrictions in the TLMP, along with additional restrictions on old-growth timber harvest outside of roadless areas, a new

Tongass Exemption rule alone will not provide relief to Southeast Alaska. The Roadless Rule and the 2016 TLMP now each independently restrict road construction and timber harvest to such a degree as to have devastating socioeconomic effects on Alaskans. A more complete discussion of the effects of the TLMP on Alaska and the reasons why the TLMP violates TTRA and ANILCA are set forth in Exhibit 6.

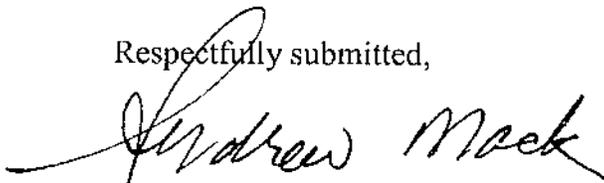
VI. CONCLUSION

Beginning in 2003, USDA has recognized that roadless values in the Tongass are well protected without the Roadless Rule. USDA has also recognized that the prohibitions on road construction and timber harvest in the Roadless Rule come with severe socioeconomic consequences to Alaskans that outweigh any value of adding unnecessary restrictions to those already in place. With this understanding, USDA exempted the Tongass from the Roadless Rule from 2003 until 2011 when a federal court invalidated the Exemption based on a procedural flaw in the 2003 ROD. During this court battle, USDA fully defended USDA's above stated rationale for the exemption.

Subsequent to the court imposing the Roadless Rule on the Tongass, the situation has only been compounded by the USFS's incorporation of the restrictions on roadbuilding and timber harvest into the TLMP. Therefore, both an exemption rulemaking and a TLMP plan revision or amendment are now necessary to reinstate USDA's policy of Tongass exemption set forth in the 2003 ROD.

For the reasons set forth above, the State of Alaska respectfully requests that this petition for rulemaking be granted and that the USDA promptly commences a rulemaking proposing a rule to permanently exempt the Tongass National Forest from application of the Roadless Rule. The State also requests that the Secretary of Agriculture direct the USFS to commence a TLMP revision or amendment to remove provisions of the Roadless Rule that have been incorporated into the plan and to reconsider the State objections set forth in Ex. 6 that were not addressed in the final TLMP.

Respectfully submitted,



Andrew T. Mack, Commissioner
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EXHIBIT 2

Letter of S. Culliney, National Audubon Society to Secretary Perdue, USDA (Oct. 15, 2018)



Audubon | ALASKA

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VIA ONLINE SUBMISSION

<https://www.fs.usda.gov/project/?project=54511>

Secretary Sonny Perdue
U.S. Department of Agriculture
c/o USDA Forest Service, Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, Alaska 99802-1628

Re: Audubon Alaska comments on *Notice of intent to prepare an environmental impact statement for Roadless Area Conservation; National Forest System Lands in Alaska (83 Federal Register 44252)*

October 15, 2018

Dear Secretary Perdue,

Thank you for the opportunity to provide scoping comments on the proposed modification to the roadless rule in the Tongass National Forest. Audubon is opposed to modifying the roadless rule. To the extent that the agency pursues a rulemaking, we support increased protections for roadless areas in the Tongass National Forest, particularly in areas containing large-tree old-growth forests. In the forthcoming environmental impact statement, the agency should:

1. Consider an alternative that excludes logging and retains large-tree old-growth protections within roadless areas
2. Analyze the costs of industrial-scale logging versus the value of ecosystem services; and
3. Restore public trust in this state and federal process.

Consider an alternative that protects old-growth forests

The agency should not overlook the large-tree old-growth resource in this rulemaking. The agency has so far sidestepped this important aspect of roadless areas. The purpose and need statement maintains that the Tongass is “unique” due to characteristics like size and statutory regime. The agency must also acknowledge that the Tongass is “unique” in that it is the largest remaining repository of large-tree old-growth rainforest. The purpose and need says that increasing access for timber and roads may occur “while balancing roadless area conservation needs.” The proposed action refers to “accommodating timber harvesting and road construction” while also “conserv[ing]

roadless area characteristics.” Conserving roadless areas constitutes more than protecting wilderness characteristics, and must include protection to the large-tree old-growth resource contained within roadless areas. The agency should not ignore the large-tree old-growth resource and should explicitly refer to large-tree old-growth in its purpose and need and proposed action. The agency should also include large-tree old-growth in its analysis separately from productive old-growth.¹

Large-tree old growth is a nonrenewable resource necessary for Southeast Alaska’s wildlife.² The term “old-growth” is often used in a misleading manner, and can confusingly include small old trees that are not of interest to either timber operators nor wildlife. The more precise term, “large-tree old-growth” helps identify the forest type that brings industrial timber into conflict with wildlife interests. Large-tree old-growth provides nesting trees for northern goshawks³ and marbled murrelets.⁴ Large trees shade salmon streams and provide complex character to salmon habitat.⁵ Large-tree old-growth provides the necessary canopy structure for deer to find good foraging opportunities in winter.⁶ The second-growth trees that grow back after a clearcut do not provide the same wildlife habitat,⁷ and it takes centuries of natural growing conditions to reach the character of large-tree old-growth forests.⁸ Harvesting large-tree old-growth in Southeast Alaska is therefore akin to mining: it eliminates a valuable resource that does not renew itself within a human timescale. The forthcoming DEIS must expressly acknowledge this forest type and include analysis of how alternatives will impact this resource and the wildlife that depend on it.

There is not much large-tree old-growth left on the Tongass. This historic habitat type has been reduced by half⁹ over decades of pulp-mills, clearcutting, and timber theft.¹⁰ We include with our

¹ See e.g. Prince of Wales Landscape Level Analysis Draft Environmental Impact Statement (including high-volume old-growth (HPOG) and large-tree old-growth (SD67) in its analysis, separately from productive old-growth (POG)).

² See discussion and references in D. Albert, J. Schoen, M. Smith, and N. Walker, *Old-growth and Second-growth Forest*, In M. Smith, ed. 2016. ECOLOGICAL ATLAS OF SOUTHEAST ALASKA. Audubon Alaska, Anchorage, AK.

³ Squires, J. R. and R. T. Reynolds (1997). Northern Goshawk (*Accipiter gentilis*), version 2.0. In *The Birds of North America* (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.298>

⁴ Nelson, S. K. (1997). Marbled Murrelet (*Brachyramphus marmoratus*), version 2.0. In *The Birds of North America* (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.276>

⁵ Murphy, M.L., and K.V. Koski. 1989. Input and depletion of woody debris in Alaska streams and implications for streamside management. *North American Journal of Fisheries Management* 9:427-436.

⁶ Kirchhof, M.D., and J.W. Schoen, 1987, Forest cover and snow: Implications for deer habitat in Southeast Alaska, *The Journal of Wildlife Management* 51:28-33.

Schoen, J.W., and M.D. Kirchhoff, 1990, Seasonal habitat use by Sitka black-tailed deer on Admiralty Island, Alaska, *The Journal of Wildlife Management* 54:371-378.

⁷ Wallmo, O.C., and J.W. Schoen, 1980, Response of deer to secondary forest succession in Southeast Alaska, *Forest Science* 26:448-462.

DellaSala, D.A., J.C. Hagar, K.A. Engel, W.C. McComb, R.L. Fairbanks, and E.G. Campbell, 1996, Effects of silvicultural modifications of temperate rainforest on breeding and wintering bird communities, Prince of Wales Island, Southeast Alaska, *Condor* 98:706-721.

⁸ Alaback, P.B., 1982, Dynamics of understory biomass in Sitka spruce-western hemlock forests of Southeast Alaska, *Ecology* 63:1932-1948.

DellaSala, D.A. 2011, *Temperate and Boreal Rainforests of the World: Ecology and Conservation*, Island Press, Washington, DC.

⁹ D. Albert, J. Schoen, M. Smith, and N. Walker, *Old-growth and Second-growth Forest*, In M. Smith, ed. 2016. ECOLOGICAL ATLAS OF SOUTHEAST ALASKA. Audubon Alaska, Anchorage, AK.

¹⁰ Kathie Dubin, *Tongass Pulp Politics and the Fight for the Alaska Rain Forest* (2d ed. 2005).

comments a map of watersheds at the HUC12 level within Inventoried Roadless Areas that contain substantial acreage (more than 100 acres) of large-tree old-growth.¹¹ According to our initial calculations, there are about 200,000 acres of large-tree old-growth within roadless areas. This constitutes about half of the remaining large-tree old-growth, making the roadless rule an important component for conserving this forest resource. By the same token, the large-tree old-growth within IRAs constitutes only about 2% of the acreage within roadless areas. According to our preliminary assessment, watersheds that contain substantial large-tree old-growth constitute less than half, only about 40%, of the Tongass roadless areas acreage. These are the watersheds that particularly benefit from the logging prohibitions in the existing roadless rule. These are the watersheds that Audubon Alaska will primarily focus on throughout this rulemaking, and which we believe should particularly remain protected by the roadless rule. We also urge ongoing protection to T77 watersheds and TNC-Audubon conservation priority watersheds.¹²

It would be a false compromise to open some roadless areas for timber harvest. There are about 9.3 million acres of roadless areas on the Tongass. But the vast majority of these acres are rock, ice, muskeg, and small-tree old-growth. While these habitat types are important from a wilderness and potentially from a recreation perspective, these acres do not constitute the habitat type at dispute between industrial scale timber and wildlife conservation. It would therefore be erroneous for the agency to frame its analysis of a small percentage of the roadless acres for timber harvest, when the targeted acreage constitutes nearly all of the acres that are most targeted by industrial timber operators.

It would be a false compromise to open *any* roadless areas for timber harvest. Industrial-scale timber has already cut over half of the historical large-tree old-growth over decades of pulp mills and clearcutting.¹³ Moreover, the current land management plan has started to chart a transition away from old-growth clearcutting but maintains a level of old-growth harvest in perpetuity. A compromise between some old-growth for timber and some for wildlife has already occurred on the Tongass National Forest. Any new compromise to open roadless areas for timber harvest would ring deafeningly false given the many historic concessions that wildlife, small-scale operators, and sustainable industries have already made.

The agency should therefore consider an alternative that protects large-tree old-growth and maintains industrial logging prohibitions in all roadless areas of the Tongass. To the extent that officials intend this rulemaking to address issues other than timber harvest,¹⁴ the agency should

¹¹ See Audubon Alaska, Map entitled *Inventoried Roadless Areas Containing Large-Tree Old-growth Forests* (October 2018), Audubon Alaska, Anchorage Alaska.

¹² M. Smith, *Tongass 77 Watersheds*, In M. Smith, ed. 2016. ECOLOGICAL ATLAS OF SOUTHEAST ALASKA. Audubon Alaska, Anchorage, AK.

¹³ See Kathie Dubin, *Tongass Pulp Politics and the Fight for the Alaska Rain Forest* (2d ed. 2005); D. Albert, J. Schoen, M. Smith, and N. Walker, *Old-growth and Second-growth Forest*, In M. Smith, ed. 2016, ECOLOGICAL ATLAS OF SOUTHEAST ALASKA, Audubon Alaska, Anchorage, AK.

¹⁴ Marc Heller, *Push for roads in Tongass about more than timber – officials*, E&E News, October 4, 2018 (Officials have insisted that the rulemaking “isn’t just about boosting timber production.”).

welcome the opportunity to analyze an alternative that focuses entirely on modifying the roadless rule for uses *other* than industrial timber operations. Such an alternative would meet the purpose and need statement because it would address “local and economic development concerns” by protecting a resource needed by sustainable industries, including small-scale logging operators, tourism and recreation guides, and fishing.

Include economic analysis of timber costs and forest values

On the economic balance sheet of agency decisions, the Forest Service too often overvalues harvested timber and undervalues standing trees. This imbalance is manifest in many Forest Service documents, which readily report the number of timber jobs in specific communities but struggle to present data that reflect community members whose livelihoods are tied to the intact forests. We urge the agency to present the costs of timber and roadbuilding alongside the value of roadless areas and functioning forest ecosystems.

The agency should calculate the cost of timber harvest across the alternatives in the DEIS. We anticipate that the agency may claim it cannot calculate the metrics for the costs of timber, as suggested below. However, we presume the agency will estimate the number of timber jobs generated by opening roadless areas to timber harvest. The agency should present the methods it uses to estimate timber jobs and use similar metrics to estimate the timber sales and roadbuilding that would give rise to those estimated jobs. The agency should calculate across the alternatives the following costs of opening roadless areas for timber and roadbuilding:

- Cost per mile and total cost of roadbuilding needed to access timber within roadless areas.
- Annual taxpayer cost of supporting industrial scale timber operations on the Tongass, and the increased marginal cost associated with opening roadless areas to harvest.
- Number of jobs in Southeast Alaska, broken down by community, that are directly or indirectly associated with tourism, recreation, guiding, commercial fishing, and wildlife-viewing.
- Annual total volume and percent of total volume of timber, broken down by tree species, from the Tongass National Forest that is exported outside Alaska as round logs; to include an estimate of how much those logs would add to the Southeast economy if the round logs were retained in-region for value-added processing.
- A review of taxpayer loss from recent timber sales at Big Thorne and Tonka where appraisal calculation errors and reported violations to stewardship contract provisions resulted in more valuable timber cut than allowed on contract; to include an update on whether these problems have been resolved.¹⁵

Alongside the very serious costs of old-growth timber on the Tongass, the agency should calculate the value of functioning forest ecosystems. Ecosystem services are the goods and services that

¹⁵ USDA Forest Service, *Washington Office Activity Review of Timber Sale Administration, Sale Preparation, Stewardship Contracting, NEPA and Timber Theft Prevention Region 10* (2016).

people receive from natural systems. For example, trees sequester carbon, saving us from potentially having to sequester carbon through other costly methods in the future. Watersheds purify water, saving a nearby community from having to spend money to build a water treatment system.¹⁶ The Forest Service as an agency is keenly aware of and interested in tracking ecosystem services in the National Forest System.¹⁷ The agency has publicly stated its interest¹⁷ in incorporating the value of ecosystem services into its calculations and considerations:

“Healthy forest ecosystems are ecological life-support systems. Forests provide a full suite of goods and services that are vital to human health and livelihood, natural assets we call ecosystem services.

“Many of these goods and services are traditionally viewed as free benefits to society, or "public goods" - wildlife habitat and diversity, watershed services, carbon storage, and scenic landscapes, for example. Lacking a formal market, these natural assets are traditionally absent from society’s balance sheet; their critical contributions are often overlooked in public, corporate, and individual decision-making.

“When our forests are undervalued they are increasingly susceptible to development pressures and conversion. Recognizing forest ecosystems as natural assets with economic and social value can help promote conservation and more responsible decision-making.

“The Forest Service is exploring national opportunities to advance markets and payments for ecosystem services. With help from our partners and others, we will encourage broader thinking and collaboration that stimulates market-based conservation and stewardship.”¹⁸

The practice of ignoring these goods and services in economic analyses is termed “externalization” because the costs or values are externalized from the equation. By externalizing the costs, the agency neglects to consider them. It is important to instead internalize the costs and values of ecosystem services in the calculation of economic costs of a development, or opening roadless areas, in order to gain a clearer picture of what that development or timber sale may in fact cost us in the long run.

There are methods the agency may use to estimate value of keeping forest stands intact. One study surveyed Alaskans to determine the “Willingness To Pay” to conserve old-growth forest on the Tongass. The study argued that “[t]he market impacts of the Tongass timber program, in terms of board feet of production and regional employment, are well monitored and incorporated into USFS planning processes . . . [but] the economic values foregone by clear-cutting old growth, are noticeably absent from the planning process.”¹⁹ The study concluded that Alaskans are willing to pay \$7.50 per thousand board feet to conserve old-growth in the Tongass. This value is higher than the

¹⁶ Kate A. Brauman, Gretchen C. Daily, T. Ka’eo Duarte, and Harold A. Mooney, *The Nature and Value of Ecosystem Services: An overview highlighting hydrologic services*, 32 *Annual Review of Environment and Resources* 67 (2007).

¹⁷ Seth Binder, Robert G. Haight, Stephen Polasky, Travis Warziniack, Miranda H. Mockrin, Robert L. Deal, and Greg Arthaud, *Assessment and Valuation of Forest Ecosystem Services: State of the Science Review*, USDA General Technical Report NRS-170 (May 2017), available at https://www.fs.fed.us/nrs/pubs/gtr/gtr_nrs170.pdf

¹⁸ <https://www.fs.fed.us/ecosystemservices/>

¹⁹ Evan E. Hjerpe & Anwar Hussain, *Willingness to pay for ecosystem conservation in Alaska’s Tongass National Forest: a choice modeling study*, *Ecology and Society* 21:8, available at <https://www.ecologyandsociety.org/vol21/iss2/art8/>

\$7.12 per thousand board feet base rate received for cutting and selling the timber. Furthermore, cutting old-growth costs \$101 per thousand board feet, while keeping a forest standing does not require these high cutting costs. The agency should incorporate these metrics into their method for estimating value and cost of opening roadless areas for timber harvest.

The agency may also calculate value of roadless areas by estimating the value of a suite of ecosystem services provided by large-tree old-growth forests. Old-growth forests support a salmon fishery that provides local jobs and earnings. Old-growth provides local subsistence hunters with food and cultural well-being. Old-growth habitat provides birds with climate change refugia,²⁰ supports a diversity of bird species in Southeast Alaska,²¹ and draws tourists from around the world to bird and wildlife-watch.²² Wildlife-watching and birding involve tens of millions of people and is a multi-million dollar industry in the U.S.²³ The economic value of birds from a birding standpoint can be difficult to capture or even conceptualize, but can be estimated by tracking the travel costs that birders expend to view birds in a certain area.²⁴ Capturing the economic value of retaining protections for Tongass roadless areas is complex but not impossible, and the agency should incorporate these concepts into an economic analysis.

Restore public trust

This rulemaking is occurring at a time of unprecedented erosion in public trust of government institutions. We urge the agency to adhere to the following procedural norms in order to forge greater trust in this process and its outcome:

- Clearly explain what a modification to the roadless rule will mean for the Tongass Land Management Plan (TLMP) and the transition away from old-growth clearcutting. In 2016, the agency amended the TLMP in order to expedite a transition away from old-growth timber harvest.²⁵ The DEIS must clearly spell out how each alternative would affect the

²⁰ Matthew G. Betts, Ben Phalan, Sarah J.K. Frey, Josee S. Rousseau, and Zhiqiang Yang, *Old-growth forests buffer climate sensitive bird populations from warming*, Diversity and Distributions 2017:1-9.

²¹ See Dominick A. Dellasala, Joan C. Hagar, Kathleen A. Engel, William C. McComb, Randal L. Fairbanks, and Ellen G. Campbell, *Effects of silvicultural modifications of temperate rainforest on breeding and wintering bird communities, Prince of Wales Island, Southeast Alaska*, 98 The Condor 706 (1996).

²² About 45% of Alaska's visitors in 2016 participated in wildlife viewing, and 9% participated in birdwatching specifically. In 2016, Southeast captured 67% of the visitors in Alaska, and nearly all of these visitors (95%) were traveling there for the purpose of vacation or pleasure, and a large majority of these are cruise visitors. McDowell Group, *Alaska Visitor Statistics Program Summer 2016* (May 2017).

²³ In 2016, 86 million Americans reported participating in wildlife-watching activities, with more than 45 million specifically watching birds. Of these, over 23 million people traveled away from home to watch wildlife, and 16 million people traveled to watch birds in 2016. Wildlife watchers spent about \$11.5 million on trip-related expenses for watching wildlife, and about \$64 million in equipment and other expenses related to wildlife watching. U.S. Fish and Wildlife Service, *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (August 2017) available at https://wsfrprograms.fws.gov/subpages/nationalsurvey/nat_survey2016.pdf.

²⁴ Sonja Kolstoe and Trudy Ann Cameron, *The non-market value of birding sites and the marginal value of additional species: biodiversity in a random utility model of site choice by eBird members*, 137 Ecological Economics 1-12 (2017).

²⁵ USDA Forest Service Alaska Region, *Tongass Land and Resource Management Plan Final Environmental Impact Statement* (June 2016) ("An amendment is necessary for responding to the July 2013 direction from USDA Secretary Tom Vilsack outlined in the Secretary's Memorandum 1044-009. The memorandum directs management of the Tongass National Forest to expedite the transition away from old-growth timber harvesting . . .").

amended TLMP and how each alternative would conform to the directed transition away from old-growth harvest.

- Clarify whether scoping comments may be received following the October 15 deadline. Many citizens are not aware that the agency will often accept scoping comments after the preferred deadline. This information is particularly important because the State of Alaska process will complete in November and the public may wish to weigh in with additional comments, following public release of the recommended alternatives from the State of Alaska.
- The agency should not dismiss any public comments it receives. Letters that come in the form of template letters are still reflective of citizens who care about this issue and these letters should not be dismissed as was stated and otherwise implied at a public meeting in Sitka:

Nichols said they expect many thousands of comments to be submitted by the public, but to be considered they must be specific, substantive and include a rationale for adoption. *Submissions that are obviously mass-produced will not be considered* (emphasis added).²⁶

A similar public statement of dismissal by the Secretary of the Interior in 2017 left the public in deep mistrust over the decision by that Department over national monument status:

Comments received were overwhelmingly in favor of maintaining existing monuments and demonstrated a well-orchestrated national campaign organized by multiple organizations.²⁷

The Forest Service should clarify in its DEIS and publicly state that it will consider all comments received from concerned citizens.

- Clarify the difference between the State of Alaska's role as a cooperating agency versus comments from individual Alaskans. The State of Alaska's role as a cooperating agency is not reflective of many individual Alaskans' views on retaining the Roadless Rule and protecting old-growth forests from logging. The State has convened a Citizens Advisory Council, which includes several seats for timber voices and no seats for tourism or recreation voices. The State has also made clear that it wants a full exemption from the Roadless Rule; casting doubt on the objectivity of the recommendations from the committee. The Forest Service should therefore make clear in its environmental review documents that the State of Alaska's cooperating agency status does not take the place of comments from individual

²⁶ Thad Poulson, [New Roadless Effort Raises Questions Here](#), Sitka Sentinel, September 25, 2018.

²⁷ Memorandum for the President from Ryan K. Zinke, Secretary of the Interior, to President Donald J. Trump (undated) *available at* https://www.doi.gov/sites/doi.gov/files/uploads/revise_final_report.pdf; Juliet Eilperin, [Zinke backs shrinking more national monuments and shifting management of 10](#), Washington Post, December 5, 2017, *available at* https://www.washingtonpost.com/national/health-science/zinke-backs-shrinking-more-national-monuments-shifting-management-of-10-others/2017/12/05/e116344e-d9e5-11e7-b1a8-62589434a581_story.html?utm_term=.cd023c3dfd64.

Alaskans. We encourage the agency to carefully weigh statements from Alaskans and Americans from around the nation who submit comments on this matter.

- Future public meetings should be on the record. The agency took time and funding to visit many remote communities in Southeast Alaska. This is commendable, but it was discouraging that the statements and questions were not on the record. Many of these communities do not have reliable communications, and prefer to keep it that way. An official agency meeting that is not on the record is a lost opportunity to incorporate input from these remote communities.

Audubon is opposed to a rulemaking that creates a Tongass-specific roadless rule, which appears designed to put remaining old-growth at risk of clearcutting. While we are disappointed that the agency is pursuing this objective, we appreciate the opportunity to provide these scoping comments. We look forward to seeing our comments incorporated into the Draft EIS. Please feel free to contact us with any questions, clarifications, or requests for additional information.

Sincerely,

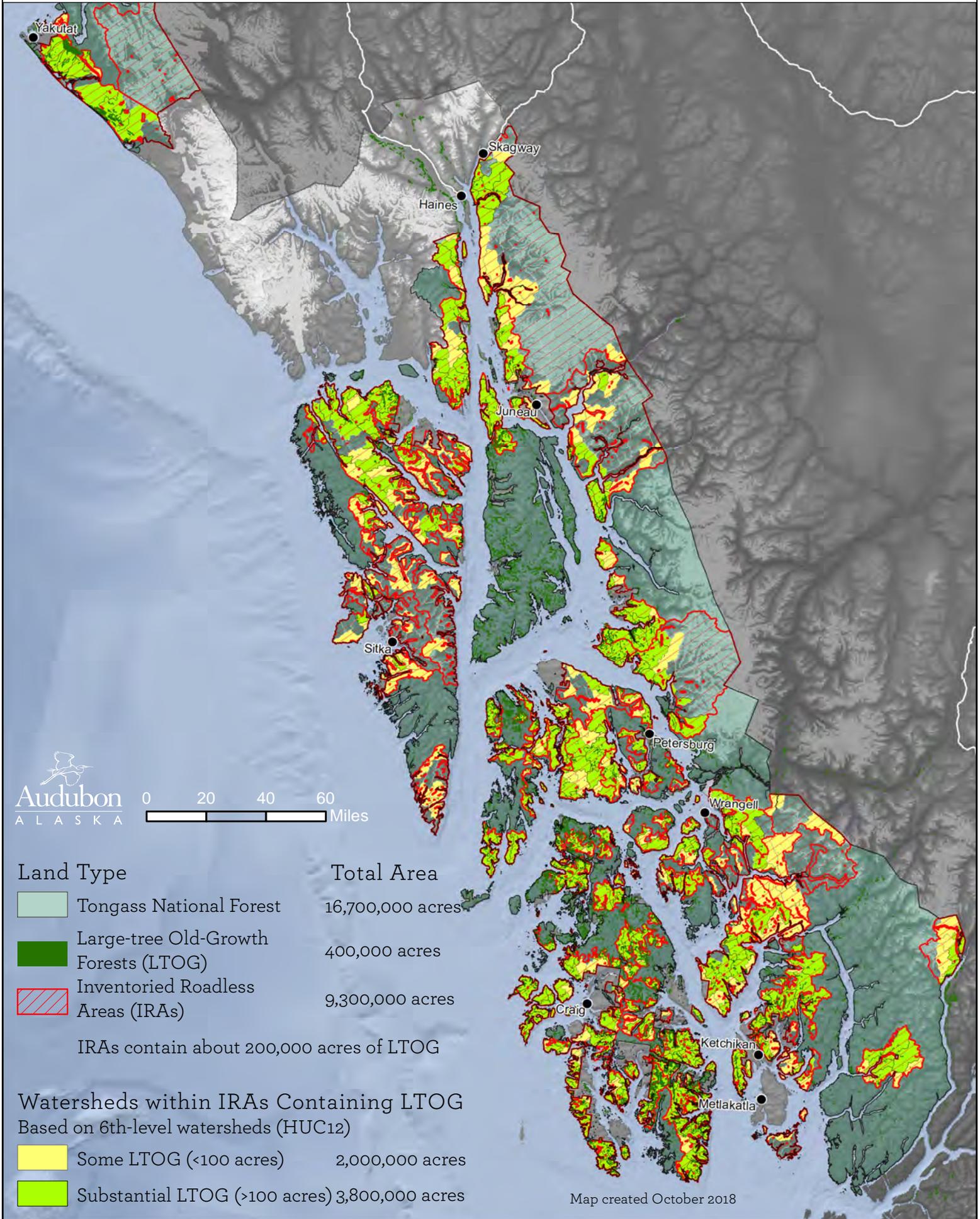


Susan Culliney
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Attachments

- A. Audubon Alaska, map entitled *Inventoried Roadless Areas Containing Large-tree Old-growth Forests* (October 2018), Audubon Alaska, Anchorage, AK.
- B. D. Albert, J. Schoen, M. Smith, and N. Walker, *Old-growth and Second-growth Forest*, In M. Smith, ed. 2016. *ECOLOGICAL ATLAS OF SOUTHEAST ALASKA*. Audubon Alaska, Anchorage, AK.

Inventoried Roadless Areas Containing Large-tree Old-growth Forests



0 20 40 60 Miles

Land Type

Land Type	Total Area
Tongass National Forest	16,700,000 acres
Large-tree Old-Growth Forests (LTOG)	400,000 acres
Inventoried Roadless Areas (IRAs)	9,300,000 acres

IRAs contain about 200,000 acres of LTOG

Watersheds within IRAs Containing LTOG Based on 6th-level watersheds (HUC12)

Some LTOG (<100 acres)	2,000,000 acres
Substantial LTOG (>100 acres)	3,800,000 acres

Map created October 2018

OLD-GROWTH & SECOND-GROWTH FOREST

David Albert, John Schoen, Melanie Smith, and Nathan Walker

PRODUCTIVE OLD GROWTH

According to the 2008 Tongass Land Management Plan, productive old-growth (POG) forest is defined as old-growth forest lands capable of producing at least 20 cubic ft/ac (1.4 cubic m/ha) of wood fiber per year, or having greater than 8,000 board ft/ac (47 cubic m/ha) (USFS Tongass National Forest 2008c), with some stands having as much as 200,000 board ft/ac (1166 cubic m/ha).

This is a good technical definition, but what is lacking is a sense of the size of the trees in these forest stands, their natural history, and their importance to the ecology of Southeast Alaska. Productive old-growth forest may contain trees that exceed 1,000 years of age; dominant trees typically exceed 300 years of age. The largest trees may reach heights of 130–175 ft (40–50 m) with diameters ranging from 5–11 ft (1.5–3.4 m). Tree species found in these stands typically include western hemlock (*Tsuga heterophylla*), Sitka spruce (*Picea sitchensis*), and sometimes red or yellow cedar (*Thuja plicata* and *Cupressus nootkatensis*, respectively). Western hemlock tends to dominate in the oldest stands, as it is the more shade-tolerant species.

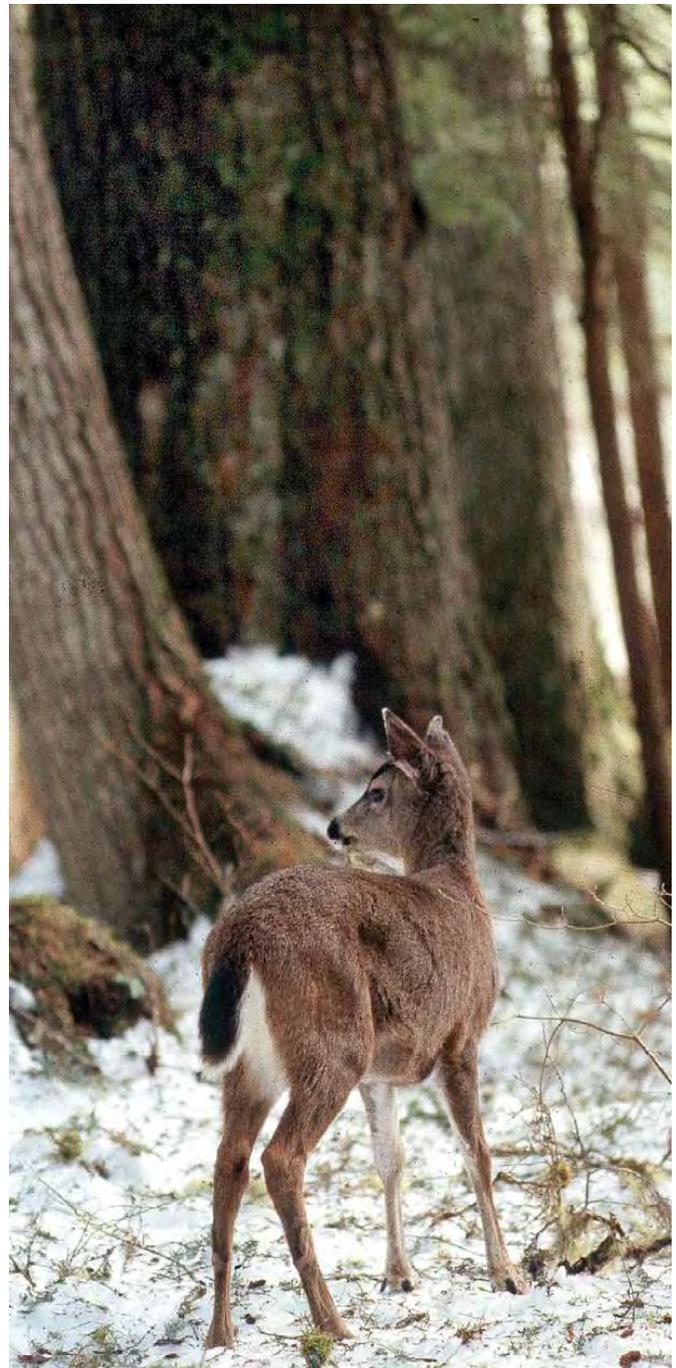
One key characteristic of old-growth stands is that they include trees of multiple (“uneven”) ages and sizes, from seedlings and saplings to pole-sized trees (30–80 years) to trees many centuries old. This forest structure is the cumulative result of many single tree or small tree-group mortality events caused by disease or wind opening gaps in the canopy and creating the space for a rich understory of herbs, ferns, and shrubs, as well as the next generation of trees vying for dominance. Even without the creation of a new forest gap, the multi-aged canopy typical of an old-growth forest lets in adequate sunlight, supporting an understory of blueberries and huckleberries of the genus *Vaccinium*, along with rusty menziesia (*Menziesia ferruginea*), salmonberry (*Rubus spectabilis*), devil’s club (*Oplopanax horridum*), and red elderberry (*Sambucus racemosa*).

Productive old-growth forest can include a range of forest types and size classes. Differences in soil drainage result in widely divergent forest structure and stand dynamics. For example, forests growing at lower elevations on well-drained alluvial and floodplain soils are relatively rare, yet are very diverse and productive. Likewise, forests at low elevations on karst formations also produce stands of very large trees. Karst formations in limestone and marble bedrock allow water to drain and trees to grow very large by preventing water-logged soils that can reduce growth rates. Upland forests tend to be dominated by stands of western hemlock and mixed western hemlock-Sitka spruce. Conversely, old-growth forest can be made up of small trees that grow on poorly-drained wet (hydric) soils for centuries without ever reaching a size class that would merit the label productive old growth.

This variation in productive old-growth forests has been described by Caouette and DeGayner (2005), who devised a system to categorize POG stands based on tree size, stand density, and geomorphic stratification grouped into floodplain and upland types as well as forests associated with karst landscapes. Productive old-growth stands were categorized based on a measure of quadratic mean diameter into “large-tree” (>21 in [53 cm]), “medium-tree” (17–21 in [43–53 cm]), and “small-tree” (<17 in [43 cm]).

Productive old-growth forest currently comprises 27% of the land cover in Southeast Alaska, with 3% in large-tree, 20% in medium-tree, and 4% in small-tree size classes. Large-tree old-growth forests are very important habitat for fish and wildlife populations. For example, during periods of deep snow, Sitka black-tailed deer (*Odocoileus hemionus sitkensis*) move into large-tree stands (Schoen and Kirchoff 1990) where the massive canopy structure intercepts and holds large amounts of snow, providing for winter foraging opportunities below the canopy (Kirchoff and Schoen 1987). Trees that grow

along streams, particularly larger trees, provide an important source of long-lasting woody debris that provides stream structure and enhances habitat for salmon (Murphy and Koski 1989). Productive old growth provides dens for black bears (*Ursus americanus*) and wolves (*Canis lupus*), and nesting trees for Northern Goshawks (*Accipiter gentilis*) (Erickson et al. 1982, Iverson et al. 1996, Person and Russell 2009), as well as habitat for countless other species.



John Schoen

Old-growth forests are considered critical winter deer habitat in Southeast because they provide deer with the combination of abundant forage and shelter from deep snow.

SECOND GROWTH

The temperate rainforests of Southeast Alaska are in the perhumid (continuously wet) rainforest zone with high annual precipitation distributed throughout the year. Disturbance events impacting large swathes of forest, such as wildland fires, are not common in Southeast. In this zone, wind is the dominant natural disturbance regime while fire is comparatively rare (Alaback et al. 2013). Wind disturbance events tend to occur most frequently on higher elevation south-facing slopes (Doerr et al. 2005), affecting small patches (2–3 ac [.8–1.2 ha]) at a time (Alaback et al. 2013). Thus the kind of large-scale impacts created by industrial logging are in stark contrast to natural windthrow events (Brady and Hanley 1984) and represent a precarious experiment in ecosystem ecology with unknown long-term impacts.

It is estimated that 12% of all productive old-growth forest in Southeast Alaska has been harvested (>800,000 ac [>323,749 ha]). Areas that were harvested after 1986 consisted of approximately 29% large-tree, 65% medium-tree, and 6% small-tree productive old-growth forest types. These figures are likely lower than what was the historic harvest rate (pre-1986) for the large-tree forest type, because regulations in the 1979 Tongass Land Management Plan and 1990 Tongass Timber Reform Act placed new restrictions on logging in the most productive floodplain forests. Accounting for data deficiencies, the Audubon-TNC Conservation Assessment estimated that roughly 50% of the original large-tree old-growth forests have been logged.

Importantly, this logging was not evenly distributed across Southeast, with rates as high as 32% of all POG and 40% of all large-tree POG being harvested on North Prince of Wales Island. Nearly all of the previously harvested areas shown on the accompanying map were once productive old-growth forests. In total, large trees in Southeast Alaska have been the target of industrial logging operations for 60 years. During this time large trees were logged disproportionately, known as “highgrading” (Albert and Schoen 2013). To that end, extremely large trees, those 3 ft (1 m) or more in diameter, have been almost completely removed from the landscape. Remnant patches of productive large-tree old growth are very important for maintaining wildlife populations and biodiversity (Houde et al. 2007) within the matrix of logged lands.

The highgrading within the Prince of Wales Island Complex has resulted in a dramatic shift in forest structure from historic old-growth conditions (see Figure 3c in Albert and Schoen 2013). North Prince of Wales Island was logged at a rate 2.7 times higher than the forest-wide average, and 1.6 times higher than the next most intensively logged province (Dall Island Complex). In total, 120,000 ha (296,000 ac) have been logged in this single province, which is 38% of what has been logged forest-wide. At the landscape scale, 31% of contiguous high-volume forest in Southeast Alaska historically occurred on Northern Prince of Wales Island, and these forests were reduced by 94% between 1954 and 2004 (191,596 ac [77,536 ha] down to 11,864 ac [4,801 ha]) (Albert and Schoen 2013).

Second-growth stands are ecologically much different from old-growth stands. Unlike uneven-age, multi-story old growth generated through small patch disturbances, clearcut logging removes many tens of hectares (hundreds of acres) of contiguous timber at one time. Following clearcutting in Southeast, a forest’s succession follows in multiple stages (Harris 1974, Harris and Farr 1974b, Harris and Farr 1979, Wallmo and Schoen 1980, Alaback 1982). Initially young seedlings and saplings generate an abundance of new forage (i.e. herbs, ferns, and shrubs) for some species, including deer, during snow-free months. Conifer seedlings grow abundantly and peak at approximately 15 to 20 years. At about 20 to 30 years, young conifers begin to overtop shrubs and dominate the second-growth stand. After 35 years, stands move into the “stem-exclusion” phase where pole-sized trees grow so tightly packed that light does not reach the forest floor. In this stage, conifers completely dominate second growth, the forest floor is continually shaded, and the understory (including forbs, shrubs, and lichens) largely disappears from the even-aged, second-growth stand.

This results in an excess of lands being converted from high forage to essentially no forage. Therefore, an excess of logging causes an ecological “debt” that eventually must be accounted for. This stage typically lasts >100 years (Wallmo and Schoen 1980, Dellasala et al. 1996), while climax uneven-aged old-growth characteristics can take several centuries to redevelop (Alaback 1982, DellaSala 2011).

CONSERVATION ISSUES

The Tongass National Forest has identified a suite of Management Indicator Species that are monitored in order to assess the effects of management activities on their populations and on the populations of other species that share similar habitat requirements (USFS Tongass National Forest 2008c). Some of the species identified in the 2008 Tongass Land Management plan as Management Indicator Species that depend upon productive old-growth forest include: Sitka black-tailed deer, American marten (*Martes americana*), coho salmon (*Oncorhynchus kisutch*), and pink salmon (*Oncorhynchus gorbuscha*). Other species of interest identified by the US Forest Service that need productive old-growth forest habitat include the northern flying squirrel (*Glaucomys sabrinus*), marbled murrelet (*Brachyramphus marmoratus*), and Queen Charlotte Goshawk (*Accipiter gentilis laingi*) (USFS Tongass National Forest 2008a). The relationship between productive old-growth forest and these species is described below:

- The herbaceous understory, along with the ability of the canopy to intercept heavy winter snows, makes productive old-growth forests particularly good deer habitat during hard winters (Kirchhoff and Schoen 1987, Schoen and Kirchhoff 1990). Hard winters with lasting deep snow are an important stochastic influence on the Sitka black-tailed deer, reducing total population size (Olson 1979); thus the amount of productive old-growth forest that remains plays an important role in the abundance of this species.
- The American marten (*Martes americana*) is a small- to medium-sized carnivore of the weasel family whose fate is bound with that of productive old-growth forest. Studies have shown the marten’s strong preference for large-tree old-growth and unfragmented forests (Flynn et al. 2004).
- Productive old-growth forest plays a large role in the maintenance of healthy salmon populations, and the nutrients that salmon provide in turn create a healthy and productive ecosystem. When bears and other animals carry salmon away from streams, the carcasses serve as fertilizer for the near-stream vegetation and trees (Gende et al. 2002).
- Research has shown that over 20% of the foliar nitrogen of trees and shrubs growing near streams is derived from spawning salmon (Helfield and Naiman 2001). Coho and pink salmon are two of the widely distributed salmon species in Southeast Alaska. Maintaining productive old-growth forests and forested buffers along salmon streams is vitally important to these species for several reasons.
- Without buffers, sedimentation caused by logging can cover the clean gravel needed for spawning (Scrivener and Brownlee 1989). The lack of forested stream buffers can also contribute to high levels of pre-spawning mortality in small drainages at low elevations due to higher stream temperatures and resulting low oxygen levels (Murphy 1985, Halupka et al. 2000). The mature trees that surround salmon streams also often either fall or drop branches, creating large woody debris in the stream. This creates pools that help salmon (especially coho salmon) to remain in the stream despite high water levels in the fall and to overwinter successfully (Tschaplinski and Hartman 1983, Heifetz et al. 1986, Murphy et al. 1986).
- The northern flying squirrel has been shown to be closely associated with old-growth forest (Carey 1995). Gliding, not flying, in Tongass forests, this species plays an important ecological role by feeding on the fruiting bodies of mycorrhizal fungi and dispersing the spores throughout the forest (Maser and Maser 1988). These fungi form a beneficial symbiotic relationship with the roots of many woody plants, including conifer trees. The mycorrhizal fungi are able to enhance nutrient acquisition for the trees, while extracting some sugars from the roots.

- The Marbled Murrelet nests in the abundant moss present on the large branches of mature trees. The best habitat for the Marbled Murrelet is considered to be large contiguous blocks of high volume, low elevation old-growth forest (USFS Tongass National Forest 2008a).
- The Queen Charlotte Goshawk, a subspecies of the Northern Goshawk, is listed as a sensitive species and is known to select nesting sites in mature, high volume stands of western hemlock. Individual nest trees typically average 27 in (68.7 cm) diameter at breast height (Flatten et al. 2001).

According to Albert and Schoen (2013), results of a review of habitat thresholds literature (to inform forest planning in coastal British Columbia) indicated that maintaining loss of habitat below 40% of historical abundance poses a low risk to most species, whereas declines above that level result in less confidence that risks of extirpation will remain low (Price et al. 2009). On the basis of this criterion, rare forest types that have been reduced by >40% of historical abundance such as landscape-scale blocks of high-volume old growth, and particularly those on Prince of Wales Island, may warrant special consideration (Cook et al. 2006).

The loss of old-growth forest to industrial-scale clearcut logging has been central to petitions to list the Queen Charlotte Goshawk, Prince of Wales flying squirrel (*Glaucomys sabrinus griseifrons*), and Alexander Archipelago wolf (*Canis lupus ligoni*) under the US Endangered Species Act.

MAPPING METHODS

Productive Old Growth

The productive old-growth data layer was created by Albert and Schoen for the Audubon-TNC Conservation Assessment. Methods are as follows. The Tongass Forest timber inventory provided the foundation for mapping of vegetation, and was augmented with timber inventory data from Haines State Forest and with classified Landsat Multi-spectral Scanner (MSS) imagery from the Interim Landcover Mapping Program of the US Geological Survey. This imagery, in combination with 1997 US Forest Service (USFS) aerial photography, allowed development of a reasonably current database of forest condition on USFS, state, and private lands across Southeast. Although land cover categories were limited by the resolution of information from management agencies, it was mostly possible to maintain consistency among general types throughout the region. To represent the diversity of ecological values associated with forest ecosystems, a general classification developed by Caouette and DeGayner (2005) was used based on tree size and stand density and a geomorphic stratification grouped into flood plain and upland types as well as forests associated with karst landscapes. Stands of productive old growth were categorized based on a measure of quadratic mean diameter into “large-tree” (>21 in [53 cm]), “medium-tree” (17–21 in [43–53 cm]), and “small-tree” stands (<17 in [43 cm]) using the USFS database on existing vegetation, historical information on forest structure contained in the 1986 Timtype (Timber Type) database, and data on hydric (wet) soils contained in the National Wetlands Inventory. Forest condition on private lands was estimated by using Landsat ETM (1999–2000) and USFS orthophotographs (1996). For lands within the Tongass National Forest, floodplain forests were identified based on the Tongass National Forest soils database. For lands outside the Tongass, a multivariate modeling approach was used.

Using the total acreage of habitat, Audubon and TNC ranked watersheds in Southeast Alaska, stratified by biogeographic province (Albert and Schoen 2007). Watersheds were ranked for riparian and upland forest habitat separately. The top (#1 ranked) riparian and/or upland forest watersheds in each province are shown on the map.

Second Growth

The second-growth dataset that is included here brings together multiple data sources to create a seamless data layer for all of Southeast Alaska. The 2013 Land Cover dataset produced by the Tongass National Forest was used to identify young-growth areas on Tongass National Forest (both natural and resulting from harvest activity). The Forest Type dataset produced by Albert and Schoen 2007 Conservation Assessment and Resource Synthesis for Southeast Alaska was used to locate post-harvest second-growth areas on non-Tongass National Forest lands (Albert and Schoen 2006, USFS Tongass National Forest Timber Management Staff 2013b). Additionally, locations on non-Tongass National Forest Lands where post-harvest young growth identified in the 2013 Size Density layer agreed with the 2013 Activity Polygon from Tongass National Forest (showing timber harvest or other management) were classified as second growth. This captured recent logging activity that has taken place since 2007 as well as historical harvests not detected via the remote-sensing approach used for development of the Forest Types dataset (USFS Tongass National Forest Timber Management Staff 2013a). Finally, the 2016 USFS Harvest Activity nationwide layer was used to add in harvested stands not portrayed by the other layers.

Landscape-scale Forest Change

The inset maps represent the 1954 and 2004 forest conditions, showing change in the amount of historic landscape-scale forest in m³/km². Albert and Schoen developed this metric using a moving-window analysis of volume with a 0.6 mi (0.9 km) radius, in order to integrate “information on forest structure and the degree to which productive old growth-forests are contiguous across the landscape” (Albert and Schoen 2013).

MAP DATA SOURCES

- Landscape-scale Forest Change: Albert and Schoen (2013)
- Productive Old-growth Forest: Albert and Schoen (2007b)
- Second-growth Forest: Audubon Alaska (2014), based on: Albert and Schoen (2007b), USFS Tongass National Forest Timber Management Staff (2013a), USFS Tongass National Forest Timber Management Staff (2013b); US Forest Service (2016).



John Scheen



John Scheen

Above: Old-growth forest is characterized by large snags, trees of diverse size and age, multiple canopy layers with frequent gaps, and luxuriant understory of forbs, shrubs, and hemlock saplings. Old growth has high habitat value for many species of fish and wildlife. **Below:** A post-logging forest stand, approximately 60 years old. The stand is even-aged, has a closed canopy with little understory, and habitat value for most wildlife is low.



Productive Old-growth Forest

Productive old-growth (POG) forest is defined as old-growth forest lands capable of producing at least 20 cubic feet/acre of wood fiber per year. Productive old-growth forest may contain trees that exceed 1,000 years of age; dominant trees typically exceed 300 years of age. One key characteristic of old-growth stands is that they include trees of multiple (“uneven”) ages and sizes, from seedlings and saplings to pole-sized trees (30–80 years) to trees many centuries old. This forest structure is the cumulative result of many single tree or small tree-group mortality events caused by disease or wind opening gaps in the canopy and creating the space for a rich understory of herbs, ferns, and shrubs, as well as the next generation of trees vying for dominance. Productive old-growth forest currently comprises 27% of the land cover in Southeast Alaska, with 3% in large-tree, 20% in medium-tree, and 4% in small-tree size classes.

Landscape-scale forest, 1954



Large-tree riparian and/or upland forest priority watershed (#1 ranked in province based on total habitat area)¹

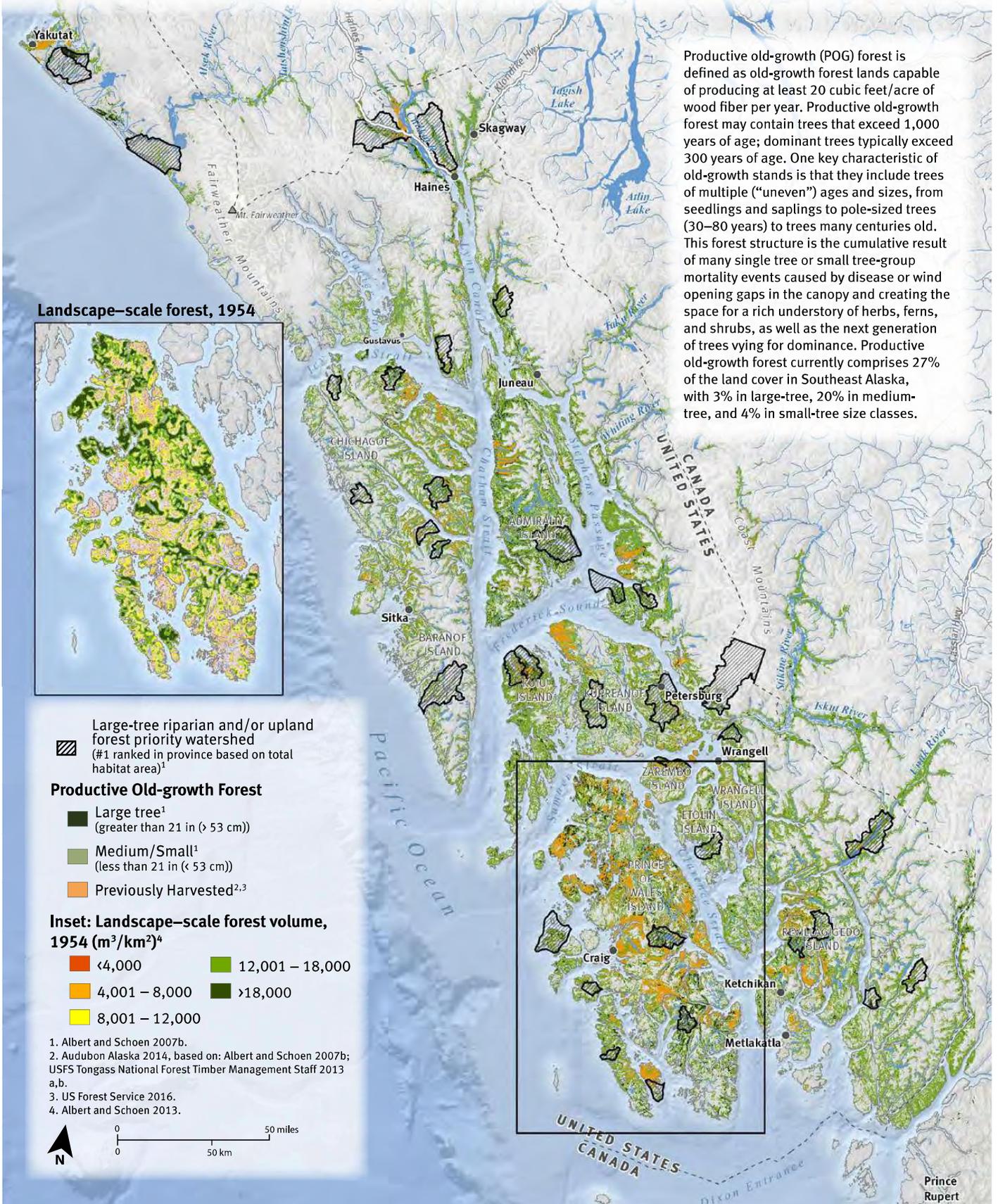
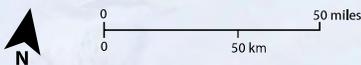
Productive Old-growth Forest

- Large tree¹ (greater than 21 in (> 53 cm))
- Medium/Small¹ (less than 21 in (< 53 cm))
- Previously Harvested^{2,3}

Inset: Landscape-scale forest volume, 1954 (m³/km²)⁴

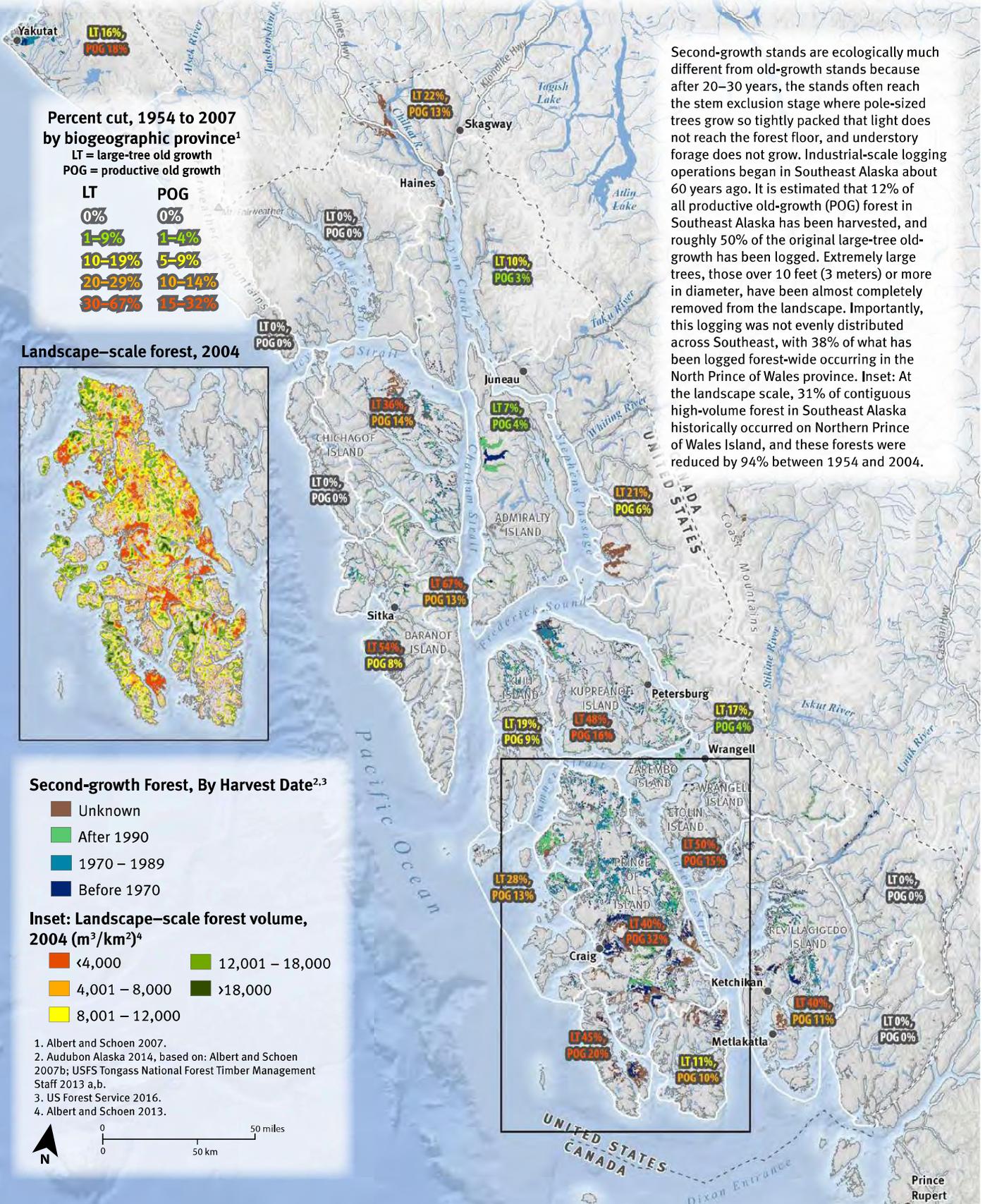
- <4,000
- 4,001 – 8,000
- 8,001 – 12,000
- 12,001 – 18,000
- >18,000

1. Albert and Schoen 2007b.
 2. Audubon Alaska 2014, based on: Albert and Schoen 2007b; USFS Tongass National Forest Timber Management Staff 2013 a,b.
 3. US Forest Service 2016.
 4. Albert and Schoen 2013.



Map 3.6: Productive Old-growth Forest

Second-growth Forest



Second-growth stands are ecologically much different from old-growth stands because after 20–30 years, the stands often reach the stem exclusion stage where pole-sized trees grow so tightly packed that light does not reach the forest floor, and understory forage does not grow. Industrial-scale logging operations began in Southeast Alaska about 60 years ago. It is estimated that 12% of all productive old-growth (POG) forest in Southeast Alaska has been harvested, and roughly 50% of the original large-tree old-growth has been logged. Extremely large trees, those over 10 feet (3 meters) or more in diameter, have been almost completely removed from the landscape. Importantly, this logging was not evenly distributed across Southeast, with 38% of what has been logged forest-wide occurring in the North Prince of Wales province. Inset: At the landscape scale, 31% of contiguous high-volume forest in Southeast Alaska historically occurred on Northern Prince of Wales Island, and these forests were reduced by 94% between 1954 and 2004.

Map 3.7: Second-growth Forest

1. Albert and Schoen 2007.
 2. Audubon Alaska 2014, based on: Albert and Schoen 2007b; USFS Tongass National Forest Timber Management Staff 2013 a,b.
 3. US Forest Service 2016.
 4. Albert and Schoen 2013.



EXHIBIT 3

U.S. Forest Service, *Ecosystem Services*, available at <https://www.fs.fed.us/ecosystems-services/>



Ecosystem Services

Healthy forest ecosystems are ecological life-support systems. Forests provide a full suite of goods and services that are vital to human health and livelihood, natural assets we call **ecosystem services**.

Many of these goods and services are traditionally viewed as free benefits to society, or "public goods" - wildlife habitat and diversity, watershed services, carbon storage, and scenic landscapes, for example. Lacking a formal market, these natural assets are traditionally absent from society's balance sheet; their critical contributions are often overlooked in public, corporate, and individual decision-making.

When our forests are undervalued they are increasingly susceptible to development pressures and conversion. Recognizing forest ecosystems as natural assets with economic and social value can help promote conservation and more responsible decision-making.

The Forest Service is exploring national opportunities to advance markets and payments for ecosystem services. With help from our partners and others, we will encourage broader thinking and collaboration that stimulates market-based conservation and stewardship.



Spotlights



**USDA Office of
Environmental
Markets**



**Forests to
Faucets**



Resources
Explore feature
publications

Location: <https://www.fs.fed.us/ecosystemservices/index.shtml>

Updated: January 23, 2018 6:48 AM

EXHIBIT 4

Rain Coast Data, *Southeast Alaska by the Numbers 2018* (Sep. 2018)

SOUTHEAST ALASKA by the Numbers 2018



VISITORS
PAGE 5

MARITIME, SEAFOOD
PAGE 6,7

HEALTH, MINING
PAGE 8

TIMBER, CONSTRUCTION
PAGE 9

GOVERNMENT
PAGE 10

DEMOGRAPHICS
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BUSINESS SURVEY
PAGE 13-14

SEPTEMBER 2018

CHANGES 2014 TO 2017

SOUTHEAST ALASKA'S ECONOMY



REGIONAL POPULATION
DECREASED BY **1,600**
PEOPLE TO 72,915
-2%



LABOR FORCE
DECREASED BY **54**
JOBS TO 45,640 JOBS
-0.1%



STATE GOVERNMENT
JOBS DECREASED BY
700 JOBS TO 4,823
-12%



PASSENGER ARRIVALS
FROM OUTSIDE THE
REGION INCREASED BY
+13% 173,000
PEOPLE



HEALTH CARE WAGES
IN THE REGION
INCREASED BY **\$22**
MILLION A GAIN OF
13%

Southeast Alaska has been experiencing rough economic times, but there are bright points in the region. While the state sector has struggled, we have seen sustained growth in the tourism industry, and there are indications the economy is beginning to stabilize.

Dramatic cuts reduced state sector employment in the region by 15% since 2012, a loss of 850 jobs, and an estimated \$50 million in lost annual wages. By comparison, the rest of the state experienced a 7.5% decline in state jobs during the same period. State spending cuts have curtailed growth in other industries, especially construction.

The regional population declined for the third year in a row, by a combined 1,600 people. About half the population loss consisted of children and 20-somethings leaving Juneau, the community most impacted by cuts in state employment.

The seafood industry has been struggling. A poor 2016 harvest led to the loss of 500 jobs; and while the 2017 harvest was on par with 10-year averages, neither the jobs nor the Chinook returned. Chinook harvest levels are the lowest on record. Additionally, the fishing industry is facing the potential impacts of the president's seafood tariffs.

The ferry system continues to face significant cuts, reducing ridership by 20% in the last

three years, and bringing 35% fewer visitors to the region. Layoffs were announced at the Ketchikan shipyard, and Ocean Beauty is permanently closing its Petersburg cannery. Just under half of regional business leaders called the Southeast business climate "poor" or "very poor" in 2018, up from 29% in 2015.

But not all indicators are bad. There were 380 more jobs in 2017 than in 2016, and we are less than 400 jobs below peak employment levels of 2013. This is almost entirely thanks to massive growth in tourism – specifically cruise ship tourism. Between 2010 and 2019, cruise passenger numbers are projected to increase by 55%, with 1.36 million cruise visitors expected to sightsee here in 2019. Jobs in the visitor industry increased by nearly 2,000 year-round equivalent workers since 2010, and visitors to Southeast spent \$657 million here last year.

Jobs are poised to expand in health-related fields. Mining and tribal government employment grew last year. Oil prices are improving, and there is hope that this, combined with a permanent fund restructure, will stabilize the government sector.

Looking forward, Southeast Alaskans remain optimistic about the future, with two-thirds of Southeast Alaska business leaders expecting their prospects to be positive or to improve in 2019.

A Message from Southeast Conference

Incoming President Dennis Watson



Dennis Watson served as Craig Mayor for 26 years, he was Chairman of the Statewide Conference of Mayors, he served as the president of the Southeast Conference of Mayors several times, was a commercial salmon fisherman for 40 years, and is currently the General Manager of the Inter-Island Ferry Authority.

My first Southeast Conference meeting was in 1979. I remember

Southeast Conference feeling a bit overwhelming in the beginning because there were so many issues in the region that I was not familiar with, and they were complex. I was very young and ruffled a lot of feathers back then. I stormed out of a meeting early on, only to have the person I was upset at chase me down. He said, "Are you going to call me a name and stomp off, or are you going to have a beer with me?" I've never forgotten that. Because we can disagree, but at the end of the day it's far more productive if we sit down and work through these difficult issues than to leave them hanging. That's what Southeast Conference is all about – diverse people coming together for the sake of our region. After nearly 40 years of involvement in the organization it is my turn to serve as president of Southeast Conference.

I'm really happy with the course that Southeast Conference is taking. It's working really well right now, we have really good mechanisms in place, and I want to stay on the track we are on. We have legacy issues we have always supported. The ferry system has always been the heart of Southeast Conference. We also have areas that are new to Southeast Conference, such as mariculture, which has great potential and is a great fit for our region. Once the mariculture movement comes to fruition it will go a long ways toward smoothing out the seasonal nature and cyclical economic swings associated with so many Southeast Alaska communities. Southeast Conference is growing, but at the same time we can't take on too many issues and still be effective. We need to remain open-minded, but not get ourselves in the position where we have too much on our plate. I am one of the old grey beards now, and I am glad to see that there are young people coming into Southeast Conference. It's the direction that Southeast Conference is moving, and I hope even more young people will become involved.

Executive Director Robert Venables



What a year! Southeast Conference and its members have not been deterred by the challenges of tough economic times. We have seen major steps forward in the past year. The christening of Alaska's first ever locally-constructed ferry was a major milestone for Southeast. We've seen a big step up in tourism visitations with more increases on the way. The regulatory regime in Washington D.C. seems to be turning the corner with more of a willingness to receive input from the citizens who work in and on these federal lands. The introduction of HB 412 was a major milestone for the AMHS Reform initiative.

But in spite of the good news, the grim realities remain that the state and region are still beset by fiscal uncertainty, population numbers are still declining, regulations continually complicate due process, and there is still much work to be done. And where we've seen success in sectors like tourism, we must remain vigilant to nurture those gains and build on the progress. And there is much work to be completed in transforming AMHS into a reliable entity again. Our challenge is to bolster the weak economic sectors while sustaining and nurturing the successful and promising economic engines.

So this year we continue to "Navigate the Southeast economy". That's been our goal since 1958 when our first board gathered and advocated for the creation of the Alaska Marine Highway System. Our partnership with Central Council brings a wide array of resources to ensure the greatest support possible is available to communities and businesses in the region. With our collective efforts to partner and plan strategically, we have already laid the foundation to support and strengthen the capacities that can lead to an economic rebound as part of our regional planning efforts. Our annual meetings allow our regional stakeholders an opportunity to gather information, network, and collaborate toward success. Our members and partners are the strength of Southeast Conference – and the reason for our successes, past, present and future. Together we set the stage for future generations to live work and play in healthy communities in Southeast Alaska!

The mission of Southeast Conference is to **undertake and support activities that promote strong economies, healthy communities and a quality environment in Southeast Alaska**. As the state and federally designated regional economic development organization, Southeast Conference serves as the collective voice for advancing the region's economy. We have 200 member organizations representing 1,200 people from 32 regional communities. We started 60 years ago with a group of people supporting the establishment of a regional transportation system, leading to the formation of the Alaska Marine Highway System. Our members stayed together through more than a half-century to focus on concerns unique to the region.

Credit: Front cover photo of Elfin Cove by Bo Ryan Photography. Back cover photo by Ron Gile.



THREE YEARS OF CHANGE: 2014 to 2017

Table tracks key Southeast indicators over the past 3 years, along with associated changes.

DEMOGRAPHICS	2014	2017	% CHANGE 2014-2017	CHANGE 2014-2017
Population ¹	74,518	72,915	-2%	-1,603
Ages 65 and older ²	9,243	10,579	14%	1,332
Under Age Five ²	4,622	4,227	-8%	-389
Twenty somethings ²	9,398	8,640	-8%	-767
K-12 School District Enrollment ³	11,804	11,480	-1%	-159
GENERAL ECONOMIC CONDITIONS				
Total Labor Force (jobs, includes self-employed & USCG) ^{1,5,6}	45,694	45,640	-0.1%	-54
Total Job Earnings ^{1,5,6}	\$2.174 billion	\$2.196 billion	1%	\$21.8 million
Total Private Sector Payroll ^{1,6}	\$1.408 billion	\$1.427 billion	1%	\$18.8 million
Average Annual Wage ¹	\$47,593	\$48,113	1%	\$520
Annual Unemployment Rate ¹	7.10%	6.30%	-1%	-1%
TOP ECONOMIC SECTORS				
GOVERNMENT				
PUBLIC SECTOR: 35% OF ALL EMPLOYMENT EARNINGS				
Total Government Employment ^{1,5}	13,602	13,256	-3%	-346
Federal Employment ^{1,5} (8% of all employment earnings)	2,110	2,110	0%	0
State Employment ¹ (14% of all job earnings)	5,504	4,823	-12%	-681
City and Tribal Employment ¹ (14% of all job earnings)	5,988	6,323	6%	335
Total Government Payroll (includes USCG) ^{1,5}	\$765.8 million	\$769.0 million	0.4%	\$3.2 million
Total State of Alaska Payroll	\$311.3 million	\$286.1 million	-8%	-\$25.2 million
VISITOR INDUSTRY				
KEY INDUSTRY: 11% OF ALL EMPLOYMENT EARNINGS				
Total Visitor Industry Employment ^{1,6}	6,923	7,739	12%	816
Total Visitor Industry Wages/Earnings ^{1,6}	\$188.5 million	\$231.4 million	23%	43
Total Southeast Alaska Passenger Arrivals	1,362,737	1,535,755	13%	173,018
Cruise Passengers ¹⁰	967,500	1,089,700	13%	122,200
Total Air Passenger Arrivals from Outside SE ¹¹	372,197	427,300	15%	55,103
Total AMHS Passengers from Outside SE ¹²	23,040	14,955	-35%	-8,085
COMMERCIAL FISHING & SEAFOOD INDUSTRY				
KEY INDUSTRY: 10% OF ALL EMPLOYMENT EARNINGS				
Total Seafood Employment (includes fishermen) ^{1,6}	4,372	3,829	-12%	-543
Total Seafood Employment Earnings ^{1,6}	\$259.0 million	\$216.5 million	-16%	-\$42.5 million
Pounds of Seafood Processed ⁷	232.9 million	227.8 million	-1%	-2,621,641
Pounds Landed (commercial seafood pounds by SE residents) ⁸	300.9 million	301.7 million	0%	788,852
Estimated Gross Earnings (ex-vessel value of pounds landed) ⁸	\$275.7 million	\$288.8 million	5%	13,103,172
Shared Fish Taxes ¹³	\$5.8 million	\$3.8 million	-34%	-\$1.96 million
HEALTH CARE INDUSTRY (PUBLIC & PRIVATE HEALTH)				
KEY INDUSTRY: 9% OF ALL EMPLOYMENT EARNINGS				
Health Care Employment ^{1,6}	3,323	3,426	3%	103
Health Care Wages ^{1,6}	\$174.5 million	\$196.7 million	13%	\$22.2 million
MARITIME ECONOMY (Includes employment from all industries)				
TOP SECTOR: 27% OF PRIVATE SECTOR EMPLOYMENT EARNINGS				
Private Maritime plus USCG Employment ^{1,5,6}	6,768	6,275	-7%	-493
Private Maritime plus USCG Wages ^{1,5,6}	\$395.5 million	\$369.4 million	-7%	-\$26.1 million
OTHER SELECTED STATISTICS				
2014				
2017				
% CHANGE				
CHANGE				
Construction Employment ^{1,6} (6% all employment earnings)	2,168	1,932	-11%	-236
Mining Employment ¹ (4% of all employment earnings)	783	886	13%	103
Price of Gold ⁷	\$1,266	\$1,257	-1%	-\$9.00
Total Southeast AMHS Ridership ¹²	242,648	193,121	-20%	-49,527
Cost of Living: Consumer Price Index ¹	215.805	218.873	1%	3.07
Housing Starts: Housing Permitted /Completed ^{4,1}	321	175	-45%	-146
Avg. Daily Volume ANS Oil Production (mbbls/day) ¹⁴	512,810	526,687	3%	13,877
Annual Avg. Domestic Crude WTI Oil Prices (in \$/Barrel) ¹⁴	\$97.88	\$54.25	-45%	-44

Sources: ¹Alaska Department of Labor (ADOL); ²ADOL Southeast Alaska Population by Age, 2014 to 2017; ³Alaska Department of Education and Early Development; ⁴Based on the quarterly Alaska Housing Unit Survey, a survey of local governments and housing agencies; ⁵US Coast Guard; ⁶2016 US Census Nonemployer (self-employment) Statistics; ⁷Kitco Metals Inc.; ⁸ADF&G Southeast Alaska Commercial Seafood Industry Harvest and Ex-Vessel Value Information, 2014-2017; ⁹McDowell Group & Cruise Line Agencies of Alaska; ¹⁰US Bureau of Transportation Statistics (RITA); ¹¹Alaska Marine Highway System data; ¹²Shared Taxes and Fees Annual Report FY16, ADOR; ¹³Alaska Department of Revenue Crude Oil and Natural Gas Prices.

The Whole Southeast Alaska Economy 2017

In 2017, Southeast Alaska gained 380 year-round equivalent jobs and \$17 million in workforce earnings over 2016. Approximately a quarter (26.1%) of regional workers are non-residents.

Annual Average Jobs

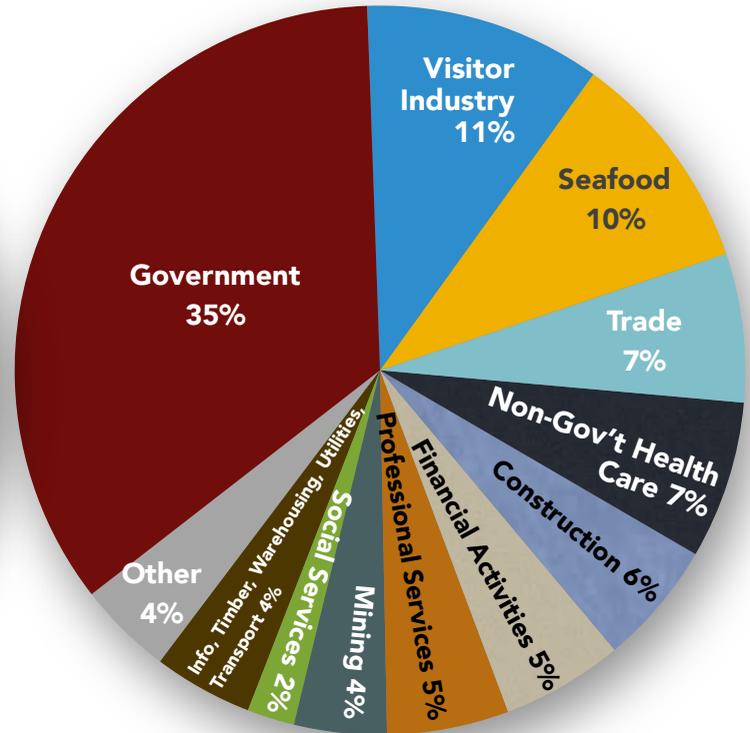
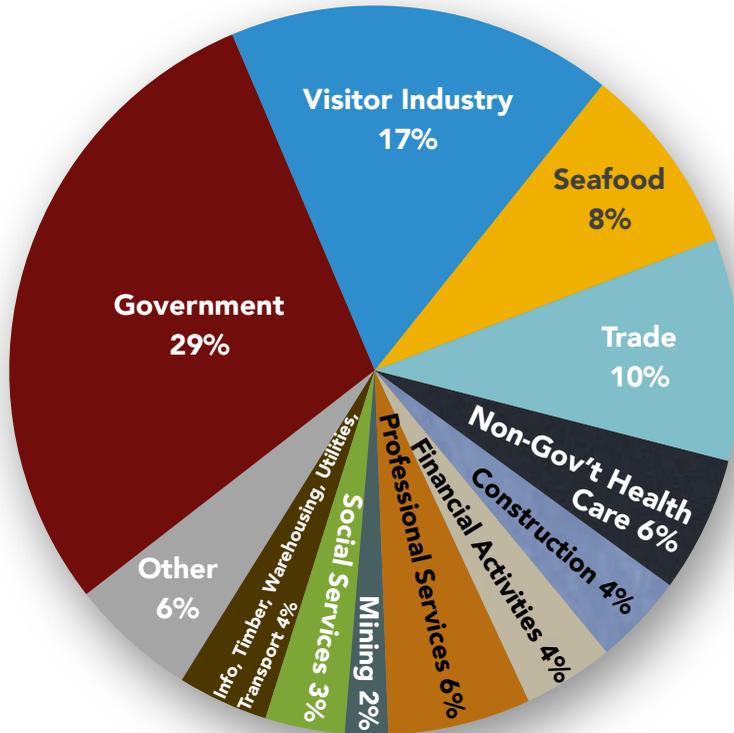
45,640 Jobs

UP 380 JOBS IN 2017 +1%

Employment Earnings

\$2.2 Billion Workforce Earnings

UP \$17 MILLION +1%



2017 Southeast Alaska Employment Earnings

	EMPLOYMENT RELATED EARNINGS			EMPLOYMENT NUMBERS		
	Wages (2017)	Self-Employment Earnings (2016)	Total Earnings	Annual Average Employment (2017)	Self-Employed (2016)	Total Employment
Government (includes Coast Guard)	\$713,886,153	\$55,131,954*	\$769,018,107	12,609	647*	13,256
Visitor Industry	\$197,406,906	\$33,948,000	\$231,354,906	6,817	922	7,739
Seafood Industry	\$66,697,431	\$149,790,000	\$216,487,431	1,567	2,262	3,829
Trade: Retail and Wholesale	\$116,815,553	\$28,338,000	\$145,153,553	3,914	560	4,474
Health Care Industry (private only)	\$135,691,727	\$14,364,000	\$150,055,727	2,487	245	2,732
Construction Industry	\$86,843,047	\$35,025,000	\$121,868,047	1,351	581	1,932
Financial Activities	\$52,944,548	\$65,595,000	\$118,539,548	1,101	863	1,964
Professional and Business Services	\$75,114,752	\$43,339,000	\$118,453,752	1,570	1,299	2,869
Mining Industry	\$89,447,347	\$1,025,000	\$90,472,347	875	11	886
Social Services	\$41,705,348	\$4,419,000	\$46,124,348	1,352	228	1,580
Information (publishing, broadcasting, telecomm.)	\$22,538,233	\$1,411,000	\$23,949,233	517	54	571
Timber Industry	\$16,698,257	\$2,036,000	\$18,734,257	302	52	354
Warehousing, Utilities, & Non-Visitor Transport	\$41,206,826	\$12,719,000	\$53,925,826	766	137	903
Other	\$66,902,298	\$24,854,000	\$91,756,298	1,619	932	2,551
Total	\$1,723,898,426	\$471,994,954	\$2,195,893,380	36,847	8,793	45,640

Sources: Alaska Department of Labor 2017 Employment & Wage data; 2016 (latest available) US Census Nonemployer (self-employment) Statistics; 2017 US Coast Guard employment & wage data. *These cells in Government refer to 2017 active duty Coast Guard personnel employment and wages, and not self-employment data.

Notes: Seafood Industry includes animal aquaculture, fishing & seafood product preparation (NAICS 1125, 1141, 3117), and Southeast Alaska resident commercial fishermen (nonresident fishermen & crew excluded; resident fishermen who did not report income are excluded). Visitor Industry includes leisure & hospitality, and visitor transportation (air, water, scenic) (NAICS 71, 72, 481, 487, 483). Timber includes forestry and logging support activities for forestry, and wood product manufacturing (NAICS 113, 1153, 321).



THE VISITOR INDUSTRY

Chart: Southeast Alaska Cruise Passengers 2009-2019



Visitor Industry 7,740 Annual Avg. Jobs

UP 160 JOBS IN 2017 +2%

In 2017 the visitor industry continued to be the largest private sector industry, both in jobs and, since 2016, in total workforce earnings (see chart on page 4). The visitor industry accounted for 17% of regional employment (7,740 annual average jobs) and nearly a quarter (24%) of all private sector employment. Since 2010, visitor industry employment has grown by 32%, with 1,900 new jobs. Those working in the visitor industry earned \$231 million in 2017—or 11 percent of all regional employment income. The average annualized wage in the visitor industry is \$29,900 (significantly lower than the average regional wage of \$48,000).

In 2017, 1.5 million air, ferry, and cruise passengers came to Southeast Alaska from outside the region, a 13% increase over 2014. Airline passenger traffic from outside the region grew 15%, and cruise passenger traffic to the region increased by 13%. During this period, ferry arrivals from outside the region fell by 34% due to decreases in funding and service.

CRUISE SHIP TRAFFIC

Most visitors to the region (70%) come by cruise ship, and cruise passenger traffic has seen massive increases in recent years.

Between 2010 and 2019, the number of cruise passengers arriving in the region is projected to increase by a staggering 55%, including one-year growth of 17 percent expected from 2018 to 2019. Southeast Alaska is expected to receive 4.3% of all global cruise ship passengers in 2018.

In 2018, 34 cruise ships are scheduled to visit the region, carrying 1.165 million passengers on 519 voyages. Ships are getting larger. To handle this change Juneau recently built two new Panamax docks, giving the capital city capacity to host four 1,000-foot plus vessels at a time. The City of Ketchikan is working on a similar berth expansion.

In 2018 Norwegian Cruises added the Norwegian Bliss to the fleet, the first cruise ship custom designed for Alaska waters. It the largest cruise ship to serve Alaska with a length of 1,094 feet, and a capacity of 4,004 passengers and 1,716 crew. Windstar Cruises restarted service to the region in 2018 after a more than 20-year absence, and Princess added a ship.

In 2019, Viking Cruises, Cunard Cruise Line and the upscale Azamara Cruises will each send ships to Alaska for the first time, and the Norwegian Joy, sister ship to the Bliss, will reposition from China.

KEY ECONOMIC DRIVER

Southeast Alaska is the most visited part of

the state, with two-thirds of all tourists coming to the region. One-third of all Alaska visitor spending occurs in Southeast, where visitors spent an estimated \$657 million in 2016. Average spending by visitor was \$487 per person according to the Alaska Visitors Statistic Program. In Juneau, those arriving by plane spent nearly four times as much as those arriving by cruise ship.

INCREASED JET SERVICE

For the third year in a row, in 2017 Southeast Alaska saw a record-breaking number of airline passengers from outside the region, with 427,300 arrivals. This year is likely to shatter records again; as of July 2018, airline passenger arrivals were up 3% over the first half of 2017.

VISITOR OUTLOOK

The visitor industry has the strongest outlook of all Southeast Alaska industries. Alaska's popularity as a visitor destination has continued to grow. In 2018 Glacier Bay was rated the best cruise designation in the world by cruisers. More Americans are traveling due to a strong national economy and international travel destinations are increasingly perceived to have security risks. Cruise passenger arrivals are expected to continue to rise as larger, higher-capacity vessels visit the region. Air arrivals are also expected to grow. Along with increased visitors, the number of jobs and associated income in this sector will continue to rise.

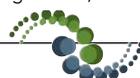
Glacier Bay was the highest-rated cruise destination in the world in 2018. *Cruise Critic*



Sources: Combination of ADOL 2017 Employment and Wage data and 2016 US Census Nonemployer (self-employment) Statistics; McDowell Group; US Bureau of Transportation Statistics (RITA); Alaska Marine Highway System; Cruise Line Agencies of Alaska; Cruise Market Watch; Cruise Critic; Juneau International Airport Passenger Statistics; Economic Impact of Alaska's Visitor Industry. Forecast 2020 U.S. Department of Commerce, US Office of Travel and Tourism Industries. OMB budgets.

Note: In this analysis, the visitor industry includes leisure and hospitality businesses, along with air, water & scenic transportation companies.

Photo Credit: Panorama of downtown Ketchikan Grey82 / Shutterstock.com



SOUTHEAST MARITIME: 6,275 Jobs

Private and US Coast Guard Maritime Employment & Workforce Earnings



Fishing & Seafood Processing

Jobs: **3,829**
Wages: **\$216.5 M**
Change in jobs 2014-17: **-12%**



Marine Tourism

Jobs: **1,079**
Wages: **\$36.4 M**
Change in jobs 2014-17: **+18%**



US Coast Guard

Jobs: **780** (Active Duty and Civilian)
Wages: **\$67.9M**
Change in jobs 2014-17: **+2%**



Marine Transportation (Excluding Tourism)

Jobs: **371**
Wages: **\$26.3M**
Change in jobs 2014-17: **-7%**



Ship Building, Repair, Marinas

Jobs: **326**
Wages: **\$16.4 M**
Change in jobs 2014-17: **+41%**



Marine-Related Construction

Jobs: **23**
Wages: **\$1.9 M**
Change in jobs 2014-17: **-65%**

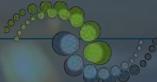


Southeast Private & USCG Maritime Economy 2014-2017

Total Jobs 2017: **6,275**
Total Wages 2017: **\$369 Million**
Change in jobs since 2014: **-493**
Change in jobs by percent: **-7%**
Change in earnings since 2014: **-\$26 Million**
Change in earnings by percent: **-7%**

Photo by Vigor Ketchikan.

For methodology, notes, and sources, see [www.raincoastdata.com/sites/default/files/Maritime by the Numbers.pdf](http://www.raincoastdata.com/sites/default/files/Maritime%20by%20the%20Numbers.pdf)



THE SEAFOOD INDUSTRY

VALUE & POUNDS OF SEAFOOD LANDED SOUTHEAST ALASKA 2008 TO 2017



Southeast Seafood Industry 3,829 Jobs

DOWN 6 JOBS IN 2017

As a whole, the regional 2017 fishing season was average, with total pounds landed and catch value similar to regional 10-year averages. The Southeast Alaska seafood harvest in 2017 was 302 million pounds with an ex-vessel value of \$289 million. The season was significantly better than the 2016 season, which was the worst in more than a decade. Despite an improved harvest, the 500 seafood jobs lost in 2016 failed to return in 2017.

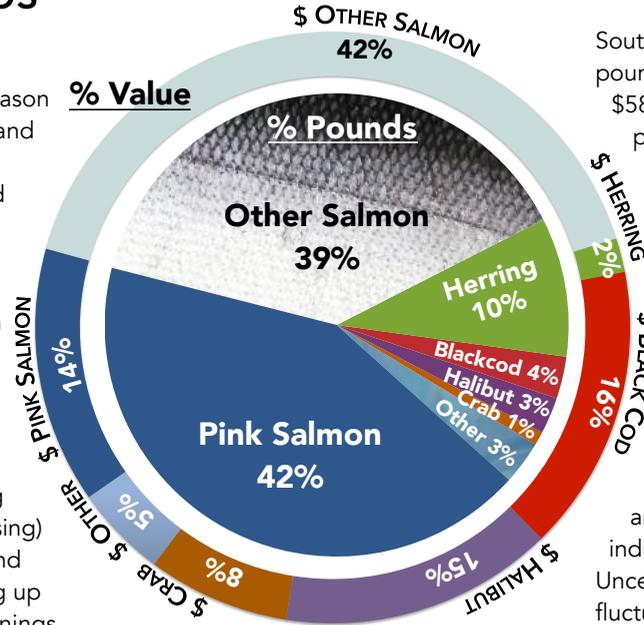
KEY ECONOMIC DRIVER

The regional seafood industry (including commercial fishing and seafood processing) generated 3,829 annual regional jobs and \$216 million in earnings in 2017, making up 8% of jobs in the region and 10% of earnings (down from 12% two years ago). Those working in our region's seafood industry earned \$216 million dollars in 2017. These figures exclude nonresident commercial fishermen and crew members.

The majority of the statewide catch of Chinook, coho, keta (chum), shrimp, Dungeness crab, and the dive fisheries occurs in Southeast Alaska. In 2017, the five salmon species represented 81% of the regional seafood catch by volume, but just over half of total ex-vessel value (\$162 million). Halibut and black cod, at 7 percent of the total catch, accounted for nearly one-third of total catch value in 2017.

SEAFOOD LANDED IN SE ALASKA BY SPECIES, 2017

Outer ring = % of harvest by dollar value: \$289 million
Inner pie = % of harvest by pounds landed: 302 million pounds



Southeast Alaska processed 227 million pounds of seafood, with a wholesale value of \$580 million, a 37% increase in seafood pounds processed over 2016. State-shared fisheries taxes for processing activity in FY17 generated \$3.8 million for regional communities, a 41% increase over FY2016.

SEAFOOD INDUSTRY OUTLOOK

The preseason forecast for 2018 of 37 million salmon is far below typical years. Two-thirds of regional seafood business leaders reported an unfavorable outlook for their industry in 2018 and 2019. Uncertainty related to harvest fluctuations, Chinese tariffs, the Pacific Salmon Treaty, ADF&G commercial fisheries budget cuts, and global advances in salmon farming all contribute to concerns.

Still, there are many positive signals. "The value of fish is still high, demand is high, and it's still a great way to make a living," reports Julianne Curry, the Public Affairs Manager for Icicle Seafoods.

Despite being average as a whole, there was significant variability across fisheries in 2017. Southeast Alaska's 2017 king salmon season was the worst in 56 years of record-keeping, and the Alaska Department of Fish and Game (ADF&G) projects 2018 will be even worse. The sockeye salmon harvest was one of the poorest on record, 47% below 10-year average harvest levels, as was Dungeness crab. In contrast, 31% more halibut was caught over the 10-year average, along with 15% more keta, and a lot more shrimp.

SEAFOOD PROCESSING

In 2017, shore-based seafood facilities in

Sources: Combination of ADOL 2017 Employment and Wage data; 2016 US Census Nonemployer (self-employment) Statistics; ADF&G Seafood Production of Shorebased Plants in Southeast Alaska; ADF&G Southeast Alaska Commercial Seafood Industry Harvest and Ex-Vessel Value Information; Run Forecasts and Harvest Projections for 2018 Alaska Salmon Fisheries and Review of the 2017 Season; ADF&G March 2018; Shared Taxes and Fees Annual Report FY17, ADOR; Alaska Commercial Salmon Harvests and Ex-vessel Values, ADF&G. **Seafood Industry** includes animal aquaculture, fishing, & seafood product preparation (NAICS 1125,1141,3117) and Southeast Alaska resident commercial fishermen (nonresident fishermen & crew who did not report income are excluded). **Photo Credits:** Top: Amalga, by Alaska's Four Season Photography. Right: Hoonah Cold Storage by Peter Metcalfe.



Southeast Healthcare Industry 3,426 Jobs

UP 80 JOBS IN 2017 +2.5%

Regional healthcare employment is increasing after a half-decade of decline. Wages for the industry are up considerably, growing by \$22 million, or 13%, over the past three years. Southeast Alaska's 3,426 healthcare workers, comprising 7.5% of the workforce, earned 9% (\$197 million) of all regional wages in 2017.

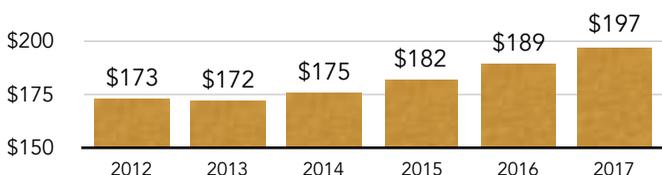
Healthcare wages had previously been relatively flat amid uncertainty over national healthcare policy and proposed Medicare cuts, and cuts to state Medicaid. But with a greater portion of the US population now accessing healthcare, more healthcare workers and physicians are needed, and there are simply not enough entering the workforce. Wages within the region adjusted upwards to remain competitive. Medical and nursing schools still graduate a similar number of students as they did two decades ago and baby boomers are leaving the work force. Southeast Alaska providers are now adjusting wages up to remain competitive, resulting in the increase in total wages.

HEALTHCARE INDUSTRY OUTLOOK

Healthcare needs in the region have been increasing due to an aging populace, and regional providers are experiencing increasing patient volumes. Early employment numbers for 2018 show significant job gains in the healthcare sector. In the first half of 2018, employment in the private healthcare sector is up 7 percent, or nearly 200 jobs. Recent business climate survey findings are likewise optimistic. Sixty percent of healthcare business leaders say they expect the healthcare sector to improve over the next year.



Total Southeast Alaska Healthcare Wages in Millions



Sources: ADOL 2017 Employment and Wage data; Kitco Metals Inc; Coeur Mining Inc. 2017 Annual Report; Hecla Mining Company 2017 Annual Report.

Photo credits: Ketchikan PeaceHealth and Hecla Greens Creek Mine.

Southeast Mining Industry 886 Jobs

UP 90 JOBS IN 2017 +11%

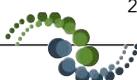
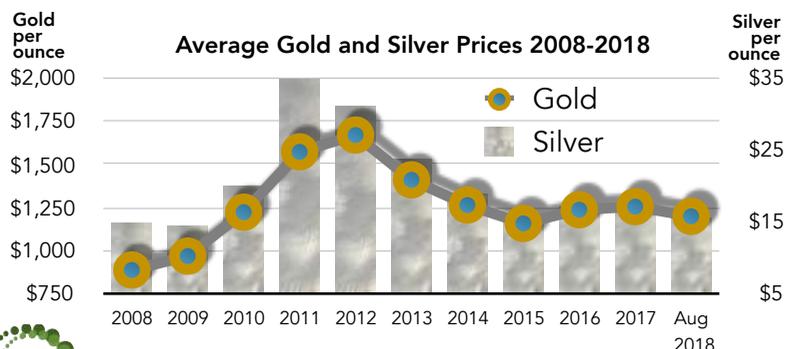
Despite significant job growth in 2017, regional mining indicators are mixed. In 2017 there were 886 annual average mining jobs in Southeast Alaska, up 11% over 2016, with a payroll of \$90 million. Two large mines operating in the region account for most mining employment. In July 2018 Hecla Greens Creek employed 431 full-time permanent employees (+13 from 2016), while Kensington had a staff of 389 (+64 from 2016). Average annual wages of \$102,000 in 2017 are down slightly from \$104,000 in 2016, but mining jobs remain the highest-paying in the region of any sector.

Hecla Greens Creek is one of the largest silver mines in the world, while the Coeur-owned Kensington is exclusively a gold mine. At Hecla Greens Creek production was down in 2017: silver was down 10% to 8.4 million ounces, zinc was down 9%, and gold production was down 6%. Production at Kensington was also down from last year, by 7%, with 115,094 ounces of gold produced in 2017.

The Dawson Mine Project, with 25 employees, is the region's next-largest mining employer. Located near Hollis on Prince of Wales Island, Dawson is a gold and silver project operated by Sundance Mining.

MINING INDUSTRY OUTLOOK

The mining sector is expected to grow slightly in 2017 and 2018. Mike Satre of Greens Creek cautions against too much optimism, noting that prices for gold, silver, lead and zinc have fallen since the start of the year.





Southeast Timber Industry 354 Jobs

DOWN 12 JOBS IN 2017 -3%

Regional timber jobs declined in 2017, continuing a trend that has reduced employment by 90 percent over the last 25 years. The workforce is down to 354 in 2017, with total earnings of \$18.7 million.

The 2014 Big Thorne timber sale enabled the last remaining mill in Southeast Alaska, Viking Lumber on Prince of Wales Island, to continue to operate. In August of 2017, a land exchange between the Mental Health Trust and the US Forest Service opened approximately 20,000 acres of land on Prince of Wales and Shelter Cove for development and timber harvest. In 2016, Sealaska, the regional Alaska Native corporation, received 362,000 acres of land under the provisions of ANCSA, and is using approximately one-third as a “working forest” including harvest activity. Today, most of the region’s timber jobs are with Sealaska and Viking Lumber.

TIMBER OUTLOOK

Regional timber supplies remain low, but the Mental Health Trust land exchange created a base level of supply, and timber jobs are expected to remain stable in the next year.

The US Forest Service is proceeding with the State’s petition to exempt the Tongass National Forest from the Roadless Rule. As a first step the Governor must appoint a task force for advice during the State’s participation in the National Environmental Policy Act process.



Southeast Construction Industry 1,932 Jobs

DOWN 100 JOBS IN 2017 -5%

For the fourth year in a row construction employment is down. Jobs fell by 100 last year to 1,932, a combined loss of 340 jobs, or 15% decline, over four years and a \$27.5 million corresponding drop in wages. Early employment data indicate construction-related employment will drop another 100 jobs in 2018. Construction workers in the region earned \$122 million in 2017—or 6% of all Southeast Alaska employment earnings.

Housing construction was also down in 2017, as 200 fewer units were permitted or completed than in the year prior, a 53% decline. This change was mostly due to a decrease in construction in Juneau.

CONSTRUCTION OUTLOOK

Legislative capital appropriations in the region dropped 96% from \$385 million in FY13 to just \$15 million in the FY19 budget. Large projects that received public funding before the 2014 oil price collapse created a construction boom that helped delay the impact of falling state spending and decreased federal spending. But few new and future projects have funding, and employment levels are expected to continue falling.

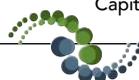


State Budget Capital Appropriations for Southeast Alaska



(Note that some DOT Public Facilities funding can no longer be broken out in a way that adequately compares to previous years.)

Sources: Combination of Alaska Department of Labor 2017 Employment and Wage data and 2016 US Census Nonemployer (self-employment) Statistics; State of Alaska Capital Budget FY12-19. **Photography credit:** Viking Lumber & Rain Coast Data



Government Jobs 2017

Local 5,350 Jobs +214
 State 4,820 Jobs -116
 Federal 2,110 Jobs +2
 Tribal 975 Jobs +100



SOUTHEAST ALASKA GOVERNMENT



Government 13,250 Jobs

UP 200 JOBS IN 2017 +1.5%

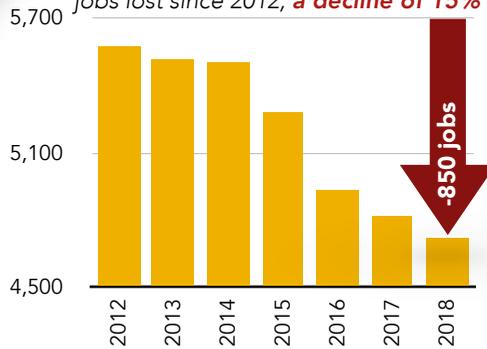
Government wages made up 35% of all regional employment earnings (\$769 million) and 29% of the region's jobs (13,250) in 2017.

STATE GOVERNMENT LOSSES

State government employment and spending have continued to decline, significantly impacting the regional economy. In Southeast Alaska, 13% of all direct wages come from the state. From 2012 through July 2018, 850 state jobs in the region were lost. This is a loss of \$50 million in annual wages and 15% of all regional state jobs; three-quarters of these losses came out of Juneau. Historically, oil paid for up to 90% of the state budget; today, oil covers about 30 percent.

Southeast State Jobs

State jobs in the region are down for the 6th year in a row, for a total of 850 jobs lost since 2012, a decline of 15%



STATE BUDGET CHALLENGE

Declining oil production and prices devastated the State of Alaska budget. State revenues fell by 70 percent from FY13 to FY 18; the budget was cut 40 percent over this period, leading to significant losses in state employment. The state has operated in deficit mode for the past five years, using more than \$14 billion in savings to cover budget gaps. Investor confidence and the state's credit rating have faltered.

LOCAL GOVERNMENT

Communities across the region are struggling financially, and relying on savings to cover shortfalls stemming from cuts to state funding and services. Despite these challenges, local government employment has grown slightly, in part as local entities assume programs and services the state has cut.

TRIBAL GOVERNMENT GROWS

Tribal government, which includes 18 entities in the region, has grown significantly, adding 100 jobs in 2017. Between 2014 and 2017, tribal wages grew by 16% to \$41 million. Richard Peterson, President of the Central Council of the Tlingit & Haida Indian Tribes of Alaska, says increased capacity has led to greater economic development and grant opportunities for tribes.

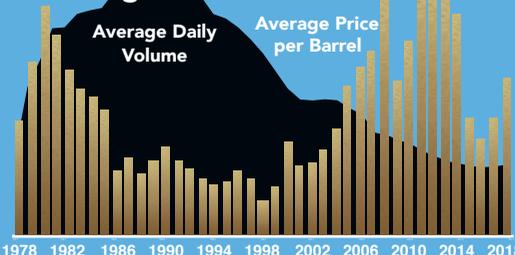
GOVERNMENT OUTLOOK

Early job reports from 2018 are mixed. State employment is predicted to decline by 2% from 2017, while all other government employment is expected to be flat, for an overall loss of 100 jobs in the region.

Avg. Daily Volume of the Trans Alaska Pipeline System and Inflation Adjusted Price Per Barrel, 1978-2018

Oil revenues accounted for up to 90 percent of the state's unrestricted revenues

How we got here



FEDERAL GOVERNMENT

Federal government employment losses are compounding state job cuts, but appear to have stabilized. Since 2005, federal employment in the region has fallen by 600 jobs (28%) worth \$50 million in wages. Federal spending decline also means fewer projects and programs that support the region.

Legislation restructuring the \$65 billion Alaska Permanent Fund passed in May 2018, opening the door for use of fund earnings to pay for state services. Although the potency of public backlash about reduced dividends remains uncertain, and additional cuts or new revenues are likely still needed, the measure is viewed as helping stabilize the state budget.

Sources: ADOL 2017 Employment and Wage data; U.S. Coast Guard; Alaska Department of Revenue. Photo Credit: Michael Penn.

DEMOGRAPHICS



POPULATION CHANGE 2014 TO 2017

	2014	2017	CHANGE
Juneau Borough	33,020	32,269	-2%
Ketchikan Borough	13,872	13,754	-1%
Sitka Borough	9,085	8,748	-4%
Petersburg Borough	3,207	3,147	-2%
Haines Borough	2,550	2,459	-4%
Wrangell Borough	2,415	2,387	-1%
Metlakatla	1,447	1,422	-2%
Craig	1,207	1,089	-10%
Skagway Borough	979	1,034	6%
Klawock	805	833	3%
Hoonah	788	773	-2%
Kake	627	604	-4%
Yakutat Borough	632	552	-13%
Gustavus	519	544	5%
Thorne Bay	532	533	0%
Angoon	420	404	-4%
Hydaburg	407	374	-8%
Coffman Cove	176	199	13%
Tenakee Springs	127	135	6%
Hollis	93	128	38%
Naukati Bay	120	119	-1%
Klukwan	84	93	11%
Hyder	93	90	-3%
Kasaan	73	80	10%
Pelican	77	67	-13%
Port Alexander	45	55	22%
Edna Bay	47	43	-9%
Whale Pass	40	43	8%
Port Protection	55	34	-38%
Game Creek	18	18	0%
Elfin Cove	16	14	-13%
Point Baker	13	13	0%
Remainder	929	858	-8%
Total	74,518	72,915	-2%

Population 72,915

DOWN 900 PEOPLE 2016 TO 2017 -1%

Between 2014 and 2017 Southeast Alaska's population decreased by 1,600. The losses were region-wide, with seven of eight boroughs reporting population declines. Only the borough of Skagway grew.

JUNEAU IS THE LOSS LEADER

Population losses were most significant in Juneau. Dramatic cuts in state employment contributed to a reduction of 900 residents over the past two years. These losses appear to be mostly comprised of young families. Between 2015 and 2017 the capital community lost more than 300 children and 400 20-somethings

SCHOOL ENROLLMENT DOWN

Regionally, K-12 enrollment decreased for the 20th time in 22 years. Since 1997 annual enrollment shrank by 3,400 students, a 23% decline across Southeast Alaska.

COMMUNITY CHANGE

Only one of the region's 34 communities - Hollis - saw consistent growth over the past three years, while every other community experienced population declines in at least one of those years. Among larger communities, Skagway and Gustavus had the most significant longer-term growth. Since 2010 both communities have grown by 27% each for gains of 223 and 115 people respectively.

AGING CONTINUES

Since 2010 the most pronounced demographic shift has been aging of the population. The 60-plus population grew by 4,500 people, a 38% increase over 2010 due to aging in place. Nearly a quarter of people in the region are now aged 60 or older. In Haines and Wrangell, it is nearly one-third. Since 2010, the number of Southeast Alaskans in their 40s shrank by 1,900 (-17%). There are 600 fewer teenagers (-7%), and 400 fewer children under five (-9%).

POPULATION OUTLOOK

As long as the state continues to reduce jobs, and payments to communities, job losses are likely to continue, and these will continue to be paired with population declines.



Sources: Alaska Department of Labor (ADOL); ADOL Southeast Alaska Population by Age, Sex and Borough/Census Area, 2010 to 2017; Alaska Department of Education and Early Development; Alaska Population Projections. Photography credits: Peter Metcalfe & Rain Coast Data

SOUTHEAST ALASKA REGIONAL OVERVIEW

78%

THE FEDERALLY-MANAGED TONGASS NATIONAL FOREST MAKES UP NEARLY 4/5TH OF ALL SOUTHEAST ALASKA

16%

OTHER FEDERAL HOLDINGS MAKE UP NEARLY ALL THE REST (MOSTLY GLACIER BAY)

3.4%

ALASKA NATIVE ORGANIZATIONS ARE THE REGION'S NEXT LARGEST LAND OWNER

2.5%

STATE OF ALASKA LANDS INCLUDE THOSE MANAGED AS PART OF THE MENTAL HEALTH TRUST

0.25%

MUNICIPAL LAND HOLDINGS

0.05%

PRIVATE LAND OWNERS

Southeast Alaska Land Ownership
Circle size = Number of Acres

THE REGION

The Southeast Alaska panhandle extends 500 miles along the coast from Metlakatla to Yakutat, encompassing approximately 33,500 square miles of land and water. The saltwater shoreline of Southeast Alaska totals approximately 18,500 miles. More than 1,000 islands make up 40 percent of the total land area. The region is home to 34 communities. The three largest communities—Juneau, Ketchikan, and Sitka—together are home to 75 percent of the regional population.

CULTURE

The dominant culture in the region is indigenous. Alaska Natives—the Tlingit, Haida, and Tsimshian—make up nearly a quarter (22.4%) of the region's population. The Tlingit have resided in the region for 11,000 years. The region's mild climate, abundant food and raw materials supported the development of highly organized and culturally advanced societies with extensive trade routes. The hospitable climate also allowed time for the development of rich artwork.

ECONOMIC TRENDS

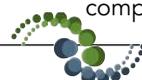
Starting in the 1880s, the economy of Southeast Alaska experienced a century of growth that intensified after statehood in 1959. From statehood into the 1990s, population and employment levels in Southeast more than doubled as the workforce expanded in the areas of mining, government, fishing, tourism, and timber. In the beginning of the 1990's seafood and timber directly accounted for a fifth of the regional economy. However, over that next decade pulp mills and sawmills in the region closed, laying off 3,200 workers. During the same period, the value of salmon declined and catch levels fell. Total Southeast Alaska wages hit bottom in 1997. The population continued to decline through 2007. Between 2008 and 2015 the region experienced a significant economic recovery, rebounding to record numbers of jobs, wages, and residents. However, the state budget crisis and the loss of 850 State of Alaska jobs changed the economic trajectory of the region.

LAND OWNERSHIP

A lack of privately owned land and land available for development is unique to Southeast Alaska and impacts the ability of the region to nurture the private sector. (See infographic on the left.) Southeast Alaska's land ownership is dominated by the federal government, which manages 94 percent of the land base. Most of this (78%, or 16.75 million acres) is the Tongass National Forest. The remaining federal lands are mostly in Glacier Bay National Park. The State manages 2.5 percent of the total land base (511,500 acres), including the Alaska Mental Health Trust Authority and University of Alaska lands. Boroughs and communities own 53,000 acres—a quarter of one percent of the regional land base. Alaska Native organizations, including village, urban, and regional corporations and the Annette Island Reservation, own 3.4 percent (728,100 acres) of the land base. Other private land holdings account for 0.05 percent of the land base. In 2017, communities received nearly \$19 million in federal Payment In Lieu of Taxes and Secure Rural Schools funding to compensate for federal ownership of the regional land base.



Sources: Personal communications with State of Alaska; US Forest Service; Sealaska. Economies in transition: An assessment of trends relevant to management of the Tongass National Forest, USDA 1998. Photo Credit: Peter Metcalfe



SOUTHEAST ECONOMIC OUTLOOK SURVEY

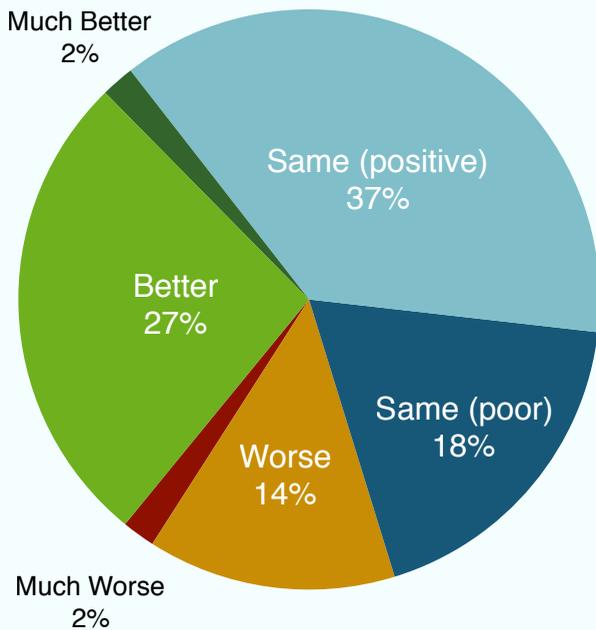
“What is the economic outlook for your business or industry over the next year (compared to the previous year)?”

CURRENT REGIONAL BUSINESS CLIMATE SURVEY

In the Spring of 2018, 232 Southeast Alaska business owners and top managers from 27 communities responded to Southeast Conference’s Business Climate and Private Investment Survey. Just over half (55%) of respondents were positive about the economy, calling the business climate “good” or “very good,” a decrease of 12% from 2015. Just under half (44%) of business leaders called the Southeast business climate “poor” or “very poor” in 2018 — up from 29% in 2015. Those in the visitor industry were most likely to be positive about the current economic climate, with 70% calling it good or very good. Those in the financial service sector were the least positive.

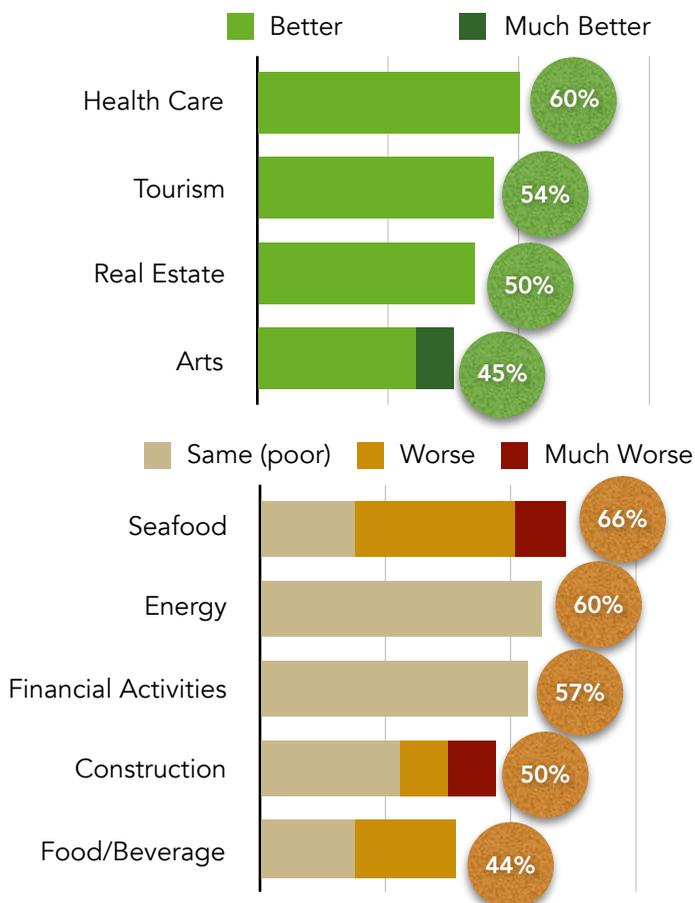
SOUTHEAST ALASKA ECONOMIC OUTLOOK

Southeast Alaska business leaders are largely optimistic about the future. More than half (55%) of survey respondents expect their prospects to remain status quo, 29% expect their prospects to improve in the coming year, and 16% expect decline. Businesses in Skagway and Haines reported the brightest outlook; while Petersburg and Hoonah leaders reported a deteriorating economic outlook. The healthcare and tourism industries reported the most positive outlook by industry, with more than half of respondents foreseeing improvement. The least optimistic sector was the seafood industry; 66% of respondents expect their industry to remain poor or to decline. Other industries with more pessimistic outlooks include energy, financial services, and the construction sector.

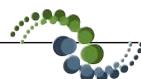
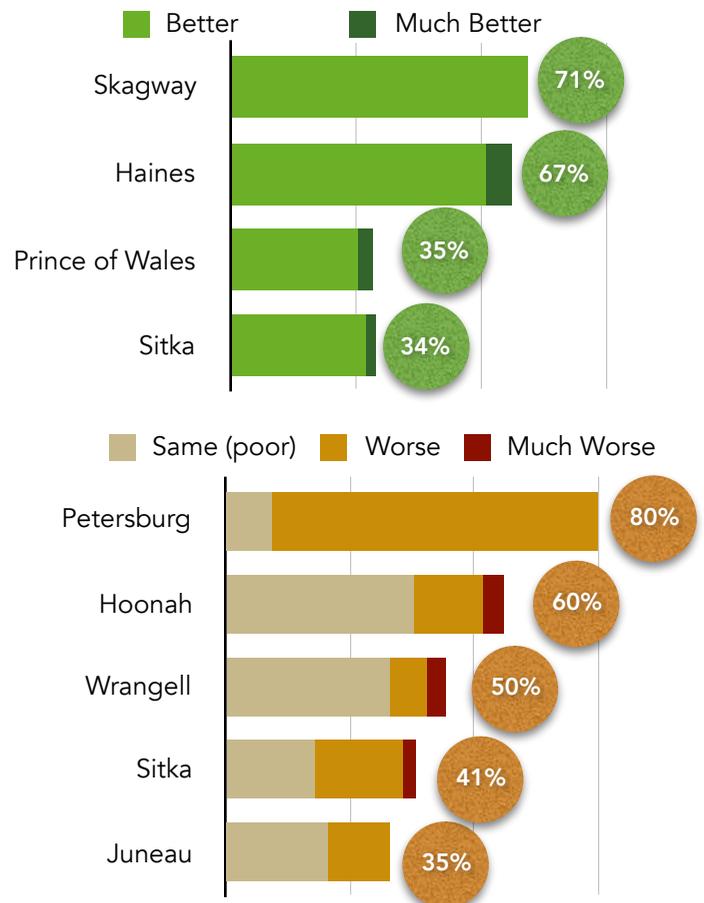


What is the economic outlook for your business or industry compared to last year?

By Industry



By Community



VOICES OF SE BUSINESS LEADERS

How has the economy impacted your business? Excerpts of survey responses by industry:

Visitor Industry: "Business is up about 15% so far this year with hopes of breaking through 17% by season's end."

"Local, business and government travel were all down this winter. However, summer business is strong."

Seafood: "I am a young fisherman. There is no feasible way that I can afford to diversify my fishing business by buying halibut quota. It is prohibitively expensive and I can't afford to buy into it (or other fisheries). ADF&G has a few questionable practices regarding King Salmon protection. The Southeast gillnet fishery has minimal impact on kings in July, and yet we are being penalized through the end of the month with severely diminished fishing time."

Information Technology: "Lack of fiscal certainty and general uncertainty in the market causes us to be more conservative, especially in hiring. Our major concern is a decline in contracting. A related concern is that if the state does decide to contract out additional work we will not have the resources to put forward - and work will be moved down south if we won't have the capacity."

Mining: "We will be looking for skilled and non-skilled labor to grow our business. Our concern is that labor is moving out of the area due to lack of jobs, making it difficult for us to fill the positions required to grow our business."

Retail Trade: "Overall business is down close to 15%. The good news is the rate of decline has slowed and seems to be bottoming out."

Construction: "Our company is in year 4+ of a 20% decrease in hours per employee to maintain cash flow as we read the signs of the stagnant and declining economy ahead of the decline in oil prices and market crash. The current political climate continues to place more regulations on businesses."

Energy: "Energy (kWh) sales are down for at least the fifth year in a row, even though we grew by about 50 customers over the same period. We believe this is due to investments in more efficient lighting and appliances."

Financial Activities: "We are continuing to grow in total asset size, income has increased, and we are looking at adding additional locations in the next few years."

Food/Beverage Industry: "We are down 23% in 2017. 2016 was down 12%. Much more and we will be out of business. The State budget crisis is affecting how people are spending money now."

Professional & Business Services: "I've actually had to travel more for business and also had to cultivate clients out of region. Money is tighter here in SE, people/ organizations/businesses have to prioritize differently and often don't seek organizational or management support even when they need it."

Real Estate: "Housing in Sitka is still tight. Our residential properties enjoy 100% occupancy. Lack of good land for development and the high price of buying and converting existing properties to moderate priced housing units are our biggest challenges."

Arts: "We have reduced staff, which means we have to reduce services which reduces revenue. Nonprofits all across the country are having to change their structure to meet the needs of the communities we exist for."

To read all 140 business leader responses, download the [Southeast Alaska Business Climate Survey 2018](#)

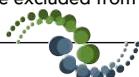
ALASKA NON RESIDENCY

Just over a quarter of all Southeast Alaska workers are not Alaskans.

When jobs and income are reported, these include workers who do not reside full time (or even in some cases part time) in Alaska. Nonresident workers in the region earned an average of \$19,017 each in 2016, and altogether they earned \$239 million, accounting for 23% of all wage earnings that year. The region's nonresident workforce primarily works in the highly seasonal seafood and visitor industries. Nearly three-quarters of the region's seafood processing workers were not Alaska residents in 2016. They earned \$31 million that year, spending some of it in the communities in which they worked, and bringing a portion of those earnings home with them at the end of the summer. Skagway has the highest concentration of non-Alaska resident workforce, where 65% of all workers are non-Alaskans. Juneau has the lowest percent of nonresident workforce participation at 19%. Government jobs have the highest level of local employees. Residency is measured by PFD eligibility status.

NON ALASKA RESIDENTS BY AREA AND INDUSTRY		
Southeast Industries	Non Alaskan workers	% Non Alaskan
Seafood Processing	2,801	74%
Arts, Entertainment, and Recreation	779	51%
Mining	490	47%
Accommodation and Food Services	1,929	41%
Retail Trade	1,362	25%
Local Governments	627	8%
State of Alaska Government	327	6%
Borough or Area	Non Alaskan workers	% Non Alaskan
Skagway Municipality	1,095	65%
Petersburg Borough	839	40%
Haines Borough	595	39%
Sitka, City and Borough	1,888	32%
Ketchikan Gateway Borough	2,633	28%
Hoonah-Angoon Census Area	322	28%
Yakutat, City and Borough	109	26%
Wrangell, City and Borough	316	26%
Prince of Wales-Hyder Census Area	830	25%
Juneau, City and Borough	3,941	19%
Total Southeast Alaska	12,568	26%
Total Alaska	89,411	22%

Sources and notes: Nonresidents Working in Alaska: 2016. Alaska Department of Labor and Workforce Development. February 2018. **Note:** Approximately 10% of nonresident workers go on to apply for a PFD. Self-employment earnings and federal wages are excluded from this analysis.



SOUTHEAST 2020 STRATEGIC PLAN SUMMARY

The Southeast Alaska 2020 Economic Plan, is a five-year strategic plan for the region. The membership worked together to develop an overall vision statement, 46 objectives, and 7 priority objectives, along with regional and industry specific SWOT analyses. More than 400 people representing small businesses, tribes, Native organizations, municipalities, and nonprofits were involved in various elements of the planning process. In 2018 this work received a national NADO Innovation Award. The Plan's objectives are listed below.

Transportation

- ★ **Priority** Minimize Impacts of Budget Cuts to AMHS and Develop Sustainable Operational Model.
- Road Development.
- Move Freight to and from Markets More Efficiently.
- Ensure the Stability of Regional Transportation Services Outside of AMHS.



Visitor Industry

- ★ **Priority** Market Southeast Alaska to Attract More Visitors.
- Improve Access to Public Lands.
- Increase Flexibility in Terms of Permit Use.
- Increase Yacht and Small Cruise Ship Visitations.
- Improve Communications Infrastructure.
- Advocate for Funding to Maintain Existing Recreational Infrastructure.
- Grow Cultural and Arts Tourism.



Energy

- ★ **Priority** Promote Priorities Of The Regional Energy Plan Including Infrastructure and Diesel Displacement
- Support Community Efforts to Create Sustainable Power Systems That Provide Affordable/Renewable Energy.
- Complete Regional Hydrosite Evaluation for Southeast Alaska.



Timber Industry

- ★ **Priority** Provide an Adequate, Economic and Dependable Supply of Timber from the Tongass National Forest to Regional Timber Operators.
- Stabilize the Regional Timber Industry.
- Work with USFS to Direct Federal Contracts Toward Locally-Owned Businesses.
- Support Small-Scale Manufacturing of Wood Products in Southeast Alaska.
- Continue Old-Growth Harvests Until Young-Growth Supply is Adequate.
- Community-Based Workforce Development.
- Update Young Growth Inventory.



Maritime

Maritime Industrial Support

- ★ **Priority** Maritime Industrial Support Sector Talent Pipeline: Maritime Workforce Development Plan.
- Continue to Grow the Regional Maritime Sector.
- Increase Access to Capital for the Regional Maritime Industrial Support Sector.
- Support Capital Investments in Expanded Marine Industry Support Infrastructure.
- Harbor Improvements.
- Examine Arctic Exploration Opportunities That the Region as a Whole Can Provide.



Other Objectives

- Housing:** Support Housing Development.
- Food Security:** Increase Production, Accessibility, and Demand of Local Foods.
- Communications:** Improved Access to Telemedicine in Southeast Alaska.



Seafood Industry

- ★ **Priority** Mariculture Development.
- ★ **Priority** Full Utilization and Ocean Product Development.
- Increase Energy Efficiency and Reduce Energy Costs.
- Regional Seafood Processing.
- Seafood Markets.
- Sea Otter Utilization and Sustainable Shellfish.
- Maintain Stable Regulatory Regime.
- Seafood Workforce Development.



- Marketing:** Market Southeast Alaska as a Region.
- Solid Waste:** Regional Solid Waste Disposal.
- Education:** Partner with University & K-12 to Meet Workforce Needs
- Arts:** Increase Recognition of Southeast Alaska's Thriving Arts Economy.
- Mining:** Minerals & Mining Workforce Development.
- Research:** Attract Science and Research Jobs to Southeast Alaska.
- Cultural Wellness:** Support Activities and Infrastructure That Promote Cultural Wellness
- Healthcare:** Meet Regional Needs.





SOUTHEAST CONFERENCE

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Mayor, Haines Borough

Dennis Watson – Vice President

General Manager, Inter-Island Ferry Authority

Alec Mesdag – 2nd Vice President

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SOUTHEAST ALASKA AND THE AMHS FERRY ROUTE



EXHIBIT 5

Government Accountability Office, *Tongass National Forest: Forest Service's Actions Related to Its Planned Timber Program Transition*, Report GAO-16-456 (Apr. 2016)



April 2016

TONGASS NATIONAL FOREST

Forest Service's Actions Related to Its Planned Timber Program Transition

GAO Highlights

Highlights of [GAO-16-456](#), a report to congressional requesters

Why GAO Did This Study

The Tongass National Forest, managed by the Forest Service within USDA, is located in southeast Alaska and is the nation's largest national forest. Since the early 20th century, the Tongass has had a timber program based on harvesting old-growth trees, which are generally more than 150 years old. In 2010, USDA announced its intent to transition the Tongass timber program to primarily harvest young growth, in part to help conserve remaining old-growth forest while maintaining a viable timber industry. As part of the planned transition, the Forest Service and other federal agencies identified actions they would take to support several economic sectors in southeast Alaska.

This report describes (1) steps the Forest Service has taken to assess whether its planned transition will meet the agency's goal regarding a viable timber industry in southeast Alaska, (2) the status of actions the Forest Service and other federal agencies stated they would take to support the timber industry and other economic sectors during the transition, and (3) options suggested by agency stakeholders for improving the Forest Service's management of the Tongass timber program. GAO reviewed laws and agency documents related to the Tongass and interviewed federal agency officials and representatives from a nongeneralizable sample of 30 stakeholder organizations—including tribal, state, and local governments and industry and conservation entities—selected to provide a range of perspectives.

The Forest Service generally agreed with GAO's findings.

View [GAO-16-456](#). For more information, contact Anne-Marie Fennell at (202) 512-3841 or fennella@gao.gov.

April 2016

TONGASS NATIONAL FOREST

Forest Service's Actions Related to Its Planned Timber Program Transition

What GAO Found

The Forest Service has initiated some steps to assess whether its planned transition to young-growth harvest on the Tongass National Forest will support a viable timber industry in southeast Alaska—a goal the Department of Agriculture (USDA) established as part of the transition. For example, the Forest Service reported refining the data it uses to estimate the amount of young-growth timber to be available for harvest over the next 100 years. Forest Service officials stated the agency also began a study in 2015, partly in response to a recommendation that year from a USDA-convened advisory committee, to compare potential market prices for young-growth timber or products to the cost to harvest and process the timber, information that may help the agency assess the economic viability of a young-growth industry in the region. The agency expects the initial results from the study to be available in 2017.

USDA and the Forest Service identified various actions they and other federal agencies would take to support four economic sectors—timber, fishing and aquaculture, tourism and recreation, and renewable energy—during the transition to young-growth harvest on the Tongass, and the agencies have taken steps to implement some of these actions. For example, USDA stated that the Forest Service would improve its planning processes to assist the owners of small timber mills in the Tongass. According to Forest Service officials and documents, the agency has lengthened the duration of some timber sales to provide small timber mills some flexibility on when to harvest in the Tongass. However, the agencies have not implemented other actions identified. For example, the Forest Service has not implemented proposed funding increases for improving fish habitat and tourism facilities in the Tongass because of other spending priorities, according to Forest Service officials.

Representative from the 30 stakeholder organizations GAO interviewed identified options they said would improve the agency's management of the Tongass timber program. These options include improving the predictability of timber available for sale and increasing the agency's focus on small timber mills and other timber-related businesses. Forest Service officials said they have taken some steps to address these options. For example, the majority of the timber industry stakeholders GAO interviewed emphasized the importance of the Forest Service offering a predictable amount of timber for sale from year to year for the timber industry to be able to make decisions about how to retool to accommodate smaller-diameter trees—which they said is important given potential changes to the industry with the planned transition to harvest young-growth trees. In an effort to improve predictability, the Forest Service has coordinated with the Alaska Division of Forestry on the timing of timber sales to try to ensure a more predictable and even flow of timber. However, stakeholders also expressed divergent opinions regarding the overall direction of the Tongass timber program, including the volume and location of timber to be harvested.

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Abbreviation List

CMAI	culmination of mean annual increment of growth
EIS	environmental impact statement
USDA	Department of Agriculture

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April 25, 2016

The Honorable Raúl M. Grijalva
Ranking Member
Committee on Natural Resources
House of Representatives

The Honorable Alan Lowenthal
Ranking Member
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
House of Representatives

The Honorable Peter DeFazio
House of Representatives

The Tongass National Forest, located in southeast Alaska, covers approximately 17 million acres and is the nation’s largest national forest. Managed by the Forest Service within the Department of Agriculture (USDA), the Tongass since the early 20th century has had a timber program based on harvesting old-growth trees—generally, trees more than 150 years old—that can be a source of high-quality lumber. Old-growth forests also can provide high-quality habitat for many wildlife species. In 2010, USDA announced its intent to transition the Tongass timber program to one based predominantly on the harvest of young growth—generally consisting of trees that have regrown after the harvest of old growth—in part to help conserve the remaining old-growth forest. A 2013 memorandum from the Secretary of Agriculture stated that within 10 to 15 years, the “vast majority” of timber harvested in the Tongass would be young growth.¹ The memorandum also stated that the transition must be done in a manner that “preserves a viable timber industry” in southeast Alaska. The Forest Service announced in May 2014 that it would amend

¹USDA, *Secretary’s Memorandum 1044-009: Addressing Sustainable Forestry in Southeast Alaska* (Washington, D.C.: July 2013).

the forest plan for the Tongass to accomplish the transition.² As part of the decision-making process for the amendment, in November 2015 the Forest Service released for public comment its proposed forest plan amendment and accompanying environmental analyses.³ The agency estimates that it will complete the forest plan amendment describing the agency's final decision regarding how it will implement the planned transition in December 2016.

Some timber industry and conservation organization representatives have raised questions about the Forest Service's management of its timber program, including its planned transition to young-growth harvest. For example, some timber industry representatives—citing the cost of retooling the industry to accommodate young-growth trees and the generally lower value of young-growth timber—have questioned whether a timber industry based on young growth is economically viable.⁴ In contrast, some conservation organizations have expressed concern that in its efforts to support the timber industry, the Forest Service will allow levels of old-growth harvest during and after the transition that are environmentally detrimental.

Because the Tongass comprises approximately 80 percent of the land base in southeast Alaska, its resources are important to the economic health of the region.⁵ For example, in addition to providing timber, the

²79 Fed. Reg. 30,074 (May 27, 2014). The National Forest Management Act of 1976, Pub. L. No. 94-588, as amended, requires the Forest Service to develop a plan to manage the lands and resources of each national forest and revise each plan at least every 15 years. A forest management plan provides a framework for integrated resource management and for guiding project and activity decision making on the forest. Plans also include standards and guidelines that affect how, when, and where activities can occur and usually include provisions intended to protect specific resources such as cultural and historical resources and wilderness areas.

³USDA, Forest Service, *Proposed Land and Resource Management Plan*, R10-MB-769c (Washington, D.C.: November 2015), and *Tongass Land and Resource Management Plan Amendment: Draft Environmental Impact Statement*, R10-MB-769a (Washington, D.C.: November 2015).

⁴Old-growth timber generally has different wood characteristics than young-growth timber, such as more attractive grain patterns that make it suitable for use in higher-end finished products.

⁵The Forest Service has reported that the Tongass comprises 78 percent of the land base in southeast Alaska. See USDA, Forest Service, *Tongass Land and Resource Management Plan: Final Environmental Impact Statement*, R10-MB-603a (Washington, D.C.: January 2008).

Tongass's lands and surrounding waters help support fisheries and tourism—two economic sectors that together represent approximately 25 percent of employment in the region, according to Forest Service statistics. In announcing its planned young-growth transition, USDA recognized that the transition could reduce timber industry employment because it would shift the timber program away from its historical reliance on old-growth harvest. The department stated that four agencies—USDA's Forest Service, Farm Service Agency, and Rural Development and the Department of Commerce's Economic Development Administration—would take steps to assist the timber industry and other economic sectors in southeast Alaska as part of the transition. These other sectors include fishing and aquaculture, tourism and recreation, and renewable energy.

You asked us to review the Forest Service's management of the Tongass timber program. This report describes (1) steps the Forest Service has taken to assess whether its planned transition will meet the agency's goal regarding a viable timber industry in southeast Alaska, (2) the status of actions the Forest Service and other federal agencies stated they would take to support the timber industry and other economic sectors during the transition, and (3) options suggested by agency stakeholders for improving the Forest Service's management of the Tongass timber program.

To conduct our work, we reviewed relevant laws and agency policies, guidance, and other documentation related to the management of the Tongass in general and to the planned transition in particular. We also reviewed data on historical timber harvest from publicly available Forest Service reports and information on related agency expenditures and revenues for the Tongass. We interviewed officials and obtained information from the Forest Service's Alaska Region and the Tongass National Forest, USDA's Farm Service Agency and Rural Development, and the Department of Commerce's Economic Development Administration. We also interviewed representatives of a nonprobability stratified sample of 30 Forest Service stakeholder organizations, including tribal, state, and local government officials; representatives of the timber, fishing and aquaculture, and tourism and recreation industries; and representatives of conservation organizations. We selected stakeholders to provide a range of perspectives on the Forest Service's management of the Tongass timber program. Because this is a nonprobability sample, the views of the stakeholders interviewed are not generalizable to all potential stakeholders, but provide illustrative examples. Appendix I lists the stakeholders we interviewed. Interview questions were designed to

obtain officials' and stakeholders' views on the Forest Service's management of the Tongass timber program and the agency's planned transition to young-growth harvest.⁶

To describe steps the Forest Service has taken to assess whether its planned transition to young-growth harvest in the Tongass will meet the agency's goal of preserving a viable timber industry in southeast Alaska, we reviewed Forest Service and stakeholder documents related to the potential economic effects of the transition. Documents reviewed included the Forest Service's November 2015 draft forest plan amendment and accompanying environmental analyses, studies conducted by the Forest Service's Pacific Northwest Research Station, and documents from timber industry and conservation organizations. To obtain additional context on these issues, we interviewed agency officials and stakeholders as described above. We also visited locations in the Tongass in March and July 2015, including previously harvested areas and active harvesting sites, as well as sites on nearby lands owned by the Sealaska Corporation,⁷ to observe timber management practices in the region.⁸

To describe the actions USDA and the Forest Service stated the agencies would take to support the timber industry and other economic sectors in and around the Tongass, we reviewed USDA and Forest Service documents and, in consultation with Forest Service officials, identified three key documents identifying agency steps intended to support the transition. The three documents were USDA's 2011 investment strategy

⁶In this report, we use the following qualifiers when summarizing stakeholders' views: "few," which we define as two or three stakeholders; "some," which we define as four or more stakeholders; "the majority," which we define as at least half of the stakeholders; and "most," which we define as at least three-quarters of the stakeholders.

⁷On December 18, 1971, the Alaska Native Claims Settlement Act was enacted to resolve long-standing aboriginal land claims and to foster economic development for Alaska Natives. This federal law directed that corporations be created under Alaska state law to be the vehicles for distributing the settlement's land and monetary benefits to Alaska Natives. Sealaska is one such corporation. It conducts substantial timber harvesting and other forest management activities. For more information on Alaska Native corporations, see GAO, *Regional Alaska Native Corporations: Status 40 Years after Establishment, and Future Considerations*, [GAO-13-121](#) (Washington, D.C.: Dec. 13, 2012).

⁸We selected harvest sites to visit to observe the effects of different types of silvicultural treatments (e.g., thinning of previously harvested stands) on growth and the practices required to be taken to protect environmentally sensitive areas (e.g., not harvesting trees adjacent to streams).

for southeast Alaska, which the department developed to support the transition; a 2013 “leader’s intent” statement from Forest Service leadership in Alaska; and a 2013 memorandum from the Secretary of Agriculture.⁹ To determine the status of the actions identified, we reviewed documents, including meeting minutes from an interagency working group that included the four agencies involved, and interviewed officials from each of the four agencies. We also interviewed representatives of the 30 stakeholder organizations to obtain perspectives on the actions.

To identify options for improving the Forest Service’s management of the Tongass timber program, we interviewed representatives of the 30 stakeholder organizations to identify their views on concerns and challenges associated with the Forest Service’s management of the Tongass timber program and its planned transition and options for addressing the challenges identified. We also interviewed agency officials to obtain their insights on the options stakeholders identified.

We conducted this performance audit from November 2014 to April 2016 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

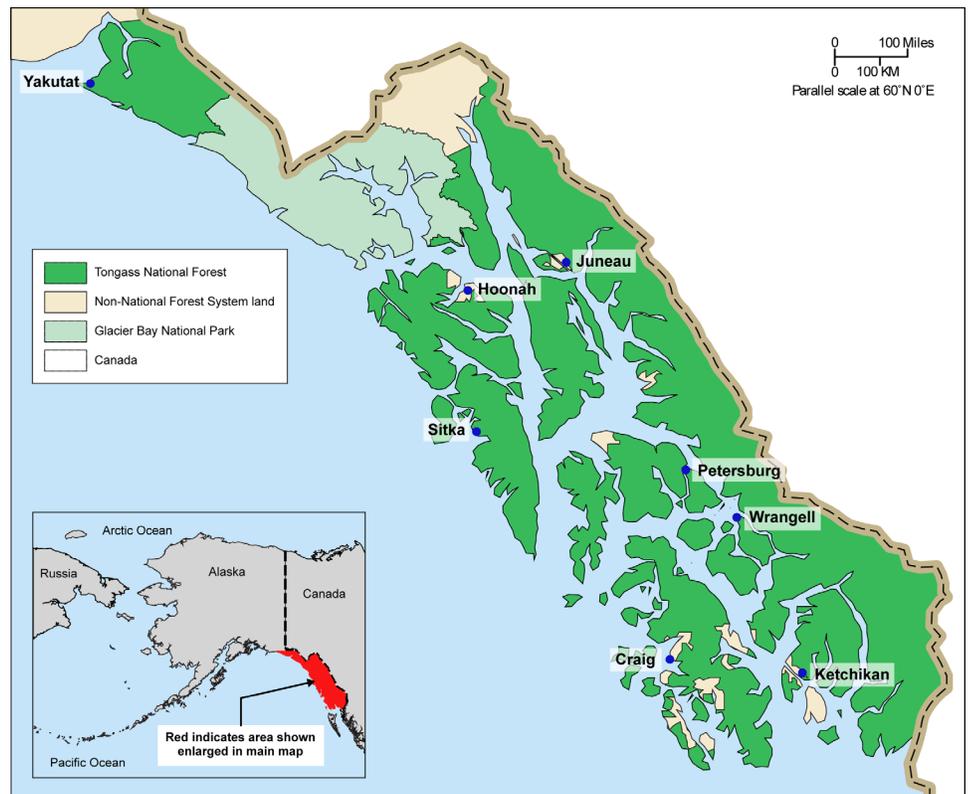
Background

The Tongass, one of 154 national forests managed by the Forest Service, is located in southeast Alaska and is the largest national forest in the country (see fig. 1). Given its size, the Tongass, within the Forest Service’s Alaska Region, is divided into 10 ranger districts. The Tongass

⁹USDA, *USDA Investment Strategy in Support of Rural Communities in Southeast Alaska 2011-2013* (Washington, D.C.: November 2011); Forest Service, *Leader’s Intent: Forest Stewardship and Young Growth Management on the Tongass National Forest* (Juneau: January 2013); and USDA, *Secretary’s Memorandum 1044-009: Addressing Sustainable Forestry in Southeast Alaska* (Washington, D.C.: July 2013).

is approximately 16.7 million acres, about 10 million acres of which are forested.¹⁰ Of the forested acres, the Forest Service classifies approximately 5.5 million acres as being “productive forest.”¹¹

Figure 1: Map of Southeast Alaska, Showing the Boundaries of the Tongass National Forest



Sources: Forest Service; MapResources (map). | GAO-16-456

Note: Non-national forest system land includes land owned by the State of Alaska, Alaska Native corporations, and individuals.

¹⁰Nonforested areas of the Tongass include areas covered by rock, ice or snow, or brush.

¹¹The Forest Service defines productive forest as forested areas that contain or can produce a minimum volume of timber per acre—specifically, either a volume of 8,000 board feet of standing timber or an annual per-acre production of 20 cubic feet of timber. A board foot is a common measure for timber volume, equivalent to a board 12 inches long, 12 inches wide, and 1 inch thick.

Like other national forests, the Tongass is managed for multiple uses, of which timber harvest is one. Timber harvest on national forests is generally carried out under timber sales conducted by the Forest Service. To conduct a timber sale, the Forest Service identifies a sale area, conducts the required environmental analyses, appraises the timber, and solicits bids from buyers interested in purchasing the timber. The Forest Service then prepares the timber sale contract and marks the sale boundary and the trees to be cut or left. The purchaser is responsible for cutting and removing the timber, with the Forest Service monitoring the harvest operations.

The Forest Service expends funds to prepare, manage, and oversee timber sales and to conduct required environmental analyses. It also receives revenues for the timber it sells.¹² The Forest Service reported an average of \$12.5 million annually in timber-related expenditures for the Tongass from fiscal years 2005 to 2014.¹³ During that period, it reported receiving an average of \$1.1 million in revenues associated with timber harvested from the Tongass.

The National Forest Management Act requires the Forest Service to develop forest plans to govern management activities such as timber harvesting. For timber harvest activities, forest plans typically identify areas where timber harvest is permitted to occur and set a limit on the amount of timber that may be harvested from the forest. The Forest Service is required by the act to update forest plans at least every 15 years and may amend a plan more frequently to adapt to new information or changing conditions. Under the current Tongass forest plan, as amended in 2008,¹⁴ the Forest Service authorized up to 267 million board feet to be harvested annually from the Tongass. The 2008 plan generally prohibits timber harvest in roadless areas and in certain environmentally sensitive areas, such as near streams and beaches. Forest plans are

¹²Revenues from timber sales are generally deposited into the General Fund of the U.S. Treasury or directed to Forest Service funds and accounts established for specific purposes.

¹³These expenditures include funds related to the planning and administration of timber sales, information that was provided to us by Forest Service budget officials and reported in the agency's annual State of the Tongass report. They do not include agency expenditures related to road construction and maintenance.

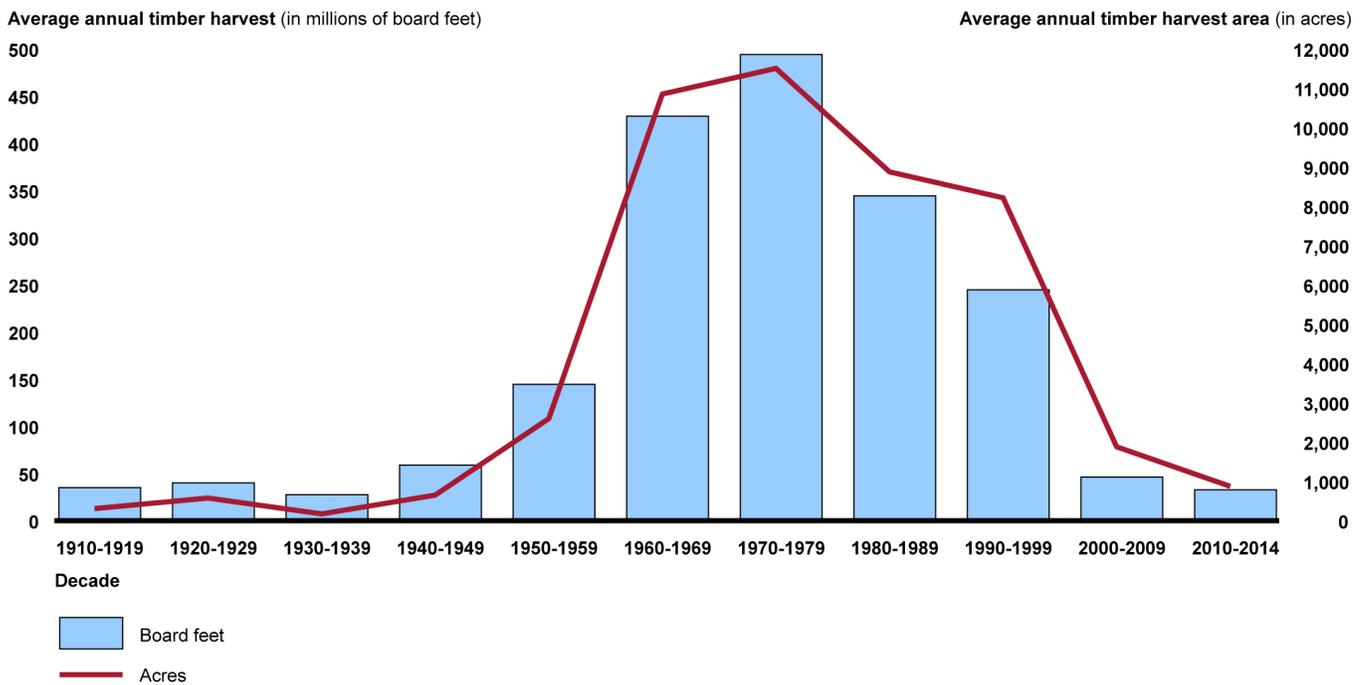
¹⁴USDA, Forest Service, *Tongass National Forest: Land and Resource Management Plan*, R10-MB-603b (Washington, D.C.: January 2008).

subject to the National Environmental Policy Act, under which the agency evaluates the likely environmental effects of its actions using an environmental assessment or, if the actions likely would significantly affect the environment, a more detailed environmental impact statement (EIS).¹⁵

The Forest Service began offering timber sales in the Tongass in the early 1900s. Timber harvest increased substantially in the 1950s, according to Forest Service statistics, as construction of pulp mills in Ketchikan and Sitka generated higher demand for Tongass timber (see fig. 2). Timber harvest peaked at an annual average of approximately 494 million board feet in the 1970s. Harvest has since declined, to an annual average of approximately 46 million board feet for 2000 through 2009 and to approximately 33 million board feet for 2010 through 2014. Timber industry employment has also declined, from approximately 2,500 in 1982 to 249 in 2014, according to Forest Service documents.

¹⁵Pub. L. No. 91-190 (1970), as amended. The National Environmental Policy Act has dual objectives: (1) requiring an agency to consider the significant environmental effects of a proposed action and (2) ensuring that the agency informs the public that it has considered environmental concerns in its decision-making process. While the act imposes these procedural requirements, it does not establish substantive standards.

Figure 2: Volume and Acreage of Tongass National Forest Timber Harvest by Decade, 1910 through 2014



Source: GAO analysis of Forest Service data. | GAO-16-456

Notes: Data come primarily from the Forest Service's Forest Products Cut and Sold reports, accessible at <http://www.fs.fed.us/forestmanagement/products/sold-harvest/cut-sold.shtml>.

A board foot is a measure of timber volume equivalent to a board 12 inches long, 12 inches wide, and 1 inch thick.

A number of laws and regulations have reduced the number of acres where timber harvest is allowed on national forests, both nationwide and in the Tongass. Specifically, according to statistics provided to us by Forest Service officials,¹⁶ of the approximately 5.5 million acres of productive forest in the Tongass, approximately 2.4 million acres are not available for harvest because of statutory provisions, such as wilderness

¹⁶A Forest Service official told us in March 2016 that the agency expects the number of acres where timber harvest will not be allowed in the Tongass to increase for a variety of reasons, which the agency refers to as "falldown." We discuss this issue in greater detail later in this report.

designations, and another 1.8 million acres are not available for harvest because of other factors, such as USDA adopting the roadless rule.¹⁷

From the early 1900s through 2014, approximately 462,000 acres of timber were harvested in the Tongass, according to Forest Service officials, a figure representing approximately 8 percent of the productive forest originally found in the Tongass. Larger trees, which are important for wildlife habitat and biodiversity, have been harvested at a higher rate; the Forest Service has reported that 20 percent of Tongass acres containing the largest classes of trees have been harvested.¹⁸ Many of the areas in southeast Alaska with the largest classes of trees, however, are located on lands not managed by the Forest Service, such as lands owned by Alaska Native corporations or the State of Alaska. Across all land ownerships, the Forest Service reported that 32 percent of the acres in southeast Alaska with the largest trees had been harvested.

In 2010, USDA announced its intent to transition the Tongass timber program to one predominantly based on young growth. The Secretary of Agriculture subsequently said that the transition would allow for more ecologically, socially, and economically sustainable forest management. In November 2015, the Forest Service released for public comment a draft EIS that analyzed five alternatives for undertaking the transition to young-growth harvest in the Tongass.¹⁹ The Forest Service expects to

¹⁷The roadless rule, 66 Fed. Reg. 3244 (January 12, 2001), issued by USDA, generally prohibits timber harvesting in inventoried roadless areas within National Forest System lands nationwide, including the Tongass. The State of Alaska challenged the rule in court, arguing that USDA's decision to issue the rule violated, among other statutes, the National Environmental Policy Act, Alaska National Interest Lands Conservation Act, and the Tongass Timber Reform Act. USDA settled the suit by agreeing to propose an amendment to the rule that would exempt the Tongass and issued such an amendment in 2003. In 2009, in response to a challenge brought by the Native Alaskan village of Kake, among others, a federal district court struck down the exemption, holding that USDA had failed to provide a reasoned basis for issuing it. The State of Alaska's effort to have this decision reversed in federal appellate court was unsuccessful. The state sought Supreme Court review, which the Court denied in March 2016. A separate challenge by the State of Alaska to the roadless rule, filed in 2011, is pending in federal court as of April 2016.

¹⁸USDA, Forest Service, *Tongass Land and Resource Management Plan: Final Environmental Impact Statement*.

¹⁹USDA, Forest Service, *Tongass Land and Resource Management Plan Amendment: Draft Environmental Impact Statement*. We reviewed the draft EIS to identify the management alternatives the Forest Service identified and the outcomes the agency projected would result from each alternative, but we did not assess the economic or scientific information the Forest Service presented in the document.

issue a final EIS describing the agency’s final decision regarding how it will implement the planned transition in December 2016. Figure 3 shows a timeline of events associated with the planned transition to young growth.

Figure 3: Timeline of Events Associated with the Forest Service’s Transition to Young-Growth Timber Harvest in the Tongass National Forest



Source: GAO analysis of Forest Service information. | GAO-16-456

The draft EIS concluded that a substantial reduction in old-growth harvest relative to what the Forest Service allowed under the 2008 forest plan (e.g., by transitioning to young-growth harvest) would enhance the Forest Service’s old-growth conservation strategy for the Tongass over the long term. In reaching this conclusion, the draft EIS noted that while many wildlife species in the Tongass are associated with more than one habitat type, most inhabit old-growth forests or prey on species that inhabit old-growth forests, and that certain areas of old-growth forest that are particularly important to many wildlife species had been heavily harvested.²⁰ It also recognized that recent legislation had removed from the Tongass certain old-growth reserves that had been designated as part of the agency’s old-growth conservation strategy.²¹

The five alternatives described different time frames for making the transition (see app. II). In developing the alternatives, the Forest Service established 46 million board feet as the projected annual timber sale

²⁰Specifically, the draft EIS reported that low-elevation old-growth forests hold the highest value for many wildlife species because they remain relatively accessible during winter and that these types of old-growth forests had been disproportionately harvested in the Tongass.

²¹In 2014, Pub. L. No. 113-291, § 3002, directed the conveyance of approximately 70,000 acres of the Tongass to the Sealaska Corporation, subject to certain conditions.

quantity—the estimated quantity of timber that the agency expects to sell each year during the first 15 years of the transition. The Forest Service considered different mixes of old- and young-growth harvest over a 100-year period, with the proportion of old-growth harvest decreasing over time until it reached the agency’s target of 5 million board feet.²² In the draft EIS, the Forest Service evaluated the five alternatives on a number of factors, including the time the agency projected it would take to reduce the annual old-growth harvest to 5 million board feet, and identified its “preferred alternative,” which the agency projected would allow it to make the transition within 16 years after adopting the forest plan amendment (see table 1).²³

Table 1: Estimated Annual Timber Harvest Levels for the Tongass National Forest under the Forest Service’s Draft Environmental Impact Statement Preferred Alternative

Type of timber harvested	Million board feet			
	Years 1-5 ^a	Years 6-10 ^a	Years 11-15 ^a	Years 16-20 ^a
Young growth	9.0	9.4	25.0	66.0
Old growth	37.0	36.6	21.0	5.0
Total	46.0	46.0	46.0	71.0

Source: GAO presentation of information in Forest Service, *Tongass Land and Resource Management Plan Amendment: Draft Environmental Impact Statement*. | GAO-16-456

Notes: The Forest Service generally defines old-growth forests in southeast Alaska as those older than 150 years. Young growth generally consists of trees that have re-grown after the harvest of old growth.

A board foot is a measure of timber volume equivalent to a board 12 inches long, 12 inches wide, and 1 inch thick.

^aYears are measured from the date the Forest Service adopts the forest plan revision for the Tongass National Forest.

To achieve the young-growth harvest levels projected in the preferred alternative, the Forest Service stated that it would allow some harvest in areas where it is not allowed under the 2008 forest plan, such as certain areas near streams and beaches. According to Forest Service officials, these areas were often among the first to undergo old-growth harvest in

²²As noted, approximately 33 million board feet of timber was harvested annually from 2010 through 2014, nearly all of which was old growth.

²³In preparing an EIS, an agency is to describe the action it is proposing as well as any alternatives it is considering. The EIS must also identify the agency’s preferred alternative if one or more exists. 40 C.F.R. § 1502.14.

the 20th century and contain some of the most mature young-growth stands in the Tongass. Without access to these areas, Forest Service officials told us, it will be difficult for the agency to achieve the young-growth harvest levels associated with the preferred alternative. As a result, Forest Service officials said, allowing limited harvest in these areas is needed for the agency to increase its harvest of young-growth timber in the early years of the transition sufficiently to reduce the harvest of old-growth timber.

Timber harvest in the Tongass also affects other economic sectors in southeast Alaska that depend on natural resources—including fishing and tourism, which, as noted, represent approximately 25 percent of employment in the region. For example, salmon, which spawn in streams in the Tongass, are key species for the commercial fishing industry, and timber harvest can alter water flow and sediment runoff, both of which can affect salmon. Timber harvest may also diminish the scenic and natural values that attract some visitors to the region, potentially affecting the tourism industry. Conversely, roads that are constructed as part of timber sales may provide easier access to hunting and berry-picking sites in the Tongass. In addition, numerous small communities are located in or adjacent to the Tongass. The Forest Service, in its draft EIS, recognized that its management decisions affect those communities and also that some communities may be disproportionately affected by these decisions.²⁴

The *USDA Investment Strategy in Support of Rural Communities in Southeast Alaska 2011-2013* identified four federal agencies with diverse missions—the Forest Service, Farm Service Agency, and Rural Development within USDA and the Economic Development Administration within the Department of Commerce—involved in actions

²⁴The draft EIS noted that 22 of the 32 communities in southeast Alaska lost population from 2000 through 2014 and that declining population is often accompanied by declining local tax bases and school enrollments. The State of Alaska has a 10-student minimum for a school to receive state funding, and the Forest Service reported in the draft EIS that five schools in southeast Alaska had closed since 2000 and eight schools were close to dropping below the 10-student threshold.

to help support the timber industry and other economic sectors as part of the planned transition to young-growth harvest.²⁵

- The **Forest Service** manages 154 national forests and 20 national grasslands for multiple uses, including timber, recreation, and watershed management and to sustain the health, diversity, and productivity of these lands to meet the needs of present and future generations.
- The **Farm Service Agency** administers a variety of programs benefitting farmers and ranchers, including farm commodity programs, farm loans, and conservation programs.
- **Rural Development** administers financial programs to support public facilities and services such as water and sewer systems, housing, health clinics, and emergency service facilities. It also provides grants, loans, and loan guarantees to farmers, ranchers, and rural small businesses to assist in developing renewable energy systems and improving energy efficiency.
- The **Economic Development Administration** fosters regional economic development efforts by, for example, offering grants to support development in economically distressed areas.

Forest Service Has Initiated Steps to Assess the Economic Viability of a Young-Growth Timber Industry in the Tongass

The Forest Service has initiated some steps to assess whether its planned transition to young-growth harvest in the Tongass is likely to support a viable timber industry in southeast Alaska—one of the key goals laid out in the Secretary of Agriculture’s 2013 memorandum discussing the transition. The Forest Service has estimated the volume of young-growth timber available for harvest over the next 100 years and has also identified a number of factors that may affect the viability of a young-growth timber industry in southeast Alaska. Forest Service officials told us the agency has also begun an effort to compare the potential market prices for young-growth timber or products to the cost to harvest, transport, and process the timber.

²⁵In addition to the four agencies identified in the *Investment Strategy*, Forest Service officials told us that another USDA agency, the Natural Resources Conservation Service, later joined the department’s efforts to support southeast Alaska during the young-growth transition by, for example, providing technical and financial assistance to private landowners for conservation actions.

Forest Service Has Estimated the Volume of Young-Growth Timber Available for Harvest in the Tongass

One key factor in the viability of the timber industry in southeast Alaska is the volume of timber—both young growth and old growth—available to be harvested.²⁶ To support its planned transition to young-growth harvest, the Forest Service identified the number of acres of young-growth forest suitable for timber production in the Tongass—251,000 acres—and used a model that projects forest growth to estimate the volume of timber those acres will contain over the next 100 years. Using this information, the Forest Service in November 2015 published its draft EIS that evaluated five alternatives for amending the forest plan for the Tongass to facilitate the transition to young-growth harvest.

In its draft EIS, the Forest Service reported taking a number of steps to refine its data on the amount of young-growth timber available for harvest in the Tongass. For example, it reported updating its young-growth timber inventory, including removing from agency databases those lands previously managed by the Forest Service that have been conveyed to other parties.²⁷ It also reported contracting with a consultant to develop the model used to project future growth and timber yields from young-growth timber stands in the Tongass.

The Forest Service also recognized that a number of factors could reduce the harvest of young-growth timber below the volume the agency estimated to be available and took steps to account for this potential reduction—referred to as “falldown”—in its estimates of young growth availability. Agency data on young-growth volume used in the draft EIS include some timber that will not be economically feasible to harvest or that is located in areas where harvest will not be allowed. For example, a Forest Service official told us that some young-growth areas consist of small or isolated areas where the volume of timber is insufficient to warrant the cost of harvesting it. In addition, timber harvest is not allowed in proximity to fish-bearing streams, and some young-growth areas may contain fish-bearing streams that were not previously identified by the agency. The official explained that factors such as these are likely to reduce the volume of young-growth that will be harvested but are often

²⁶An industry’s dependence on the availability of inputs into its production is consistent with economic principles.

²⁷As noted, in 2014, Pub. L. No. 113-291, § 3002, directed the conveyance of approximately 70,000 acres of the Tongass to the Sealaska Corporation, subject to certain conditions.

not discovered until the agency begins to prepare a timber sale in a particular area. In developing the alternatives for the draft EIS, the Forest Service reduced its estimate of the volume of young-growth timber available to be harvested to account for such falldown. The Forest Service also identified factors—such as the agency’s cost of preparing timber sales and potential delays because of appeals and lawsuits—that could affect its ability to sell the volume of timber it projected in the draft EIS.

The Tongass Advisory Committee—a group convened by the Secretary of Agriculture under the Federal Advisory Committee Act—also recognized the uncertainty surrounding the volume of timber that will be able to be harvested, and recommended in December 2015 that the Forest Service support a stakeholder group that would monitor progress in achieving the timber harvest levels proposed in the draft EIS.²⁸ In January 2016, Forest Service officials told us they agreed that monitoring would be important to help the agency and its stakeholders understand the extent to which the agency was meeting its projected harvest levels, but had not decided on how they would do so. The officials said that they expected the final forest plan amendment to describe the agency’s planned monitoring activities. Officials also told us that the Forest Service intends to continue refining its young-growth timber data, noting, for example, that in July 2015 the agency signed a cost-share agreement with the State of Alaska to survey additional young-growth areas.

Forest Service Has Identified Factors Affecting the Viability of a Young-Growth Timber Industry

In addition to the supply of timber available, the viability of a young-growth timber industry in southeast Alaska is affected by the demand for young-growth wood, which in turn is affected by the value (i.e., market price) of the wood products made from it; the value of these products depends in part on the cost of producing them. Young growth has

²⁸The Secretary of Agriculture established the Tongass Advisory Committee in 2014 to provide advice and recommendations for “developing an ecologically, socially, and economically sustainable forest management strategy on the Tongass National Forest.” The committee issued draft recommendations in May 2015 and final recommendations in December 2015. The committee has 15 members representing tribal organizations; conservation organizations; the timber industry; federal, state, and local governments; and other users of the Tongass. For more information, see <http://www.fs.usda.gov/detail/tongass/home/?cid=stelprdb5444388>. The committee was established under the Federal Advisory Committee Act, which articulates certain principles regarding advisory committees, including broad requirements for balance, independence, and transparency. Pub. L. No. 92-463, 86 Stat. 770 (1972), as amended.

different wood characteristics, such as appearance, than old growth, which can affect its value. According to the draft EIS, southeast Alaska is one of the few places in western North America that produces wood from slow-grown, large trees (i.e., old growth). Wood from such trees may have more attractive grain characteristics and be used for higher-value products—such as musical instruments or certain types of window frames and doors—where appearance is important. In contrast, the draft EIS reported that wood from young-growth trees from the Tongass is more likely to be used for lower-valued products, such as dimension lumber (i.e., lumber used for structural framing), where appearance is not as important. With regard to production costs, the Forest Service has identified several challenges facing the timber industry in southeast Alaska—including higher labor and energy costs and the industry’s distance from markets in the contiguous United States—that raise its costs compared to other timber-producing areas of North America. On the other hand, southeast Alaska is closer to Asia—historically a significant market for timber from southeast Alaska—than these other timber-producing areas, which Forest Service officials told us could result in lower relative costs to ship timber from the Tongass to Asian markets. Forest Service officials told us they recognized these factors, and that both the agency and the industry are exploring the types of products that can be produced in an economically viable manner from Tongass young growth.

Young-growth timber harvested from the Tongass can be either shipped unprocessed out of the region or processed into lumber or other products in southeast Alaska. In either case, timber and products from the Tongass compete in broad economic markets and are likely to face challenges competing in those markets, according to the Forest Service’s draft EIS. For example:

- **Young-growth logs for export.**²⁹ Exporting sawlogs (i.e., unprocessed logs) is likely to be a major component of the southeast Alaska timber industry during the transition, according to the draft EIS. The draft EIS reported that most timber harvested in southeast Alaska, including from the Tongass and from lands owned by Alaska Native corporations and the State of Alaska, is exported as sawlogs to

²⁹The Forest Service and stakeholders use the term “exported” to refer to timber shipped outside of southeast Alaska, regardless of whether that wood is shipped to other countries or to other parts of the United States.

Asia. The transition to young-growth timber may affect this market (e.g., by increasing the proportion of lower-value timber harvested), but the draft EIS indicates that the agency expects that timber purchasers are likely to continue to rely heavily on exporting sawlogs overseas. However, the Forest Service also recognized that the ability of purchasers to export sawlogs harvested from the Tongass is limited under current Forest Service policy to 50 percent of timber volume sold.³⁰

- **Young-growth lumber.** The Forest Service, in its draft EIS, concluded that demand for lumber (as opposed to unprocessed logs) produced in southeast Alaska was relatively low. The existing export market for lumber produced in southeast Alaska is primarily for higher-graded lumber made from old-growth trees, while the major use for young-growth lumber processed in southeast Alaska is likely to be for dimension lumber (i.e., lumber used for structural framing), for which demand may be lower, according to the Forest Service. In its draft EIS, the Forest Service assumed that Asian purchasers would not be willing to substitute dimension lumber produced from young-growth trees for the higher-graded lumber they had previously been purchasing. Dimension lumber produced in southeast Alaska could also be used within southeast Alaska or shipped to the contiguous United States.³¹ However, Forest Service officials and stakeholders told us that these markets are already served by relatively large, efficient mills located in the Pacific Northwest and that because production costs are higher in southeast Alaska, it will be challenging for dimension lumber from the Tongass to compete with lumber from existing suppliers. In addition, the Forest Service has reported that existing southeast Alaskan mills have limited capacity to process young growth and will likely have to invest in new milling equipment if they are to significantly expand their production of lumber produced from young growth. Forest Service officials and industry representatives also told us the industry is unlikely to invest the needed funds without more certainty about the amount of timber that will be offered for sale and harvested.

³⁰In 2007, the Alaska Regional Forester approved the Limited Interstate Shipment Policy, which generally allows purchasers to ship up to 50 percent of the total volume of a timber sale out of state, including to foreign markets, in whole log form.

³¹The Forest Service, citing an estimate by a forest products consulting group, reported that the market for dimension lumber in southeast Alaska could total approximately 100 million board feet annually.

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- **Young-growth utility logs.** Another potential use for Tongass young-growth noted in the draft EIS is as “utility logs”—that is, logs of insufficient quality to use for dimension lumber but suitable to be made into chips or used as biofuel. Increasing the use of biofuels in southeast Alaska could increase demand for utility logs from the Tongass and contribute to the viability of the timber industry in the region, according to the draft EIS. Doing so, however, would require investment in new infrastructure to produce and use these products. Forest Service officials told us that such investment is likely to be difficult because of both the uncertainty of demand in the region and the availability of large quantities of biofuel produced by facilities in the Pacific Northwest. Consistent with these statements, the Forest Service reported in a document developed to support the draft EIS that it found no evidence of market demand for utility logs from the Tongass.³²

Forest Service Has Begun an Effort to Compare the Potential Prices for Young-Growth Products to the Cost of Producing Them

The viability of the timber industry depends upon the relationship between the market price of the final product (whole logs, dimension lumber, biomass, or other products) and the cost of producing it, including the cost to harvest, transport, and process it. In preparing the draft EIS, the Forest Service analyzed information regarding the economics of the Tongass timber industry. In 2015, the Forest Service also initiated a separate study of the costs of producing products from young-growth wood and the resulting value. These officials told us they initiated the study partly in response to the May 2015 draft recommendations from the Tongass Advisory Committee and said they expect to finalize the scope and time frames for the study in spring 2016 and to receive initial results in 2017. The Forest Service scientists leading the study told us the agency plans to harvest young-growth timber from randomly selected sites within the Tongass and process the timber in several mills in southeast Alaska and the Pacific Northwest. They said the agency intends to evaluate both the mills’ efficiency in processing the young-growth wood and the strength and appearance of the resulting products and to obtain information related to the processing costs and value of the

³²J. M. Daniels, M. D. Paruszkiewicz, and S. J. Alexander, *Tongass National Forest Timber Demand, Projections for 2015 to 2030*, Gen. Tech. Rep. PNW-GTR-934 (forthcoming).

products.³³ Forest Service officials said the study's results may help the agency assess the economic viability of a Tongass young-growth timber industry. Even with these steps, however, in its November 2015 draft EIS the Forest Service stated that there is a high degree of uncertainty surrounding its goal of preserving a viable timber industry.

Federal Agencies Have Taken Steps to Implement Some Actions They Identified to Support the Timber Industry and Other Economic Sectors during the Transition

USDA and the Forest Service identified various actions they and other federal agencies would take to support the timber industry and other economic sectors during the transition to young-growth harvest in the Tongass, and the agencies have taken steps to implement some of these actions. These actions, which are identified in three documents issued by USDA and the Forest Service since 2010,³⁴ focus on four economic sectors in southeast Alaska: timber, fishing and aquaculture, tourism and recreation, and renewable energy.³⁵ However, the agencies have not implemented other actions they said they would take, because of other priorities or consideration of other approaches, according to agency officials.

Timber

USDA and the Forest Service have taken steps to implement some of the actions they stated they would take to support the timber industry in southeast Alaska during the young-growth transition. For example:

³³The study will not examine the cost of harvesting and transporting young-growth timber because the size and location of harvest sites (which affect harvest and transport costs) in the study are not representative of typical timber sales, according to Forest Service officials. One of the officials told us that the agency already has estimates of these costs.

³⁴Our review focused on actions the agencies identified in three documents: USDA, *USDA Investment Strategy in Support of Rural Communities in Southeast Alaska 2011-2013*; Forest Service, *Leader's Intent: Forest Stewardship and Young Growth Management on the Tongass National Forest*; and USDA, *Secretary's Memorandum 1044-009: Addressing Sustainable Forestry in Southeast Alaska*.

³⁵Forest Service and Rural Development officials told us the agencies contracted with the Juneau Economic Development Council to work with regional interests related to these sectors. The Juneau Economic Development Council is a private nonprofit corporation that receives assistance from the City and Borough of Juneau and the Juneau Chamber of Commerce.

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- *The USDA Investment Strategy in Support of Rural Communities in Southeast Alaska 2011-2013* stated the Forest Service would improve its Tongass timber planning processes by simplifying small timber sales to assist small-mill owners.³⁶ Forest Service officials told us the agency has met with small-mill owners to discuss ways to address the mill owners' needs. As a result of this outreach, the Forest Service lengthened the duration of some timber sale contracts for small sales; according to Forest Service officials, small sale contracts typically last from 1 to 3 years, but the agency lengthened the duration to 4 to 6 years for 8 of the approximately 60 small sales in the Tongass in fiscal years 2014 and 2015. This action provided small-mill owners with flexibility to harvest at more-advantageous times, according to Forest Service officials.
 - The 2013 *Secretary's Memorandum 1044-009: Addressing Sustainable Forestry in Southeast Alaska* stated that USDA would continue to work with Congress to exempt a limited amount of young growth in the Tongass from the general prohibition on harvesting a stand until it reaches its maximum growth rate.³⁷ The memorandum said providing this flexibility is essential for developing economically viable young-growth projects within the timeframe of the transition. In 2014, Congress approved additional flexibility, which gave the Secretary of Agriculture authority to allow the harvest of these young-growth trees in areas that are available for commercial timber harvest.³⁸

³⁶According to the Forest Service, all but one mill in southeast Alaska have 12 or fewer employees, and a Forest Service official told us the agency considers these to be small mills. The remaining mill employs about 40 people and is considered medium-sized by the Forest Service.

³⁷The National Forest Management Act generally prohibits harvesting of tree stands that have not reached their culmination of mean annual increment of growth (CMAI). 16 U.S.C. § 1604(m)(1). This is the age in the growth cycle of an even-aged stand of trees at which the average annual rate of increase of volume is at a maximum—meaning that once a stand of trees reach CMAI, its annual growth rate begins to slow. According to USDA documentation, CMAI may be thought of as the most efficient time to harvest with respect to tree growth.

³⁸Specifically, the legislation authorizes the harvest of trees prior to reaching CMAI in areas that are available for commercial timber harvest under the Tongass forest plan to facilitate the transition from commercial timber harvest of old growth stands. Pub. L. No. 113-291 § 3002(e)(4)(A). This authority is subject to certain limitations, including that covered timber sales may not exceed 15,000 acres during the 10-year period beginning on the law's enactment date (December 19, 2014), with an annual maximum of 3,000 acres sold. *Id.* at § 3002(e)(4)(B)(i).

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- *The 2013 Leader's Intent: Forest Stewardship and Young Growth Management on the Tongass National Forest* document, signed by officials from the Forest Service's Alaska Region and the Tongass, stated the Forest Service would expand collaborative projects and partnerships with local communities, businesses, and nonprofit groups to support job creation through sustainable forest management. In 2015 the Forest Service entered into a partnership with the Native and Rural Student Center, which provides leadership training and academic support to Native Alaskan college students on University of Alaska campuses, and the Hoonah Indian Association, a tribal government in southeast Alaska. Forest Service officials told us that under this partnership, a local work crew is being developed to gain forestry skills and complete projects such as tree thinning in the Tongass. The officials said the first projects under this partnership are expected to be completed in 2016 or 2017.
 - Documents on the transition issued by USDA and the Forest Service stated that the Forest Service would support the transition by studying young-growth supply, the cost of harvesting, transporting, and processing young-growth timber, and the value of the resulting products. As discussed previously, the agency has taken steps to study these issues.

The agencies have not implemented other actions they said they would take because of other priorities or consideration of other approaches. For example:

- The *Investment Strategy* stated that the Forest Service would promote and facilitate the use of young-growth timber in southeast Alaska by using young-growth wood for cabins and other recreational structures, and that the Forest Service would request an additional \$1 million in funding to construct cabins made from young-growth timber in high-visibility campgrounds. However, Forest Service officials told us that the agency did not request funding because of other spending priorities, and that no cabins have been built since the *Investment Strategy* was published in 2011.³⁹ A few conservation organization stakeholders we interviewed told us that the Forest Service's limited progress in using young-growth timber in its own facilities hinders the

³⁹Forest Service officials identified two cabins that were built using young-growth timber before the *Investment Strategy* was published: one in the Sitka Ranger District in 2008 and one in the Wrangell Ranger District in 2010.

agency's ability to achieve its goal of demonstrating the economic viability of producing young-growth products in southeast Alaska. Forest Service officials told us that other approaches, such as demonstrating the demand for dimensional lumber, might be a better option than constructing cabins for showing the economic viability of young-growth products. Forest Service officials told us the agency is collaborating with the National Forest Foundation to work with a local conservation group to demonstrate uses for young-growth timber, including the construction in 2012 of a private home built primarily from young-growth timber.⁴⁰

- The 2013 *Secretary's Memorandum* asked the Forest Service to work with Rural Development to develop a plan by December 31, 2013, for providing financial assistance to help the timber industry retool to handle young-growth timber. As of December 2015, the agencies had not developed such a plan because they had been focusing on other priorities related to the transition, such as completing the draft EIS, according to Forest Service officials. Forest Service officials told us in January 2016 that they were developing a request for proposal for an outside party to conduct an assessment of the industry's retooling needs and estimated that results from the assessment might be available in 9 to 12 months. They also said that the study the agency initiated in 2015 on the economic viability of the young-growth timber industry would provide information to inform retooling options. Rural Development officials told us the agency could provide loans to help the industry retool.

Fishing and Aquaculture

The agencies have taken steps to implement some of the actions they stated they would take to support fishing and aquaculture in southeast Alaska. For example:

- USDA's *Investment Strategy* stated the agencies would strengthen the aquaculture industry in southeast Alaska by providing support to entrepreneurs in the industry. Rural Development officials reported that in fiscal years 2012 and 2013 the agency guaranteed four loans, totaling about \$1.4 million, that supported fishing and aquaculture development in the region. Similarly, the Economic Development

⁴⁰The National Forest Foundation is a nongovernmental organization chartered by Congress that works with communities to restore and enhance national forests and grasslands.

Administration reported awarding approximately \$1.4 million in grants in fiscal years 2013 and 2014 to support fishing and aquaculture in southeast Alaska, most of which was awarded to the Hydaburg Cooperative Association, a tribe in southeast Alaska, for the renovation of a cold-storage facility to develop a specialty seafood processing plant.

- The *Investment Strategy* also stated the agencies would identify and promote ways to include aquaculture development among traditional USDA agriculture programs. Farm Service Agency officials told us the agency used an existing farm loan program to provide five loans since 2011 to parties entering the shellfish industry. These loans totaled about \$160,000 and were used to fund operational and capital expenses, according to these officials.
- The *Investment Strategy* also stated the agencies would take steps to restore degraded salmon streams in an effort to increase salmon productivity. Forest Service officials estimated, based on budget documents, that the agency's annual funding for watershed restoration in the Tongass averaged approximately \$1.1 million for fiscal years 2011 through 2015. Restoration projects included replacing and resizing road culverts to improve fish passage and placing woody debris into streams to improve fish habitat.

In contrast, the Forest Service did not implement a proposed increase in funding for fishing and aquaculture because of other priorities. The *Investment Strategy* stated that the Forest Service proposed tripling the annual funding for watershed restoration (i.e., actions intended to improve fish habitat in streams and thereby support the health of fish populations) in the Tongass to \$4.6 million annually. As noted, however, Forest Service officials estimated that agency funding for such activities averaged approximately \$1.1 million for fiscal years 2011 through 2015. A Forest Service fisheries official told us that it has been difficult to increase funding for watershed restoration in Alaska because watershed conditions in Alaska are generally better than elsewhere and the region is therefore a lower priority for the agency.

Tourism and Recreation

The agencies have implemented some of the actions they stated they would take to support tourism and recreation in southeast Alaska. For example:

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- The *Investment Strategy* stated that the Forest Service would increase guided access to public land. Since 2012, the Forest Service has increased the amount of commercial outfitting and guiding services it allowed in the Mendenhall Glacier Recreation Area, near Juneau, to meet increased demand for guided services and access to this site. This change has increased visitation to the Mendenhall Glacier by an estimated 15,000 visitors annually and, from 2012 through 2015, generated an additional \$5 million in revenues for tour companies, according to a contractor hired by the Forest Service.⁴¹
 - The *Investment Strategy* also stated that USDA agencies would take steps to develop recreation infrastructure. Forest Service officials told us the agency conducted trail improvement projects in 2015 on the Juneau, Petersburg, and Craig Ranger Districts.

In contrast, the Forest Service did not request an increase in funding for agency projects supporting tourism and recreation as proposed in USDA's *Investment Strategy*. Specifically, the strategy identified \$1.9 million in planned expenditures for fiscal years 2012 and 2013 and recommended \$8.4 million in additional funding for those 2 years. Forest Service officials told us, however, that they did not request additional funding for the Tongass and that the budget for the agency's Alaska Region declined during this time. They estimated that the region's budget for tourism and recreation decreased from \$8.8 million in fiscal year 2010 to \$6.7 million in fiscal year 2013—a decline of about 24 percent.⁴² The officials estimated that the budget for fiscal year 2014 was \$7.1 million, which was an increase of about 4 percent over the previous year's level but lower than the 2010 funding level of \$8.8 million. The selected tourism and recreation industry representatives we interviewed expressed concern about reduced funding, as they did not think the Forest Service would be able to maintain the current inventory of cabins, trails, and other recreation facilities. Forest Service officials told us the agency has focused on maintaining existing facilities rather than constructing new

⁴¹From December 2011 through June 2015, the nonprofit Juneau Economic Development Council was contracted by the Forest Service to conduct economic development research. The council worked with the Forest Service and other federal and state agencies to support economic development in southeast Alaska.

⁴²Officials provided estimates of these amounts because funds for tourism and recreation, which include funds from two larger "budget line items," are not separately identified in the Forest Service's accounting system.

ones but determined in 2014 that it would close up to 10 of the 143 cabins in the Tongass given budget reductions.⁴³

Renewable Energy

The agencies have taken steps to implement some of the actions they identified to support renewable energy development in southeast Alaska during the transition.⁴⁴ For example:

- USDA's *Investment Strategy* stated that the Forest Service would provide technical assistance related to the planning and installation of biomass energy systems. The Forest Service reported providing such assistance from 2011 through 2015 to at least 19 localities, businesses, tribal entities, and individuals. Assistance included identifying potential biomass projects in communities, evaluating the design and economic viability of projects, answering questions about biomass technology use, and identifying funding sources for projects. Forest Service officials highlighted a project at the Ketchikan International Airport as an example of the agency's efforts. The Forest Service provided technical assistance and a \$143,000 grant to convert the airport terminal to a biomass heating system. The project was scheduled to be completed in 2016, according to a Forest Service official. Similarly, the agency reported providing various types of assistance—including public presentations and education, fuel assessments, and design reviews of plans—to support the development of a biomass system for community facilities in Haines.
- The *Investment Strategy* also stated the USDA agencies would work to develop demand for biomass energy. Agencies have taken steps to do so. For example, Rural Development officials said that in fiscal years 2012 through 2014 the agency provided at least three grants,

⁴³The Senate committee report accompanying the Department of the Interior, Environment, and Related Agencies Bill for fiscal year 2016 noted that funding for recreation, trails, and facilities in the Alaska Region had declined at a disproportionately higher rate compared to other regions. The report directed the Forest Service to prioritize such funding for the Tongass and to bring investments in the Alaska Region more in line with funding nationwide. S. Rep. No. 114-70 at 63 (2015).

⁴⁴Renewable energy refers to the generation of electricity, fuels, or heat through the use of resources that are continually replenished. Sources of renewable energy include biomass fuel, hydropower, solar, and wind. For more information on the development of renewable energy on federal lands, see GAO, *Renewable Energy: Agencies Have Taken Steps Aimed at Improving the Permitting Process for Development on Federal Lands*, [GAO-13-189](#) (Washington, D.C.: Jan. 18, 2013).

totaling about \$1.2 million, to support renewable energy development in southeast Alaska.

- In the *Investment Strategy*, USDA said the Forest Service would approach the Southeast Conference organization about sponsoring the development of a biomass energy plan for the region.⁴⁵ The Forest Service has worked with the Southeast Conference to assess the potential for increasing the use of biomass energy in southeast Alaska and, in September 2015, published the *Community Biomass Handbook*, which offers instructions on designing and planning biomass projects as well as information on where biomass systems are being used in the region.⁴⁶ The agency's partnership with the Southeast Conference resulted in about 30 feasibility studies funded predominantly by the Forest Service and approximately 10 biomass systems in southeast Alaska, according to Forest Service officials.
- Also in the *Investment Strategy*, USDA said the Forest Service would, where feasible, substitute woody biomass for diesel fuel to meet the energy needs of southeast Alaska. The agency has taken some initial steps to do so. For example, officials told us that the agency was converting its facility in Sitka from diesel fuel to biomass energy, a project they expect the agency to complete in summer 2016. The Forest Service had previously converted a visitor center in Ketchikan to a wood-fueled heating system, although the building is no longer using this system, which the agency reported was too large for the facility and had high operating costs.⁴⁷

The agencies, however, no longer plan to implement some actions they previously identified, according to agency officials. For example, the *Investment Strategy* stated that, to help “kick start” the biomass energy industry in southeast Alaska, the Farm Service Agency would encourage the use of a nationwide program that provides financial incentives to the

⁴⁵The Southeast Conference, a nonprofit organization composed of 180 member organizations from 32 regional communities, advocates for resource management and economic development planning issues in southeast Alaska.

⁴⁶Forest Service, *Community Biomass Handbook, Volume 2: Alaska, Where Woody Biomass Can Work*, PNW-GTR-920 (Portland, OR: 2015).

⁴⁷Forest Service officials told us in January 2016 that the agency was working with the General Services Administration in an effort to connect the visitor center to an existing biomass heating system.

biomass industry. A Farm Service Agency official in southeast Alaska, however, told us the nationwide program is not being used in the region because funding is limited and national program officials had decided to target existing biomass industry businesses rather than new ones, and there were no such businesses in southeast Alaska.

Stakeholders Identified Options They Said Would Improve Management of the Tongass Timber Program While Expressing Divergent Opinions about the Program's Overall Direction

Representatives we interviewed from the 30 selected Forest Service stakeholder organizations identified a variety of options they said would improve the agency's management of the Tongass timber program. These stakeholders also expressed strong differences of opinion regarding the overall direction of the Tongass timber program.

Stakeholders Identified Various Options for Improving the Management of the Tongass Timber Program

Options stakeholders identified for improving the Forest Service's management of the Tongass timber program included:

- **Improving predictability of timber available for sale.** The majority of the seven timber industry stakeholders we interviewed told us the Forest Service does not offer a predictable amount of timber for sale from year to year. These stakeholders emphasized the importance of predictability for the timber industry to be able to make decisions about how to retool to accommodate young-growth trees—which they said is important given potential changes to the industry as a result of the planned transition. Options for improving predictability identified by these timber industry stakeholders ranged from offering timber sales under longer-term contracts—as a means of providing greater certainty over the quantity of timber they will be allowed to harvest in future years—to transferring significant acreage from the Tongass to the State of Alaska, an entity some timber industry stakeholders viewed as offering a more predictable timber supply than the Forest Service. On the other hand, one of the conservation organization stakeholders we interviewed said that the Forest Service could

improve the predictability of supply by reducing the volume of timber it offers for sale and offering timber for sale in locations where there will be less environmental impact, steps the stakeholder said could reduce opposition to proposed timber sales and increase the likelihood of sales being implemented in a timely manner.⁴⁸

In an effort to improve the predictability of its timber supply, the Forest Service is participating in the collaborative “all lands, all hands” effort with other southeast Alaska landowners to explore ways of achieving greater economic efficiency by sharing infrastructure and jointly planning projects. As part of this effort, Forest Service officials told us they have coordinated with the Alaska Division of Forestry on the timing of timber sales to try to ensure a more predictable and even flow of timber offered to the timber industry. Alaska Division of Forestry officials told us that this effort has been helpful but that continued work will be needed to improve collaboration among landowners on issues such as sharing costs for maintaining roads and other infrastructure.

- **Increasing focus on small timber operators.**⁴⁹ Some of the 30 stakeholders we interviewed said that the Forest Service could do more to support the small operators that also play a role in local economies throughout the Tongass by harvesting small amounts of old-growth timber. These stakeholders suggested the Forest Service take steps such as offering smaller sales and making other changes—such as allowing small operators greater use of roads constructed in conjunction with larger sales—to make it easier for smaller operators to access timber. As previously discussed, Forest Service officials told us they had taken several steps to assist smaller operators, including

⁴⁸In 2013, the Forest Service approved the Big Thorne timber sale, which was designed to provide the southeast Alaska timber industry with a steady supply of old-growth timber for several years and thus help sustain the industry until more young-growth timber was available for harvest. The Big Thorne timber sale is being challenged in court by conservation organizations. There are three cases challenging the sale: Southeast Alaska Conservation Council, et al. v. U.S. Forest Service, et al., No. 1:14-cv-00013-RRB; In re Big Thorne Project and 2008 Tongass Forest Plan, 1:14-cv-0014-RRB; Cascadia Wildlands et al. v. Cole, No. 1:14-cv-00015-RRB. The district court consolidated these cases and dismissed them. Plaintiffs’ appeal is pending before the Ninth Circuit. Southeast Alaska Conservation Council, et al. v. U.S. Forest Service, et al., Nos. 15-35232, 15-35233, 15-35244.

⁴⁹Timber operators include not only mills but also others involved in the timber sector, such as loggers and truck drivers.

lengthening the duration of some small timber sales. Officials told us that for two timber sales in 2012 and 2013, they kept several roads open for approximately 2 years after the sales were completed to allow access to remaining timber by smaller operators.

- **Improving Forest Service collaboration.** Some of the stakeholders we interviewed also said the Forest Service needed to collaborate more with the industries and communities affected by the transition—for example, by involving community leaders earlier in the decision-making process and better considering the effects of management decisions on specific locations—if the young-growth transition is to be successful. Similarly, the Tongass Advisory Committee emphasized the need for the Forest Service to become more flexible and responsive to timber industry and community interests for the transition to be successful. To help achieve that goal, the committee said Forest Service leadership needed to provide clear and consistent direction to agency staff, and the agency needed to increase the use of collaborative processes in its management decisions.

Forest Service officials identified various approaches the agency uses to collaborate with the industries and communities affected by the transition. For example, they said that the agency has participated in the Tongass Collaborative Stewardship Group, a region-wide forum for communities and landowners to work together to align Forest Service projects with local and regional priorities. The Forest Service has also participated in a number of smaller collaborative groups relating to specific geographic areas in the Tongass, including the communities of Hoonah, Kake, and Sitka, and the Stoney Creek watershed on Prince of Wales Island. One such group, the Hoonah Native Forest Partnership, includes the Forest Service, nonfederal landowners in the area, and other entities, such as the Hoonah Indian Association.⁵⁰ The partnership formed in 2015 and is still in the early stages of planning and identifying specific work, according to a Forest Service official. The partnership is taking a watershed planning approach intended to balance economic, social, and ecological outcomes and consider both timber harvest and other important resources, such as salmon and deer, that rely on forests.

⁵⁰Seven entities are members of the partnership: the Sealaska Corporation, the Hoonah Indian Association, the Huna Totem Corporation, The Nature Conservancy, the City of Hoonah, the Alaska Department of Fish and Game, and the Forest Service.

Stakeholders Expressed Divergent Opinions regarding the Overall Direction of the Tongass Timber Program

In discussing their views on possible options for improving the Forest Service's management of the Tongass timber program, stakeholders we interviewed also expressed strong differences of opinion regarding the overall direction of the program. Stakeholders expressed differing opinions on such diverse topics as the volume of timber that should be harvested, the locations where harvest should be allowed, and the proportion of harvest that should be young growth. For example, regarding harvest locations, some of the stakeholders we interviewed were concerned that the Forest Service is considering harvesting timber in environmentally sensitive areas such as near streams and beaches, which provide important wildlife habitat. In contrast, the majority of timber industry stakeholders and a few local government stakeholders we interviewed told us that the Forest Service already placed too much emphasis on minimizing the environmental effects of timber harvest and that the agency did not need to take additional steps to consider the environmental effects of the transition. Regarding the proportion of harvest that should be young growth, the majority of the timber industry stakeholders we interviewed stated that the harvest should continue to consist of old-growth trees in order to be economically viable for the timber industry, while other stakeholders stated that old-growth harvest should end entirely or be reduced to a small amount.

Agency Comments

We provided a draft of this report for review and comment to the Departments of Agriculture and Commerce. The Forest Service, responding on behalf of the Department of Agriculture, generally agreed with our findings and described actions it is taking in an effort to support various economic sectors in southeast Alaska (see app. III). The Economic Development Administration, responding on behalf of the Department of Commerce, stated in an email sent April 11, 2016, that it had no comments on our draft report.

We are sending copies of this report to the appropriate congressional committees, the Secretaries of Agriculture and Commerce, the Chief of the Forest Service, the Administrator of the Farm Service Agency, the Under Secretary for Rural Development, the Chief Operating Officer of the Economic Development Administration, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or members of your staff have questions about this report, please contact me at (202) 512-3841 or fennella@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found

on the last page of this report. Major contributors to this report are listed in appendix IV.

A handwritten signature in black ink that reads "Anne-Marie Fennell". The signature is written in a cursive style with a horizontal line underneath the name.

Anne-Marie Fennell
Director, Natural Resources and Environment

Appendix I: Forest Service Stakeholder Organizations GAO Interviewed

In conducting our work, we interviewed representatives from a nonprobability stratified sample of Forest Service stakeholder organizations. Table 2 lists the 30 stakeholder organizations whose representatives we interviewed. We selected stakeholders to provide a range of perspectives on the Forest Service’s management of the Tongass National Forest timber program. Because this is a nonprobability sample, the views of the stakeholders interviewed are not generalizable to all potential stakeholders, but they provide illustrative examples.

Table 2: Forest Service Stakeholder Organizations GAO Interviewed

Category of stakeholder	Name of stakeholder organization
Alaska Native corporation	Klawock Heenya Corporation
	Sealaska Corporation
	Shaan Seet Incorporated
Conservation organization	National Audubon Society
	Greater Southeast Alaska Conservation Community
	Natural Resources Defense Council
	The Nature Conservancy
	Sitka Conservation Society
Fishing and aquaculture industry	Southeast Alaska Conservation Council
	United Fishermen of Alaska
State and local government	City and Borough of Sitka
	City of Craig
	City of Hoonah
	City of Ketchikan
	City of Klawock
	State of Alaska, Division of Forestry
	State of Alaska, Mental Health Trust Land Office ^a
	State of Alaska, Office of the Lieutenant Governor
Timber industry	Alaska Forest Association
	Alaska Specialty Woods
	Alcan Forest Products
	Icy Straits Lumber and Milling, Incorporated
	Tongass Forest Enterprises
	Viking Lumber Company, Incorporated
Tourism and recreation industry	The Working Forest Group
	Alaska Travel Industry Association
Tribal government	Central Council of Tlingit and Haida Indian Tribes of Alaska

**Appendix I: Forest Service Stakeholder
Organizations GAO Interviewed**

Category of stakeholder	Name of stakeholder organization
	Craig Tribal Association
	Hoonah Indian Association
	Klawock Cooperative Association

Source: GAO. | GAO-16-456

^aThe Mental Health Trust Land Office manages 130,000 acres of commercial forest land.

Appendix II: Selected Characteristics of the Forest Service’s Alternatives for Transitioning the Tongass National Forest to Young-Growth Harvest

In November 2015, the Forest Service released for public comment a draft environmental impact statement that analyzed five alternatives for undertaking the transition from old-growth harvest to young-growth harvest in the Tongass National Forest.¹ Table 3 summarizes these alternatives, which described different time frames for making the transition and projected various numbers of acres from which timber would be harvested.

Table 3: Selected Characteristics of the Forest Service’s Draft Environmental Impact Statement (EIS) Alternatives for Transitioning the Tongass National Forest to Young-Growth Harvest

Alternative described in the Forest Service’s draft EIS	Years for full transition ^a	Projected acres harvested over 25 years		Projected acres harvested over 100 years	
		Old growth	Young growth	Old growth	Young growth
Alternative 1	32	40,140	7,271	62,413	201,003
Alternative 2	12	12,927	69,362	30,017	330,517
Alternative 3	13	13,856	52,094	31,198	304,792
Alternative 4	16	22,636	37,073	42,831	223,813
Alternative 5 ^b	16	23,223	37,390	43,167	261,850

Source: GAO presentation of information in Forest Service, *Tongass Land and Resource Management Plan Amendment: Draft Environmental Impact Statement*. | GAO-16-456

Note: The Forest Service generally defines old-growth forests in southeast Alaska as those older than 150 years. Young growth generally consists of trees that have re-grown after the harvest of old growth.

^aThe Forest Service defined full transition as occurring when 41 million board feet of young-growth timber could be harvested annually on a sustained basis. All alternatives also envision a minimum annual harvest of 5 million board feet of old-growth timber. A board foot is a common measure for timber volume, equivalent to a board 12 inches long, 12 inches wide, and 1 inch thick.

^bThe Forest Service identified alternative 5 as the “preferred alternative” in the draft EIS.

¹USDA, Forest Service, *Tongass Land and Resource Management Plan Amendment: Draft Environmental Impact Statement*, R10-MB-769a (Washington, D.C.: November 2015).

Appendix III: Comments from the Department of Agriculture



United States
Department of
Agriculture

Forest
Service

Washington Office

1400 Independence Avenue, SW
Washington, DC 20250

File Code: 1420
Date: APR - 7 2016

Ms. Anne Marie Fennell
Director, Natural Resources and Environment
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Fennell:

The U.S. Department of Agriculture appreciates the opportunity to respond to the U.S. Government Accountability Office (GAO) draft report "Tongass National Forest: Forest Service's Actions Related to Its Planned Timber Program Transition, (GAO-16-456)." The Forest Service generally agrees with the findings in the GAO draft report.

In July 2013, U.S. Department of Agriculture Secretary Vilsack issued a memo directing management of the Forest Service's Tongass National Forest to be more ecologically, socially and economically sustainable, while accelerating the transition to predominantly young-growth timber. The Forest Service and other federal agencies such as the Farm Service Agency, Rural Development, and the Economic Development Administration are taking action to support a number of economic sectors including timber, fishing and aquaculture, tourism and recreation, mining, and renewable energy during the transition.

The Forest Service continues to improve its planning process to assist mill owners and has lengthened the duration of timber sales to provide small timber mills greater flexibility on harvest timing. We have held numerous community meetings to gather public input on the Tongass National Forest Plan Amendment and its associated alternatives. We are working with new mariculture businesses to permit shellfish and seaweed farms; an industry ripe for growth and well suited to small communities located within the Tongass National Forest. We are moving forward with a master plan to update visitor services at the Mendenhall Glacier Visitor Center and surrounding recreational area, and have increased the number of visitor days awarded to recreational outfitter-guides. We are working with rural communities on renewable energy and hydro-electric projects to reduce the high cost of energy. We will continue to support these important economic sectors.

We will continue taking actions to address issues affecting economic sectors important to Alaskan communities. Thank you again for the opportunity to review the draft report. If you have any questions, please contact Thelma Strong, Chief Financial Officer, at 202-205-0429 or tstrong@fs.fed.us.

Sincerely,

THOMAS L. TIDWELL
Chief



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Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

Anne-Marie Fennell, (202) 512-3841 or fennella@gao.gov

Staff Acknowledgments

In addition to the contact named above, Steve Gaty (Assistant Director), Greg Campbell, Jonathan Dent, Patricia Farrell Donahue, Holly Hobbs, Richard P. Johnson, Ben Nelson, Timothy M. Persons, and Anne Stevens made key contributions to this report.

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EXHIBIT 6

Taxpayers for Common Sense, *Cutting the Tongass Timber Plan Down to Size* (Sep. 27, 2016)



Cutting the Tongass Timber Plan Down to Size

Energy & Natural Resources | Analysis

Sep 27, 2016 | 5 min read | [Print Article](#)

Recently, the U.S. Forest Service (USFS) took another step toward finalizing an amendment to its plan for managing the Tongass National Forest. By publishing the Final Environmental Impact Statement (FEIS) for its amended Tongass Land Management Plan (TLMP), the USFS further clarified how it intends to conduct timber harvests for the foreseeable future in the Tongass, the country's largest national forest located in southeast Alaska. Unfortunately for taxpayers, the amendment would provide for increasing timber sales that would produce less revenue than their cost of administration, according to USFS's own projections. That's not surprising given the agency's history of money-losing timber sales, but planning for losses is never a good plan.

Under its chosen Alternative (number 5), the Forest Service would allow loggers to harvest up to 46 million board feet (MMBF) of timber from the Tongass for each of the first 15 years after the amended TLMP takes effect. Thereafter, the maximum annual harvest would increase to 97.6 MMBF. For comparison, the average Tongass timber harvest over the last 15 years was 37.9 MMBF.



The increase in harvest volumes should be a big concern to taxpayers. The Forest Service’s track record and its projections in the FEIS indicate that timber to be harvested will be sold at a loss. Using one type of model, here’s how the Forest Service presents its expected revenues under Alternative 5 (highlighted).

**Table 3.22-17
Discounted Net Revenues by Alternative for 5-Year Increments
(Years 1 to 25)**

Alternative	Years				
	1-5	6-10	11-15	16-20	21-25
1	\$32.4	\$23.4	\$8.1	\$29.5	\$7.9
2	\$20.1	\$8.3	(\$16.9)	(\$20.9)	(\$10.7)
3	\$20.6	\$11.9	(\$12.0)	(\$17.2)	(\$6.2)
4	\$29.9	\$16.5	\$1.3	(\$5.7)	(\$1.3)
5	\$28.2	\$17.1	\$0.8	(\$2.3)	(\$1.7)

Note:
¹ Discounted net revenues are presented in \$ million

The chart simply reflects the estimated market value of the harvested timber (pond log value) minus the estimated costs of getting the logs to the mill. That is, the numbers represent what the Forest Service expects logging companies would bid for the right to harvest Tongass timber in the years to come. They do not, however, reflect any of the administrative costs the Forest Service would incur to prepare the sales of the rights to harvest that timber. Those costs, estimated at \$104 per thousand board feet (MBF), were presented separately in the FEIS:



If those costs had been taken into account, the table of discounted net revenues would look like:

Discounted Net Revenues for Alternative 5 for 5-Year Increments					
(\$ in millions)					
Alternative	Years				
	1-5	6-10	11-15	16-20	21-25
5	\$6.9	(\$0.4)	(\$13.6)	(\$27.4)	(\$22.3)

While the adjusted table clearly demonstrates that the Forest Service’s plan will result in significant losses over the first 25 years – \$56.8 million in net present value – there’s reason to believe those losses are grossly underestimated.

Indeed, Forest Service revenue projections appear to be dramatically overestimated. Working backwards from the original discounted net revenues projections (Table 3.22-17), for example, it seems the Forest Service anticipates receiving \$138/MBF harvested on average in years 1-5. But such a rate of return is unprecedented in recent Tongass history. Over the last 10 years, the Forest Service has, on average, received \$32/MBF of timber sold, or \$35/MBF of timber harvested. Expecting that historical revenue average to quadruple overnight seems highly unrealistic.

At the same time, Forest Service administrative costs seem significantly underestimated. Let’s do the math: The Forest Service’s estimate of administrative costs necessary to plan the sale of the maximum harvest volumes for the first 15 years would be \$4.8 million per year in present dollars, based on multiplying \$104/MBF by 46,000 MBF. However, the primary budget line item for the Forest Service’s preparation of timber sales in the Tongass – “Forest Products” – averaged \$11.8 million for years 2008-2014, when average timber sales were 41.7 MMBF yearly.

The Forest Service is therefore projecting, in the proposed TLMP amendment, that it will increase timber sales to 46 MMBF a year on less than half of its normal budget.

Estimating actual future timber losses is difficult. But it's clear those losses will greatly exceed the already-considerable losses currently projected using revenue assumptions four times greater than normal and administrative costs less than half of normal. The Forest needs to stop with the rosy projections. The agency would better serve taxpayers by figuring out how to actually generate a fair return on federal timber. Until then, the size of future timber harvests needs to be cut down to size.

Tags: **FEDERAL LANDS, RESOURCE ROYALTIES, TIMBER**

EXHIBIT 7

Letter of R. Alexander, Taxpayers for Common Sense to Alaska Roadless Rule (Oct. 25, 2018)

October 15, 2018



Alaska Roadless Rule
USDA Forest Service
Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, Alaska 99802-1628

Dear Forest Service Rulemaking Team,

Taxpayers for Common Sense (TCS), a national nonpartisan budget watchdog organization, submits this letter as our official public comment on the Notice of Intent published by the U.S. Forest Service to prepare an Environmental Impact Statement regarding the management of inventoried roadless areas in the Tongass National Forest. Our organization has tracked government waste issues for nearly 25 years and we are concerned the proposal to exempt the Tongass National Forest from the 2001 Roadless Rule will cost American taxpayers tens of millions of dollars in increased timber subsidies. As the Forest Service undertakes an analysis of the proposal, it is imperative that the agency fully examine and account for all potential costs, including the net fiscal effects of administering sales for timber harvest in roadless areas.

Background

For decades, the Forest Service has administered timber sales in the Tongass that have generated net losses for the agency, and thereby federal taxpayers. That is, the costs incurred by the Forest Service to administer its timber sales program have surpassed receipts generated from the resulting sales. In 2016, the [Government Accountability Office](#) (GAO) reported that from fiscal year (FY) 2005 to 2014, the Forest Service expended an average of \$12.5 million annually for timber-related activities and received only \$1.1 million on average in receipts from timber harvest, resulting in an average net loss of roughly \$11.4 million.

The receipts data GAO used to make its calculation were accurate, but the expenses of the Forest Service were understated because the GAO considered neither certain trust fund outlays nor the costs of roadbuilding to implement timber sales.

Including outlays from trust funds providing for specific types of timber sales and reforestation after timber harvest, the Forest Service's annual expenses on timber-related activities averaged nearly \$14 million over the 10-year period, resulting in an average annual net loss of \$12.9 million. Extending the same methodology, the Forest Service lost \$13.9 million on average over the 19-year period from FY 1999 to 2017 administering timber sales.

However, these annual loss averages do not take into account the millions of dollars the Forest Service spends annually to build and maintain roads in the Tongass National Forest, of which

the “vast majority ... were developed for timber harvest purposes.”¹ Despite their primary intended use – to facilitate timber harvest – the costs of building and maintaining these National Forest System roads are fully paid for by the Forest Service. **If all roadbuilding costs are taken into account, the Forest Service has lost \$25.2 million on average annually over the last 19 years providing for timber sales in the Tongass National Forest.**

Average Annual Receipts, Expenses, and Losses from Tongass Timber Sales

(\$ in millions)

Calculation Source	Time Period (FY)	Costs Considered			Average Receipts	Average Costs	Average Loss
		Timber Sale Admin.	Trust Funds	Road-building			
GAO - 2016 Report	2005 - 2014	X			\$1.1	\$12.5	-\$11.4
Reported USFS receipts and expenses	2005 - 2014	X	X		\$1.1	\$14.0	-\$12.9
Reported USFS receipts and expenses	1999 - 2017	X	X		\$1.3	\$15.2	-\$13.9
Reported USFS receipts and expenses	1999 - 2017	X	X	X	\$1.3	\$26.6	-\$25.2

The large and consistent losses resulting from previous timber sales in the Tongass indicate that under current practice, the Forest Service will continue losing money by selling timber in currently roaded areas. Selling timber in roadless areas would require the Forest Service to spend more constructing roads for harvester access. As a result, we project that Forest Service losses from timber management would increase substantially.

In addition, new timber sales in roadless areas would increase the mileage of roads that must be maintained, again at taxpayer cost. The Forest Service cannot adequately maintain the existing 370,000 miles of roads in the National Forest System. The deferred maintenance backlog for these roads is currently around \$3 billion. Adding more miles to the road system in National Forests without devoting funds to pay for their maintenance will only increase that backlog. Any assessment of allowing timber harvest in roadless areas, which would require significant new road construction, must account for the maintenance costs associated with new roads.

¹ U.S. Forest Service, “Final Environmental Impact Statement: Tongass Land and Resource Management Plan.” June 2016. Appendix C, pg. C-4

The Current Rulemaking

In preparing the environmental impact statement on potential revisions to management of Tongass roadless areas, the Forest Service should evaluate a full range of alternatives that address the fiscal impacts of management policies. Those alternatives should include:

- An alternative that does not allow any timber sale that will result in a net loss to the Treasury, taking into account direct costs and losses from timber sale and reforestation trust funds.
- An alternative that does not allow any timber sale that will result in a net loss to the Treasury, taking into account direct costs and losses from timber sale and reforestation trust funds, plus the cost of necessary road building.
- An alternative that does not allow any timber sale that will require the construction of new roads for which the Forest Service does not have a reasonable likelihood of funding for maintenance.

In addition, in evaluating the alternatives in the environmental impact statement, the Forest Service should consider the full range of fiscal impacts, including:

- Net losses from timber sales;
- The cost to the Treasury from associated road-building;
- Future road maintenance costs; and
- Liabilities associated with degraded road conditions when Forest Service road maintenance appropriations do not meet the level necessary to adequately maintain road miles created as a result of new timber sales.

A complete or partial exemption to the roadless rule in the Tongass National Forest would substantially increase taxpayer losses by increasing expenses for building roads to implement timber sales in roadless areas. Which is why, when analyzing this proposal, the costs of resulting roadbuilding need to be fully understood. This imperative is not ours, but simply what's demanded by the Executive Orders guiding federal agency rulemaking.

Within two weeks of assuming office, President Trump signed Executive Order 13771, "Reducing Regulation and Controlling Regulatory Costs," which emphasized the need for federal agencies to carefully consider the costs of regulations they promulgate. To guide such consideration, previous executive orders that are still in effect outline how agencies should execute cost-benefit analyses for rulemakings. Executive Order 13563, which reaffirms the long-standing principles established in Executive 12866 in 1993, states that, "each agency is directed to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible."

In the current rulemaking considering exemptions to the 2001 Roadless Rule for Alaska, such future costs include timber sale administration costs, roadbuilding costs, and road maintenance

costs, among others. The Forest Service is therefore required not simply to take these costs into account, but to quantify each “as accurately as possible.”

Conclusion

Taxpayers for Common Sense strongly urges the Forest Service to examine how exempting Alaska from the 2001 Roadless Rule in whole or in part, and expanding timber sales into inventoried roadless areas as a result, would affect the fiscal impact of these sales to taxpayers.

EXHIBIT 8

Letter of D. Jenkins, Conservatives for Responsible Stewardship to Secretary Perdue, USDA
(Oct. 15, 2018)



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CONSERVATIVES FOR RESPONSIBLE STEWARDSHIP

conservativestewards.org

October 15, 2018

The Honorable Sonny Perdue
Secretary
U.S. Department of Agriculture
1400 Independence Ave., S.E.
Washington, D.C. 20250

Dear Secretary Perdue:

On behalf of Conservatives for Responsible Stewardship (CRS), a national grassroots organization of stewardship-minded conservatives, and its more than 14,000 members, I write in opposition to any weakening or exceptions to the Roadless Area Conservation Rule (Roadless Rule) in Alaska, including with regard to Tongass National Forest.

By protecting high value conservation lands, the Roadless Rule in Tongass National Forest provides numerous benefits including clean water, unmatched recreational and tourism opportunities, and wildlife habitat that supports hunting, commercial and recreational fishing, as well as many threatened, endangered, and sensitive species.

The Roadless Rule is particularly important for the Tongass, given the special vulnerability of the species and natural processes that exist in this naturally fragmented archipelago of a thousand islands.

Alaska's Tongass National Forest contains some of the largest remaining tracts of temperate old-growth rainforest in the world, helping make it the country's single most important national forest for carbon sequestration and free climate change mitigation. Given that parts of Alaska are warming at roughly twice the rate of the rest of the planet, maintaining an intact Tongass ecosystem, continued protection for roadless areas is as important for Alaska as it is the rest of our nation.

The current Roadless Rule in the Tongass protects taxpayers from uneconomical and heavily subsidized logging activity, while also promoting the growth of Southeast Alaska's two largest industries – fisheries and tourism.

Changes to the rule would increase road construction and logging on the Tongass, placing a greater burden on taxpayers and on Alaska's economy. It would also unwisely perpetuate the Forest Service's practice of subsidizing an uneconomical timber industry, instead of investing in the actual drivers of Southeast Alaska's economy.

Road building and maintenance is a tremendous taxpayer expense, particularly in Southeast Alaska. Road construction costs on the Tongass averages \$185,000 per mile and can be as high as \$322,378 per mile on steep slopes. Maintenance and repair costs average \$50,000 per mile.¹ These costs are largely absorbed by the Forest Service; road subsidies for timber exceeded \$140 million between 1998-2002, and most of these roads were used only by timber vehicles for timber extraction.² Designation of roadless areas keep these costs down.

Further, any new road construction costs would be added to a system already in deficit. The Forest Service has an estimated maintenance backlog of \$3.2 billion.³ The Tongass alone had over \$14 million in deferred road maintenance costs in 2000 and over \$700 million in identified needed capital improvements.⁴ Continuing to burden this system will either defer more critical infrastructure maintenance or will force additional funding allocations from Congress. We strongly oppose the use of taxpayer money to subsidize a program that does not net value back to the taxpayers.

Timber is the primary purpose for road construction in National Forests. Gains from timber sales not only fail to make up for the costs of road construction and maintenance, they fail make up for their planning and implementation costs. This results in huge losses to the federal government.

For example, the Tongass' five-year average net revenue/loss for timber sales between 2009-2013 was \$20,528,811. During this time, the net loss to the taxpayer ranged from \$489 to \$1,132 per thousand board feet of timber, with a total cost of over \$100 million.⁵ Further, Tongass' amended Land

¹ Alexander, S. J., Dr., Henderson, E. B., & Coleman, R. (2010). Economic Analysis of Southeast Alaska: Envisioning a Sustainable Economy with Thriving Communities [Abstract]. *Forest Service Alaska Region*, p. 1-98.

² Road Wrecked, Taxpayers for Common Sense, p. 3.

³ USDA Forest Service. National Forest System Statistics FY 2016. FS 905(16) Brochure. March 2017.

⁴ Tongass National Forest, Forest-Level Roads Analysis, 2003, p. 76.

⁵ Headwaters Economics Tongass Report, p. 21-23.

Management Plan 2016 predicts those losses will grow.⁶ These large subsidies to the timber industry do not provide any significant benefits to warrant this great expenditure.

The timber industry has been in decline over the past several decades. In 2011, there were 457 people employed in forestry and sawmill jobs in all of Alaska, down 90% from 4,600 jobs in 1990. In 2013, timber-related employment amounted to less than 1% of Southeast Alaska employment.⁷

Timber advocates argue the reasons for this decline are increased regulation and lack of roads to access valuable old growth stands. In reality, the closure of Southeast Alaska pulp mills was largely due to declining Japanese pulp markets.⁸ Further, Alaska's high timber production costs coupled with its long distance from markets make it impossible to establish a sustainable timber industry.⁹

Even on sales that are predominantly old growth, timber operations fail to breakeven.¹⁰ The Big Thorne timber sale, the largest proposed timber sale on the Tongass, is made of predominately old growth. This sale has an estimated value of \$6 million, but preparation and administrative costs of the sale are estimated at \$57 million, this is a 10:1 expense-revenue loss ratio, and a loss to the U.S. Treasury of \$50 million.¹¹ The Big Thorne timber sale will proceed regardless of this absurd expense-revenue ratio, as it was recently upheld by the Ninth Circuit court.¹² We urge you to minimize any further fleecing of taxpayers from such boondoggles.

Rolling back common-sense protections to encourage such deficit-ballooning waste is not conservative, it is fiscally irresponsible and reckless.

Though the timber industry in Southeast Alaska has seen decline, two other industries in the region, tourism and fisheries, are thriving. In 2013, the southeast Alaska visitor industry employed 6,707 people (+332 jobs, 5.2% change from 2012 to 2013) and accounted for 15% of total regional employment and in 2013. The Seafood industry in Southeast Alaska employed 4,252 people (+148 jobs, 3.6% change from 2012 to 2013) and accounted for 9% of total regional employment. Together, they represented

⁶ Cutting the Tongass Timber Plan Down to Size, Taxpayers for Common Sense, Sept. 27, 2016, p. 3.

⁷ The Tongass National Forest and the Transition Framework, Headwaters Economics, 2014, p. 16.

⁸ *Id.* at p. 17-18.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.* at p. 5, 27.

¹² State of Alaska Press Release, May 23, 2017, retrieved from:

<<http://www.law.state.ak.us/press/releases/2017/052317-BigThorne.html>>.

24% of employment, compared to timber industry's <1%.¹³ More recent estimates the visitor industry contributes nearly \$4 billion to the economy and provides some 7,752 jobs in Southeast Alaska.¹⁴ An increase in road construction and harvesting of old growth timber would negatively impact the growth of both these industries.

Road construction degrades the commercial viability of Southeast Alaska fisheries in various ways. First, road construction significantly increases the presence of fine-sediment in streams. According to the Forest Service's own studies, juvenile salmonid densities decline as the presence of this fine-sediment increases. Also, roads can be barriers to fish migration, increase water temperatures, and alter streamflow regimes – and these effects of these changes are clear: increased road densities directly correlate to decrease likelihood of fish spawning and rearing.¹⁵

Alaska's tourism industry depends on its continued wildness and thriving wildlife, qualities that make it unique to the rest of the world and therefore attract global visitors. Road construction for timber and excessive logging directly reduces these qualities, threatening the nearly \$4 billion to the economy and some 7,752 jobs.¹⁶ Right now Alaska is well suited for the tourism market, unlike the timber market. Once these qualities are gone, however, Alaska could lose its ability to attract the level of visitors it receives now.

These industries are growing despite receiving smaller shares of Tongass National Forest budget and staffing resources. The 5-year average share of Tongass National Forest budget from 2009-2013 showed a 37% allocation to timber, compared to 15% to recreation, 7% to wildlife & fisheries, and 6% to watershed protection. During this time, annual timber expenditures ranged from \$19 million to \$26 million, of the Tongass' \$60 million annual budget, annual recreation expenditures ranged from \$8 million to \$9 million, wildlife & fisheries averaged \$4 million, and watershed ranged from \$3 million to \$5 million during that same time period.¹⁷

Timber budget allocation is continually greater than recreation, wildlife & fisheries, and watershed protection combined. This focus on timber, at the

¹³ Headwaters Economics, 2014, p. 4, 17.

¹⁴ *Keeping the Tongass wild and roadless*, Dominick DellaSala, John Schoen, & John Talberth, Juneau Empire, Aug. 17, 2018. < <https://www.juneauempire.com/opinion/keep-the-tongass-wild-and-roadless/>>

¹⁵ *Forest Roads: A Synthesis of Scientific Information*, May 2001, USDA Forest Service, retrieved from: <<https://www.fs.fed.us/pnw/pubs/gtr509.pdf>> p. 25.

¹⁶ *Keeping the Tongass wild and roadless*, 2018.

¹⁷ Headwaters Economics, 2014, p. 12.

expense to recreation and fisheries, creates a huge opportunity cost. If Forest Service resources were directed towards these industries instead, or at least demonstrated a more balanced allocation of funds, the benefit to Southeast Alaska's economy could be enormous.

We urge you not to further burden the government with needless infrastructure costs that hinder, instead of support local economies. The Forest Service's relentless focus on timber, to the detriment of more prevailing, sustainable industries comes at great cost to taxpayers and harm to the communities of Southeast Alaska. Instead, we ask that you implement fiscally responsible management directives. Keeping the Roadless Rule as it is will safeguard the government from incurring needless debt, will benefit local economies, and will help align the Tongass' management direction with the realities of Southeast Alaska's commercial trends.

While speaking of America's great forests and other natural wonders, President Reagan wisely pointed out, *"This is our patrimony. This is what we leave to our children. And our great moral responsibility is to leave it to them either as we found it or better than we found it."*

Thank you for considering our appeal for fiscal sanity and our strong opposition to any changes to the Roadless Rule.

Sincerely,

A handwritten signature in blue ink that reads "David Jenkins". The signature is written in a cursive, flowing style with a large initial "D" and a long, sweeping underline.

David Jenkins
President

EXHIBIT 9

U.S. Forest Service, *Tongass National Forest Plan Amendment, Final Environmental Impact Statement* (June 2016) (excerpts)



United States Department of Agriculture

Tongass Land and Resource Management Plan Final Environmental Impact Statement Plan Amendment



Forest Service
Alaska Region

Tongass National Forest

R10-MB-769e,f

June 2016

Tongass Land and Resource Management Plan Amendment

Final Environmental Impact Statement

June 2016

Lead Agency: USDA Forest Service

Cooperating Agency: US Fish and Wildlife Service

Responsible Official: M. Earl Stewart, Forest Supervisor
USDA Forest Service, Alaska Region,
Tongass National Forest

For Further Information: Visit the Forest Web site at: www.fs.fed.us/r10/tongass
or Contact:
Susan Howle
Project Team Leader
648 Mission Street
Ketchikan, AK 99901
(907) 228-6340

Abstract

Secretary's Memorandum 1044-009, Addressing Sustainable Forestry in Southeast Alaska (issued July 2, 2013), and the 5-Year Forest Plan Review (completed in September 2013) indicated that conditions on the land and demands of the public require the Tongass to modify the 2008 Forest Plan. In the Memorandum, the Secretary of Agriculture, Thomas Vilsack, asked the Forest Service to "Strongly consider whether to pursue an amendment to the Tongass Forest Plan. Such an amendment would evaluate which lands will be available for timber harvest, especially young growth timber stands, which lands should be excluded, and additional opportunities to promote and speed transition to young growth management..." and to "...continue to seek input from and work with stakeholders in the region towards this transition." The Tongass Advisory Committee (TAC) was established under the Federal Advisory Committee Act and was approved by the Secretary to "...provide advice to the Forest Service on how to expedite the transition to young growth management." The 5-Year Forest Plan Review also highlighted a need to make the development of renewable energy resources more permissible.

This Final Environmental Impact Statement (FEIS) responds to the Secretary's Memo and the 5-Year Forest Plan Review by analyzing five alternatives for amending the Plan, including the No-Action alternative. A separate document, called the Land and Resource Management Plan (Forest Plan), has been published with this FEIS to represent the Forest Plan under the preferred alternative (Alternative 5). Alternative 5 is based on the Tongass Advisory Committee's underlying principles, general approach, and recommendations. Appendix F displays a side-by-side comparison of the alternatives to show how they differ from the preferred alternative. Four key issues are identified: 1) transitioning to young-growth-based timber management in 10 to 15 years in an ecologically, socially, and economically sustainable manner; 2) promoting the development of renewable energy projects where it is compatible with National Forest purposes; 3) the effects of potential timber harvest activities in roadless areas; and 4) the effects of forest management on wildlife habitat and the Conservation Strategy. The five alternatives provide a range of options for addressing the issues. Direct, indirect, and cumulative effects of the alternatives are compared and disclosed in Chapters 2 and 3, based on inventory data and modeling.

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region that has been measured, with the exception of the Greenland and Antarctic ice sheets (Wolken et al. 2011; Chapin et al. 2014). The coastal-temperate forests in Southeast Alaska comprise approximately 10 percent of Alaska's total forests and 19 percent of the world's coastal-temperate forests (Wolken et al. 2011). Although these coastal forest types are confined to a relatively small footprint globally (covering less than 0.5 percent of the earth's total forested area), they play a critical role in the delivery of dissolved organic carbon to coastal oceans (Wolken et al. 2011). In addition, these forests currently sequester and store large quantities of carbon (DellaSala 2014; DellaSala 2016; Law 2014). As a result, Southeast Alaska plays an important role in the global climate and carbon cycle.

Climate Models

There are several models that examine the potential future climate conditions and/or trends in Alaska's climate. The most reliable models suggest warmer, wetter conditions for Alaska. They generally state that rainfall may increase and snowfall may decrease at lower elevations in Southeast Alaska over the next 50 to 100 years (Bonsal and Prowse 2006; SNAP 2013). The Scenarios Network for Alaska & Arctic Planning (SNAP) recently developed a model for climate projections in Southeast Alaska (SNAP 2013 as cited in EcoAdapt 2014). SNAP's projections suggest that mean winter temperatures in Southeast Alaska may increase by an additional 1.8 to 6.3°F (or 1 to 3.5 degrees Celsius) by the year 2050 (SNAP 2013 as cited in EcoAdapt 2014). Their model also suggests that precipitation levels may increase in all seasons, with winter precipitation potentially increasing by 5 to 15 percent by 2050. The effects that this would have on local conditions would vary; with the increased precipitation potentially resulting in increased snow occurring at higher elevations where temperatures remain below freezing. Lower elevations could experience a shift from snow to rain and a decrease in snowpack as the lower elevations warm and the number of days with below freezing temperatures decrease (SNAP 2013 as cited in EcoAdapt 2014).

Carbon Sequestration

Carbon, primarily in the form of carbon dioxide, is one of the major greenhouse gases being released into the atmosphere through both natural and anthropogenic (i.e., human-driven) influences (McPherson and Simpson 1999; IPCC 2014). This atmospheric carbon, as well as other gases (e.g., methane, nitrous oxide, and water molecules), traps the sun's heat, thereby creating a natural "greenhouse effect" that makes life on earth possible (McPherson and Simpson 1999). The amount of carbon dioxide in the atmosphere is regulated by complex interactions between the atmosphere, terrestrial environment, marine environment, and geologic processes. Recent changes to the global carbon cycle, driven in large part by human activities, have been cited as one of the leading causes for global climate change and the general warming trend that has been detected (IPCC 2014).

The Tongass National Forest stores more forest carbon than any other national forest in the United States (Barrett 2014). As such, a critical ecosystem service sustained by this forest is carbon sequestration (i.e., the removal of carbon dioxide from the atmosphere and keeping that carbon inactive by storing it in live or dead biomass as well as organic soil matter). This makes the Tongass National Forest a critical component in the global carbon cycle (DellaSala 2014; DellaSala 2016; Law 2014).

3 Environment and Effects

Generally, the capacity of a forest system to sequester and store carbon depends on the location, age, and species composition of the forest (Birdsey et al. 1993; McKinley et al. 2011). In some forests found in warmer climates, the accumulation of carbon can decrease overtime as the carbon stored in soils and dead vegetative materials are released through the process of organic decay. However, the cool conditions on the Tongass National Forest slow down the rate of decomposition, which includes biomass breakdown/decay and carbon release. The dead or decaying plant matter is incorporated into the system's soil profile within the Tongass National Forest, where it accumulates and resides in various stages of decomposition for prolonged periods. As a result, mature forests within the Tongass National Forest generally store considerable amounts of carbon on the forest floor and in the soil profile. Smith et al. (2004) estimated that approximately 70 tons per acre of carbon are stored on the forest floor in the hemlock-Sitka spruce ecosystems found on the Tongass National Forest. Furthermore, some studies have indicated that trees can continue to accumulate carbon at increasing rates as they mature, thereby resulting in large amounts of carbon stored annually within mature trees (Stephenson et al. 2014). As a result, mature forests on the Tongass National Forest likely store considerably more carbon compared to younger forests in this area (within the individual trees themselves as well as within the organic soil layer found in mature forests).

Although the organic soils of the Tongass National Forest currently store considerable amounts of carbon, D'Amore and Lynn (2002) note that numerous studies have shown that carbon stored in soils may be released to the atmosphere in the form of carbon dioxide or methane, as the climate warms. Davidson and Janssens (2006) noted that many factors can affect the sensitivity of soil decomposition rates to increased temperatures (e.g., the relative mix of organic to mineral substrates, soil moisture levels, as well as other biotic and abiotic conditions) and that not all organic soil types would be equally sensitive to increased temperature; however, D'Amore has indicated that the organic layers in the soil profile of mineral soils as well as organic soils in general on the Tongass National Forest would likely experience increased decomposition rates if average temperatures were to increase (D'Amore et al. 2015; D'Amore 2016). As a result, the projected increases in average temperatures as a result of climate change could result in the release of portions of the carbon currently stored in the Tongass National Forest's soil layers. In addition, the clearing of forested areas during past and ongoing harvesting activities can increase this effect, by increasing the amount of solar energy that is allowed to reach the ground while the forest regenerates following a harvest. The projected increase in average temperatures and longer growing season could also increase the growth rates of fungi in temperate-forests (a taxa that aids in the decomposition of forest material) which would also increase the rate of carbon released to the atmosphere (e.g., currently stem-decay fungi consume approximately 31 percent of the volume of live trees; Wolken et al. 2011). Furthermore, dissolved carbon may be transported to streams and the ocean due to the increased precipitation predicted to occur over the next 50 to 100 years. Increased stream temperatures can also result in an increased rate of carbon released from aquatic systems.

Previous studies have been conducted to determine how much carbon is stored on the Tongass National Forest. Barrett (2014) examined the storage and flux of carbon in live trees, snags, and logs in the Tongass National Forest.³ On the Tongass National Forest, growth and recruitment of live trees removed an estimated 760 pounds of carbon per acre per year from the atmosphere, but net change in live carbon mass was not significantly different from zero, with mortality and harvest estimated at 670 pounds of carbon per acre per year (Barrett 2014). Including its wilderness areas, aboveground live and snag carbon on the Tongass National Forest is estimated to be 601 (\pm 21) million tons on an estimated 9.7 million acres of forest.⁴ Some 233 million tons of this carbon are on lands that are legally excluded from timber harvesting, such as formally designated wilderness areas (Barrett 2014). Total carbon densities on unmanaged forests were estimated as 72 tons per acre, which comprised 7 percent logs, 13 percent snags, and 80 percent live trees. Carbon densities on managed forests were estimated as 45 tons per acre, which comprised 38 percent logs, 8 percent snags, and 54 percent live trees (Barrett 2014). On a per-acre basis, the Western hemlock and Sitka spruce forest types were found to have the highest amount of carbon (Barrett 2014). Using the per-acre values by forest types, and extrapolating to include wilderness areas, provides a rough estimate of about 650 million tons in aboveground tree carbon on the Tongass National Forest, equivalent to 2.4 billion tons of carbon dioxide (CO₂; Barrett 2014). To put this in perspective, an estimated 83,500,000 billion metric tons of carbon are stored worldwide, primarily in the oceans and marine sediment, based on United Nations estimates. D'Amore and Edwards (no date) estimated that the carbon stored in the Tongass National Forest makes up about 8 percent of the carbon currently stored in the forests of the United States. Leighty et al. (2006) estimate that between 6.4 and 17.2 million metric tons (0.2 to 0.6 percent) of stored carbon has been lost on the Tongass National Forest since timber harvest began in the early part of the 20th century. For comparison, approximately 2,039 million metric tons of carbon was released to produce electric power in the United States in 2012 (U.S. Energy Information Administration [EIA] 2013). The total U.S. carbon emissions in 2012 (which includes the electric sector discussed above, as well as other sections such as industry, transportation, agriculture, and commercial/residential) were approximately 6,526 million metric tons (EPA 2014b).

Interest in enhancing ecosystem carbon sequestration and storage has intensified recently, as concerns about how to mitigate climate change have increased. The question of how active management of ecosystems may contribute to, or detract from, this mitigation effort is being explored, with varying results. A few studies have shown that the management of some forests with certain parameters being met (such as the addition of fertilizer) may result in heightened capacity for carbon sequestration and storage (Schroeder 1991; Binkley et al. 1997). A study in the eastern United States found that thinning a 50-year-old stand from below (i.e., removing the smallest trees) resulted in more stored carbon after 25 years than resulted from thinning stands from the middle or from above (Hoover and Stout 2007). A study conducted in the Pacific Northwest (Perez-Garcia et al. 2005) concluded that the use of wood in permanent structures resulted in *“significant atmospheric carbon reductions by displacing more fossil fuel-intensive products in housing construction.”* However,

³ A number of carbon pools and fluxes were not included in Barrett's report, including (1) carbon in non-forested lands, which includes alpine environments, wetlands, grasslands, and shrublands; (2) below-ground carbon, including roots, soils, and organic materials; (3) carbon in non-tree vegetation and litter within forest; (4) carbon in a few pools currently not measured by FIA, which includes stumps below 4.5 feet and dead saplings; and (5) carbon in forest lands in inaccessible wilderness.

⁴ Note that this does not represent a complete accounting of stored carbon, as it does not take into consideration carbon stored in the soil, nor does it take into consideration the stored carbon present in the final products of the harvested timber.

3 Environment and Effects

Harmon et al. (1990) noted that even when timber is used for permanent construction purposes, 35 to 45 percent of the wood's biomass is lost to sawdust or scraps created during the processing; therefore, the final amount of carbon ultimately stored in permanent construction is much less than was originally harvested. Other studies, particularly two with application to Southeast Alaskan ecosystems (Harmon et al. 1990; Leighty et al. 2006), indicate that the Tongass National Forest would generate a net release of carbon to the atmosphere if active harvest of old growth is pursued (in other words, harvesting old growth instead of young growth could reduce the carbon sequestering ability of the forest).

As discussed above, timber harvesting and active forest management can affect a forest's ability to store and ultimately sequester carbon. DellaSala (2014, 2016) suggested that a logged forest would emit substantial amounts of carbon for at least the first 15 years following harvest, and that a young regenerating forest would remain a net carbon emitter for up to 50 years. Janisch and Harmon (2002) suggested that it can take more than 200 years following a timber harvest for forests to reach equilibrium (i.e., the point where carbon released from the initial harvest as well as ongoing decay of organic materials equals the amount of carbon that is absorbed into the system). The net effect of a timber harvest and active forest management action (i.e., amount of carbon released versus the amount stored) would depend on how the harvested timber was used (e.g., if it was used for durable timber products, paper, pulp, or biomass fuels⁵), what substitute materials are available for construction purposes (i.e., non-wood materials), the amount of carbon emitted during harvesting activities, the amount of carbon emitted via decomposition of on-site wood and organic soil matter losses, and the influence of the harvested wood on timber markets elsewhere (McKinley et al. 2011; Jonsson et al. 2012). If the emissions are less than the carbon stored in utilized wood, and if the system can rapidly replace losses from decomposition through tree growth, the activity may ultimately yield a net gain of stored carbon; otherwise, the activity would result in a net loss of stored carbon (which would have an adverse effect on carbon sequestering and potentially climate change rate). Although the amount of carbon that has been released on the Tongass National Forest since harvesting began has not been tracked or monitored, based on the understanding of carbon dynamics outlined in Barrett (2014), we can infer that the past harvests and management of the Forest has likely resulted in a net release of carbon to the atmosphere due in part to the practice of harvesting of old-growth timber on the Forest.

Air Quality

The air quality of Southeast Alaska and the Tongass National Forest is generally good. The prevalent airflow from the Pacific Ocean, the relatively small amount of industrial development in Southeast Alaska, the lack of large population centers, the absence of slash burning following harvest, and environmental regulations all contribute to maintaining clean air. Forest activities have historically had little direct effect on air quality on the Tongass (USDA Forest Service 1997a). However, cruise ship emissions in certain locations and trans-Pacific pollutants such as persistent semi-volatile organic pollutants and greenhouse gases are a growing concern.

The State of Alaska Department of Environmental Conservation (ADEC) under the Clean Air Act, via Title 1 and Title 5 of the EPA approved State Implementation Plan regulates air emission from stationary sources. ADEC

⁵ If the harvested materials were all used for biomass fuels or other products that would be burned, this would result in a net release of substantial amounts of carbon to the environment (Holtmark 2012; DellaSala and Koopman 2015). However, the Tongass Forest Plan does not specify how the harvested timber would be used, and the Forest is not managed for biomass fuels.

EXHIBIT 10

M.C. Martin, *From rock to forest: Southeast's carbon sink*, Juneau Empire (Feb. 19, 2016)

From rock to forest: Southeast's carbon sink

ADVERTISEMENT

By MARY CATHARINE MARTIN

Friday, February 19, 2016 1:04am | NEIGHBORS

ALASKA OUTDOORS



Fens and bogs in the rainforest have deep accumulations of carbon.

To talk with local scientists about the Tongass National Forest is to become aware of how much lies literally beneath its surface.

It's a lot, and it could have big repercussions for its future. Researchers call carbon storage "carbon sequestration," and the Tongass is pretty good at it — temperate rainforests have the densest concentrations of carbon in the world.

A 2006 estimate found the Tongass has the carbon equivalent of 8 percent of the Lower 48's national forests' carbon reserves put together. Now, that appears to be an underestimate.

The Tongass, said U.S. Forest Service research soil scientist David D'Amore, has "definitely some of the highest (carbon stores) in the world" per unit area. "I hesitate to say 'the highest,' because there are some forests in Indonesia that are pretty high, but we are in the top five," he said.

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Mitigation of carbon emissions is "a key concept," internationally, said, "and of course this region plays a role in that, just because of the stock



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we have.”

Where is it,

and why is it here?

When people think of carbon, they think of trees. But that’s not even close to the whole picture.

“There’s a whole lot more carbon out there,” D’Amore said.

Estimates of carbon in soil, for example, have doubled since the 8 percent figure came out, he said.

“We’re probably increasing 2 to 4 percent total,” he said.

That would mean the Tongass would represent 10 to 12 percent of America’s stored carbon in national forests.

Soil carbon, though it represents two-thirds to three-fourths of the total stored carbon in the landscape, is hard to measure, D’Amore said. Imaging, for example, is blocked by rocks and roots. And then there’s the soil’s very depth.

“There are places where the peat is tens of meters thick. It’s basically building up since the last ice age,” said University of Alaska Southeast Assistant Professor of Forest Ecosystem Ecology Brian Buma. “You can dig down a couple meters and you’re back a thousand years.”

“Soils is where most of the carbon is stored, and it’s probably the least understood and least quantified tool,” D’Amore said.

The Tongass also contains quite a few different kinds of landscapes, which means there’s a lot of variance to figure out over quite a large area. Muskegs, forested wetlands, well-drained upland forest — the list goes on.

The water in the landscape also contains carbon, D’Amore pointed out — and up to 30 percent of the carbon cycling in a watershed can be dissolved. D’Amore compares the land to a giant sponge continuously being squeezed, releasing water and minerals into streams, rivers and the ocean. The process happens slowly in some areas, and very quickly in others — all of

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which affects the way things move through the system.

But why is the Tongass so good at storing carbon?

Basically, it's the weather.

"We're cold, and we're wet, and we don't decompose things as well," D'Amore said.

That also means the Tongass isn't nearly as susceptible to fire as most other national forests, another factor increasing its total carbon capacity.

The overall picture

As the Alaska Region Director of Wildlife and Fisheries for the Forest Service, and climate change advisor to the regional forester, Wayne Owen has been thinking about a different aspect of the equation.

Yes, he said, the Tongass has some big carbon stores (though, he added, it depends on where you're looking, as some areas are higher than others).

"But that sort of belies the bigger question — how do our activities impact that carbon balance?" Owen said.

How much, say, does making 40 million board feet of timber available affect the Tongass' carbon balance? How does it return? How can they help that process?

"It's a complicated thing that we think about a lot, often in the context of other objectives," Owen said.

The Forest Service also has what it calls FIA, or Forest Inventory and Analysis, which aims to get better estimates of carbon in its forests through annual estimates. (Of Alaska's forests, as of 2013, the Tongass had the highest carbon density and the Chugach had the lowest.)

Overall, the Tongass appears to be growing, Buma said. It's obvious that will happen in logged areas regrowing trees, but there's also growth in unmanaged areas, because retreating glaciers and isostatic rebound (land rising after being depressed by glaciers) make land available. (Isostatic rebound is much more pronounced in northern Southeast Alaska.)

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Outside management areas, in logged areas like Prince of Wales Island, the growth and decline due to avalanches, blowdown, and other events, for example, appear to be evenly matched, Buma said.

“In general,” Buma said, “the forest is growing quite a bit.”

He estimates that measurement, which takes into account only trees, not soil, at “not quite a teragram a year.” A teragram is around 1.1 million tons. To put that in perspective, an adult humpback whale weighs between 25 and 40 tons.

“That’s a pretty significant carbon sink for the country. It’s an appreciable component of our automotive emissions,” Buma said. “It could be a pretty significant part of a national carbon strategy if we want it to be.”

The business of carbon

Where that strategy comes into play is where things get economically interesting.

“Carbon markets in other parts of the world are coming to Alaska and looking at the great carbon stores we have here, and finding ways to protect those carbon stores as mitigation for carbon expenditures,” Owen said.

Federal lands can’t participate directly in carbon markets, but can contribute in other ways, he said.

At least one company in California, for example, is currently talking with the Forest Service about using lands in the Chugach to mitigate its carbon emissions. Some possibilities are buying it and giving it to the state, or keeping things like coal in the ground, or setting lands aside with an easement, or bringing non-federal lands into federal ownership. Other companies might sponsor renewable energy projects in rural communities as an offset. (Owen declined to elaborate on an ongoing talk in the Chugach but said it’s “a multi-million dollar deal” that “would be great for everybody.”)

He doesn’t know of anyone currently talking about setting aside land in the Tongass, but added that “there’s no reason why a company that would do that couldn’t purchase private land, or make a deal with a Native

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corporation like Sealaska to preserve some of their forest in perpetuity as carbon mitigation.”

Sealaska Corporation forester and manager of the corporation’s department of natural resources Brian Kleinhenz confirmed in an email that Sealaska is “looking at the forest carbon market,” but said he didn’t currently have anything more to share.

Future research

Logging leads to a lower amount of stored carbon; the trees contain them. The key question, said D’Amore, is “how long does it take them to get back to the stock that was there?”

It’s the same question for a slightly more complicated version of that equation. As all but one of the glaciers on the Juneau Icefield retreat, soil gradually accumulates on exposed rock, and plants and trees begin to grow.

“A key question is not as much if you’ll lose or if you’ll gain,” D’Amore said. “It’s how much.”

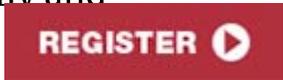
Another question: how will climate change affect the world’s forests, and their subsequent ability to absorb and store carbon?

“That’s where science plays a really important role — avoiding major pitfalls in terms of what we take for granted,” D’Amore said. “It’s important to get good numbers, especially in this region.”

D’Amore calls soil “the great unifier;” it’s also the least understood piece of the puzzle at the moment. Unity is what the study of carbon in the ecosystem needs, “from the bedrock right up through the trees,” with input from many different scientists, he said. He thinks they’re close to that.

“It’s fascinating and it’s infinitely complex,” Owen said. “You and I go out in the forest, and it’s lush and it’s full of life, and it’s huge — and that means something to us on a personal and maybe even a spiritual level — and you can quantify that (landscape) in terms of the carbon that’s stored there. The value of this resource on a global scale, not just personally and locally.”

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More information about the Forest Service's annual Forest Inventory and Analysis, essentially a "forest census" that also estimates total carbon in the forests (14.1 percent of the U.S.' CO2 emissions in 2012 were sequestered in forests and wood products, according to the site) is here:

<http://www.fia.fs.fed.us/forestcarbon/default.asp>.

Read a Forest Service report about carbon storage in Alaska here:

<http://www.fs.fed.us/climatechange/documents/AlaskaRegionCarbonAssessment.pdf>.



Dave D'Amore stands with exposed limestone rock, which shows signs of weathering, or erosion. Weathering rock consumes atmospheric carbon dioxide and stores the byproducts of the weathering reaction as organic carbon in the soil.



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Mark Nay with a soil respirometer, which measures the carbon dioxide flowing out of the soil into the atmosphere. The "breathing" of the earth is the combined respiratory loss from plants and micro-organisms.

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EXHIBIT 11

D. DellaSala, Geos Institute, *The Tongass Rainforest as Alaska's First Line of Climate Change Defense and Importance to the Paris Climate Change Agreements* (2016)

THE TONGASS RAINFOREST AS ALASKA'S FIRST LINE OF CLIMATE CHANGE DEFENSE AND IMPORTANCE TO THE PARIS CLIMATE CHANGE AGREEMENTS

Dominick A. DellaSala, Ph.D.
Chief Scientist, Geos Institute (Dominick@geosinstitute.org)

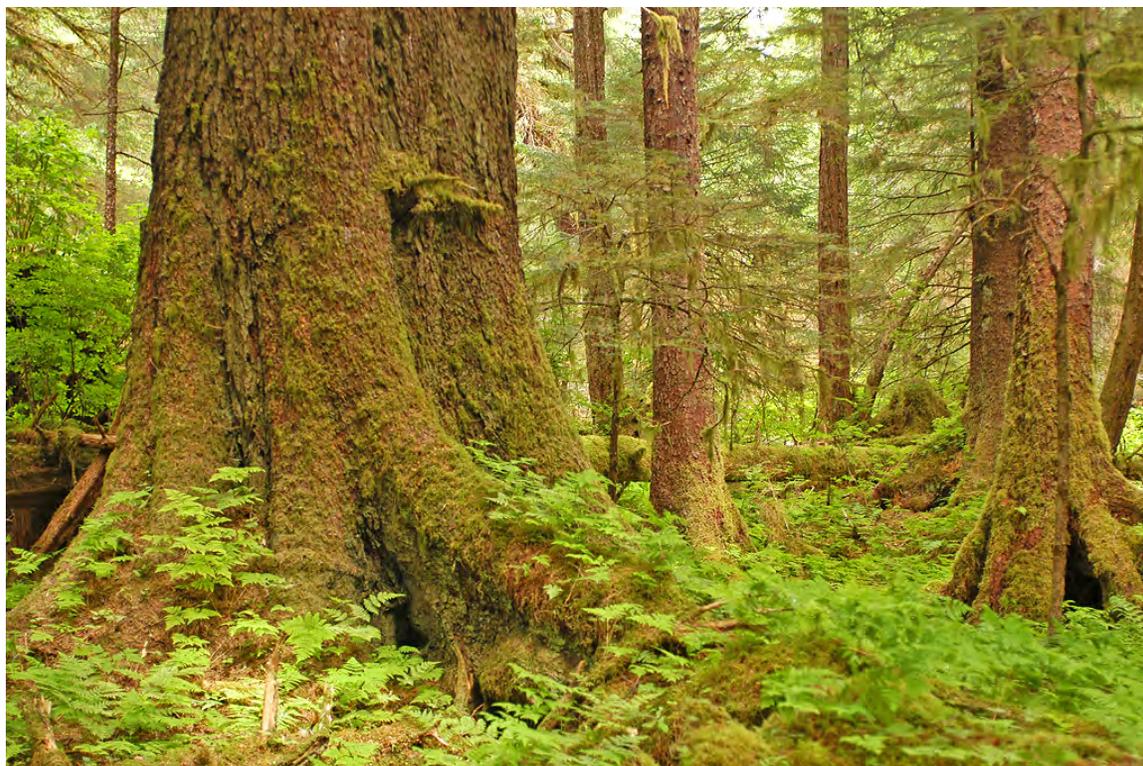


photo: J. Schoen

Executive Summary: the Tongass is a global champion in sequestering (absorbing) atmospheric carbon and storing it long-term in its ancient trees, productive soils, and dense rainforest foliage. Because it is one of the world's last relatively intact temperate rainforests, and it has a maritime climate, the Tongass is Alaska's first line of climate change defense and a climate refuge for its world-class salmon and wildlife populations. Logging of the Tongass rainforest produces greenhouse gas emissions that damages the region's contribution to a safe climate. Recognizing the critical need to reduce greenhouse gas emissions to keep global warming temperatures below a dangerous 2° C (~4° F) anticipated increase, a climate change agreement was reached in Paris by 195 members of the Conference of Parties (COP 21 also known as the 2015 Paris Climate Conference), including the USA. Articles of the agreement called for forests to be managed as a global "sink" for carbon. Therefore, protecting carbon sinks and reducing forestry emissions are pivotal steps to ensure a safe climate for Alaskans and for future generations.

Given the global importance of the Tongass as a carbon sink, we wanted to: (1) determine if the Tongass Draft Forest Plan Amendment (preferred alternative) was generally consistent with the Paris articles regarding managing forests as a carbon sink; (2) consistent with the Obama Administration's policies on climate change; and (3) whether the timeline for the proposed transition out of old-growth logging was consistent with efforts to end global deforestation under global forest and climate change agreements (e.g., COP 2, [NY Forest Declaration](#)). Thus, we estimated CO₂ emissions anticipated from logging old growth and young-growth forests as proposed by the Forest Service on the Tongass over the next 25 and 100 years and compared them to emissions under a conservation alternative designed to speed up the transition by relying mostly on soon-to-be-ready-for logging young growth as a replacement for old-growth logging.

Key Findings (for 100 years):

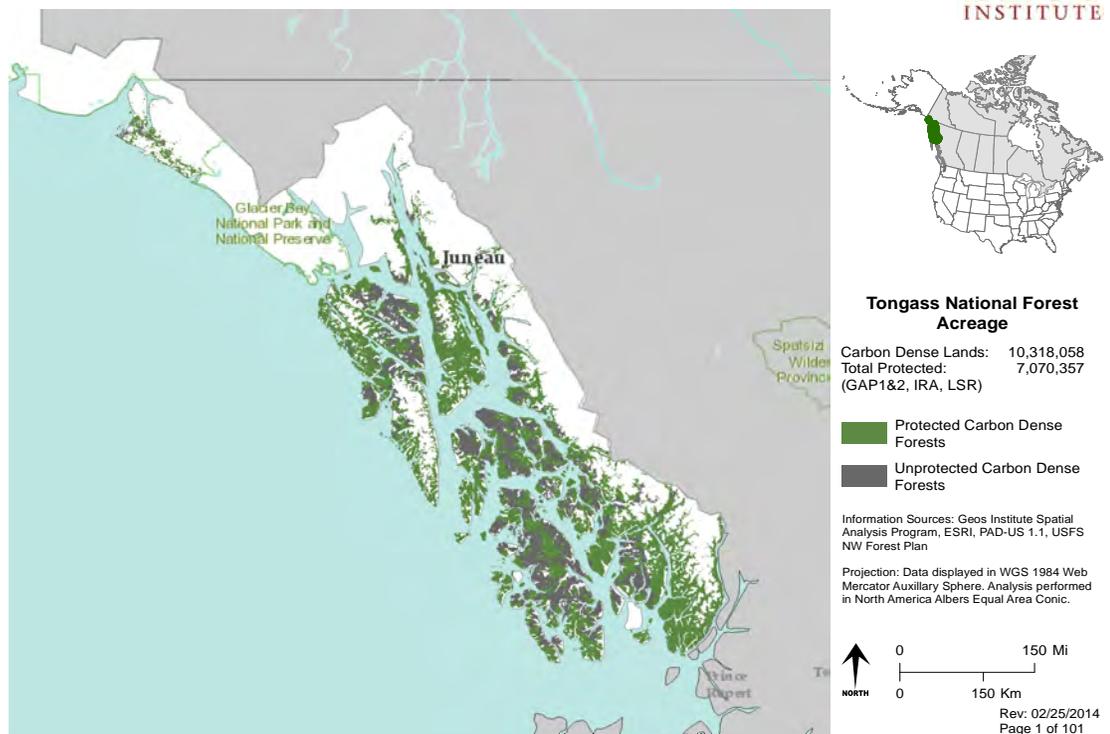
- The agencies' preferred alternative would log 43,167 acres of old growth (OG) and 261,850 acres of young growth (YG) resulting in the equivalent emissions of ~4 million vehicles annually on Alaska roads for the next 100 years. These

estimates account for carbon stored in wood products and capture of carbon by forest regrowth.

- Logging emissions are ~175 times greater than the “reference point” for project emissions recommended by the White House’s Council of Environmental Quality (CEQ). Emissions would result in a “social cost of carbon” conservatively estimated at >\$100 million annually in global warming damages by the end of the century. Losses are ~10 times the projected timber revenues on the Tongass.
- A conservation alternative proposed by conservation groups (but dismissed by the Forest Service) would rely predominately on 76,000 acres of low controversy YG to support the transition with much less OG (9,125 acres over 100 years) to support specialty products. This alternative yields the equivalent emissions of over ~400,000 vehicles annually for 100 years, 16 times above CEQ emissions reference, but a tenth of the emissions from Forest Service proposed logging.
- The Tongass preferred alternative is out-of-step with efforts by the global community to reduce emissions. The conservation alternative better complies with CEQ guidelines, the Paris climate agreement, and efforts to reduce climate damages from CO₂ pollution.
- President Obama showed great interest in Alaska’s already extensive climate impacts during his September 2015 Alaska visit to showcase his climate change initiatives prior to the Paris conference. Continued OG logging on the Tongass would further jeopardize Alaska’s climate and is out of step with the President’s climate change agenda.

NO OTHER NATIONAL FOREST STORES MORE CARBON THAN THE TONGASS (map shows concentration of Tongass forest-carbon stores)

Tongass National Forest



THE TONGASS IS A NATIONAL CARBON SINK

Photo: D. DellaSala



*“This is as good of a signpost as any when it comes to the impacts of climate change.”
President Obama during his September 2015 tour to Alaska glaciers.*

Alaska’s First Line of Climate Defense—Alaska is at the front lines of climate change, experiencing higher temperature increases than any other region in the nation along with increasing floods, coastal erosion and displacement of native villages, interior wildfires, die off of certain conifers, thawing of permafrost, and glacial melting (among other changes anticipated over the coming century)¹. If Alaska is on the front lines, then the Tongass is Alaska’s first line of climate defense.

At 16.8 million acres, the Tongass National Forest in southeast Alaska is the crown jewel of the national forest system. It is the nation’s largest national forest and one of the world’s last relatively intact temperate rainforests and thus it has global significance². Its world-class salmon runs are the backbone of a thriving subsistence, commercial fishery, and recreation-based economy³. The Tongass is by far the nation’s champion in storing carbon long-term⁴ and, in doing so, represents a unique opportunity for the Obama Administration to lead by example regarding its global commitments to the Paris climate change agreements designed to keep global warming below the dangerous 2° C (~4° F) presumed tipping point. During COP 21, the parties recognized the importance of forests as global “sinks” for storing greenhouse gases and called for steps by the global

¹Alaska Department of Environmental Conservation. 2010. Alaska’s climate change strategy: addressing impacts in Alaska. <http://www.climatechange.alaska.gov>

²DellaSala, D.A. 2011. Temperate and boreal rainforests of the world: ecology and conservation. Island Press: Washington, D.C.

³Crane, L.K., and J.R. Mehrkens. 2013. Indigenous and commercial uses of the natural resources of the North Pacific Rainforest with a focus on Southeast Alaska and Haida Gwaii. Pp. 89-126. In G.H. Orians & J.W. Schoen (eds.). North Pacific Temperate Rainforests. University of Washington Press, Seattle.

⁴Leighty, W.W. et al. 2006. Effects of management on carbon sequestration in forest biomass in southeast Alaska. *Ecosystems* 9:1051-1065

community to *conserve and enhance* forest sinks to help stabilize what may soon become run-away climate chaos.



Conference of the Parties (COP 21) Twenty-First session, Paris, December 12, 2015

“Recognizes the importance of adequate and predictable financial resources, including for results-based payments, as appropriate, for the implementation of policy approaches and positive incentives for reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks; as well as alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests.....

Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1(d), of the Convention, including forests.”

Photo: D. DellaSala



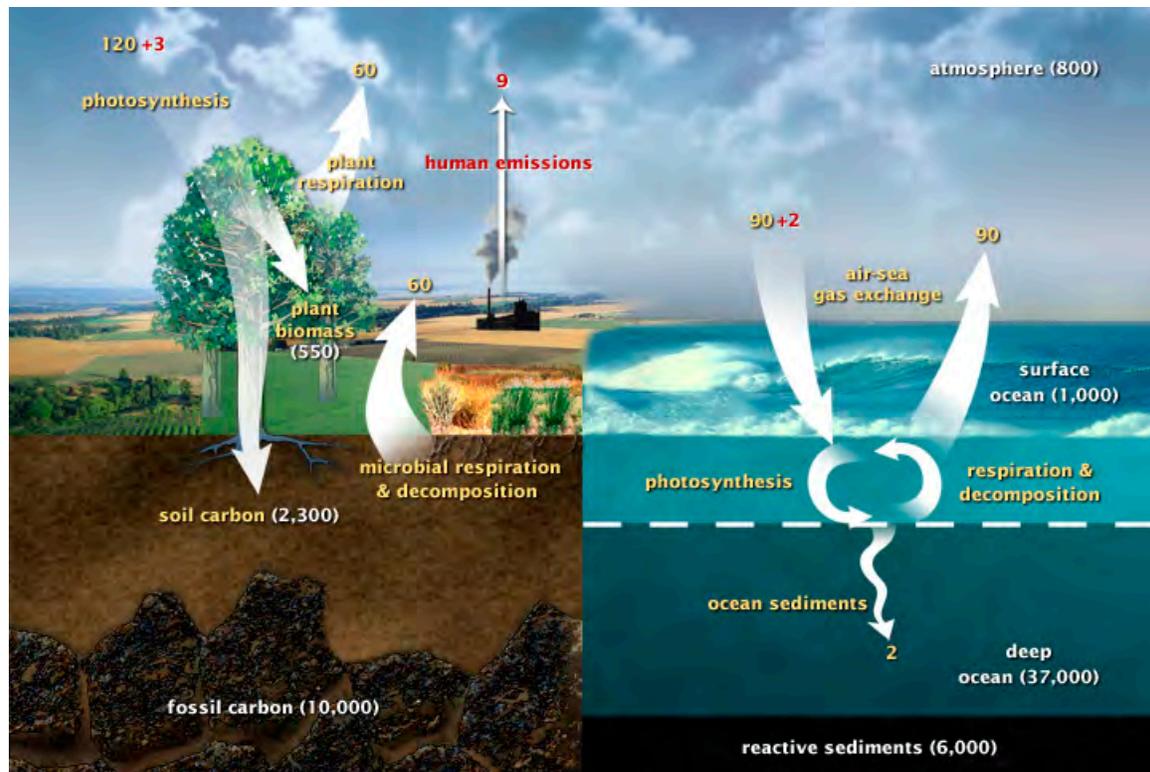
The Tongass is pivotal to the Obama Administration’s climate change commitments. The region’s forests not only store more carbon than any national forest, but also may function as a climate refuge (i.e., first line of defense) given maritime influences may moderate more extreme climate events anticipated for interior Alaska and temperate rainforests further south⁵. Relatively intact watersheds provide a refuge for old-growth dependent species (including many that are important to subsistence needs), and buffer salmon populations from cumulative effects of climate change and more extensive logging in the surroundings (non-federal lands)⁶.

Notably, prior estimates of net carbon flux from logging scenarios on the Tongass indicate that *only a no-logging scenario* maintains carbon stores through time⁴. Carbon

⁵DellaSala, D.A. et al. 2015. Climate change may trigger broad shifts in North America’s Pacific coastal rainforests. Online module – Earth Systems and Environmental Sciences – published by Science Direct

⁶For examples, see Watson, et al. 2013. Mapping vulnerability and conservation adaptation strategies under climate change. *Nature Climate Change* 3:989-994.

also has future economic value in terms of avoided costs from global warming pollution and development of carbon-offset markets. For instance, if carbon were stored long-term in old-growth forests instead of being released to the atmosphere by logging, the estimated annual economic value of carbon would be comparable to revenue generated from Tongass timber sales should carbon markets mature⁴. Moreover, the Interagency Working Group on Social Cost of Carbon estimated the cost of carbon in economic impacts from global warming would be \$27-221 per ton by 2050⁷. Recent evidence suggests the anticipated costs maybe much higher, including large demographic displacements of human populations along coastlines⁸.



Planetary carbon cycle with exchange of carbon among land, atmosphere, and oceans (billions of tons of carbon per year)⁹. Yellow numbers represent natural carbon fluxes, red are carbon dioxide emissions in billions of tons of carbon per year. White numbers show stored carbon. Note the fossil fuel related carbon stores in the diagram. Forests are integral to the earth's carbon filtration system. http://en.wikipedia.org/wiki/Carbon_cycle

Photo: D. DellaSala



Forests as a Carbon Sink – forests are a vital part of the global atmospheric carbon cycle that contribute to climate stabilization by absorbing (sequestering) and storing vast amounts of carbon dioxide (CO₂) in trees (live and dead), soils, and understory foliage. As a forest ages, it continues to sequester and store carbon, functioning as a net “sink” for centuries if undisturbed. Ongoing carbon sequestration and storage has been measured in forests >800 years old¹⁰.

When a forest is cut down, roughly 66% to 80% of the stored carbon in the forest¹¹ is released overtime as CO₂ (some carbon is stored in wood products) thereby converting forests from a sink to a “source” or “emitter.” The minimal storage in wood products is an accounting misstep typical of federal agency carbon

⁷ Interagency Working Group on Social Cost of Carbon, United States Government. 2013. *Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866*. May.

⁸ Pizer et al. 2014. Using and improving the social cost of carbon. *Science* 346:1189-1190.

DOI:10.1126/science.125974

⁹ Reprinted from DellaSala, D.A. In 2013. The carbon cycle and global change: too much of a good thing. Reference Module in Earth Systems and Environmental Sciences, Elsevier. 3 pp.

<http://dx.doi.org/10.1016/B978-0-12-409548-9.05874-7>

¹⁰ Luyssaert, S. et al. 2008. Old-growth forests as global carbon sinks. *Nature* 455:213-215

¹¹ Wayburn, L.A. 2000 (several citations included). *Forest carbon in the United States: opportunities and options for private lands*. Pacific Forest Trust, San Francisco.

pronouncements that over value carbon in wood products¹².

Soon after logging, carbon is emitted to the atmosphere via rapid decomposition of logging slash, fossil-fuel emissions from transport and wood processing, and decay or combustion (within 40-50 years) of forest products in landfills¹³. Planting or growing young trees or storing carbon in wood products does not make up for emissions released from a logged forest. Indeed, after an old forest is clearcut, the young forest remains a net CO₂ emitter for 5 to 50 years, depending on site productivity¹⁴.

Logging on the Tongass is global warming pollution(photo: D. DellaSala)



Globally, deforestation (8-15%) and forest degradation (6-13%) **contribute more greenhouse gas pollution than the world's entire transportation network¹⁵**, which is why countries, including the U.S., have committed to reducing emissions and protecting forest sinks (COP 21 climate agreements). Recognizing the importance of unlogged forests as carbon sinks, scientists also have repeatedly called on countries to protect their vast forest carbon stores as integral to stabilizing global climate change¹⁶.

¹²The White House. 2015. Climate change and the land sector: improving measurement, mitigation and resilience of our natural resources.

¹³Harmon, M.E. W.K Ferrel, J. F. Franklin. 1990. Effects on carbon storage of conversion of old –growth forests to young forests. *Science* 247:699-702.

¹⁴Law, B. E., and M.E. Harmon. 2011. Forest sector carbon management, measurement and verification, and discussion of policy related to climate change. *Carbon Management* 2:73-84.

¹⁵Estimates are conservative as they were mainly derived from the tropics where the majority of forest losses occur – boreal and temperate losses are not available at this time. Intergovernmental Panel on Climate Change. 2007. Synthesis report. An assessment of the IPCC on climate change. Houghton, R.A., B.Byers, and A.A. Nassikas. 2012. A role for tropical forests in stabilizing atmospheric CO₂. *Nature Climate Change* 5:1022-1023.

¹⁶MackeyB., et al. 2014. Policy options for the world's primary forests in multilateral environmental agreements. *Conservation Letters* 8:139-147 DOI: 10.1111/conl.12120. Also letters sent to the Forest Service and USDA in 2015 signed by 7 scientific societies and hundreds of the nation's leading natural resource scientists calling on the Administration to protect the Tongass old-growth rainforest sink.

Photo: The Big Thorne logging operation on Prince of Wales Island converted Tongass old-growth rainforest from a carbon sink to a source of emissions (S. Ballhorn)



"The Tongass National Forest is a national treasure. Today, I am outlining a series of actions by USDA and the Forest Service that will protect the old-growth forests of the Tongass while preserving forest jobs in southeast Alaska. I am asking the Forest Service to immediately begin planning for the transition to harvesting second growth timber while reducing old-growth harvesting over time." July 3, 2013 Press Release, USDA Secretary Tom Vilsack.

Tongass Is Transitioning But Not Soon Enough – Agriculture Secretary Tom Vilsack announced in July 2013 that a transition away from old-growth logging would need to occur rapidly on the [Tongass National Forest](#) while maintaining a viable timber industry. In November 2015, the Forest Service released a [Draft Environmental Impact Statement \(DEIS\) Plan Amendment](#) to transition the Tongass from predominately old growth to predominately young-growth logging with the preferred alternative adopting recommendations of a multi-stakeholder Tongass Advisory Committee that incorporated years of additional old growth volume as “bridge timber” to accommodate the transition. Here, we compare the Forest Service preferred alternative to a conservation alternative prematurely dismissed by the Forest Service as not producing enough volume. The agencies’ decision to dismiss this alternative occurred before completion of independent field inventories that now show sufficient volume from young growth can accommodate a more rapid transition with minimal old growth (Appendix I, report in preparation).

In conducting the Tongass logging emissions analysis, we compared the following:

- *Forest Service Preferred Alternative* – proposes logging 43,167 acres of old growth and 261,850 acres of young growth over 100 years with extensive road building (road building was not calculated in emissions scenarios although it certainly contributes to emissions).
- *Conservation Alternative* – proposed by conservation groups to accelerate the transition while meeting timber demand targets of the Forest Service using much less old growth (OG) to transition. Young growth (YG) estimates were provided by Mater Engineering (Appendix I) from field-verified 55-year old pre-commercially thinned (PCT) YG sampled from a land base of 76,000 acres of relatively low controversy areas (i.e., areas not considered environmentally sensitive based on a suite of attributes, manuscript in preparation). An additional 9,125 acres of old growth was estimated for specialty wood products over 100 years (Appendix I).

We estimated carbon stored in young and old forests by interpolating data from prior estimates on the Tongass⁴ for above ground biomass, which was higher than estimates used by the Forest Service for live tree carbon only. We projected logging emissions of the two alternatives over 25- and 100-year increments. We then converted logging emissions to equivalent emissions from vehicles using [EPAs equivalencies calculator](#) and compared these projected emissions to CEQ’s draft “reference point” for minimizing emissions of federal actions. CEQ directs agencies to adopt projects with low emission using a reference of 25,000 metric tons of CO₂(e)¹⁷ on an annual basis¹⁸. We used the CEQ reference for two reasons: (1) to determine if the preferred alternative is generally consistent with the Obama Administration’s global warming commitments (COP 21, Paris agreements); and (2) to provide an appropriate regional comparison of logging emissions that is based on easy to understand emissions comparable. Notably, the Forest Service based logging emissions projections on comparisons to the entire U.S. annual greenhouse gas emissions (the wrong scale of comparison), masking the severity of regionally specific climate impacts.

ESTIMATING LOGGING EMISSIONS USING VEHICLE EQUIVALENTS

Photo: Juneauempire.com



Forest Service Preferred Alternative – In general, the agencies’ preferred alternative to log substantially more OG and YG than proposed by the conservation alternative is estimated to generate **annual** emissions that are:

- equivalent to 4 million vehicles annually for 100-years (Appendix II); and
- 175 times > the CEQ emissions reference.

Conservation Alternative – the transition proposed by the conservation alternative uses much less OG and is estimated to generate **annual** emissions that are:

- equivalent to 419,535 vehicles annually (Appendix II); and
- 16 times > the CEQ emissions reference.

The conservation alternative, while also exceeding CEQ’s reference, yields 10 times less emissions in the long-term compared to the agencies’ preferred alternative and therefore should have been kept in the DEIS as a reasonable alternative under NEPA. The agencies’ preferred alternative is generally inconsistent with the COP 21 climate agreements

¹⁷Carbon dioxide equivalents (CO₂e) are an internationally accepted term for comparing different greenhouse gas emissions using a common (standardized) unit of analysis.

¹⁸CEQ 2014. Draft published for public review and comment Dec. 2014. White House. https://www.whitehouse.gov/sites/default/files/docs/nepa_revised_draft_ghg_guidance_searchable.pdf

(Article 4 on greenhouse sinks) to conserve forests as a sink for atmospheric carbon and is well above the CEQ emissions reference.

SOCIAL COSTS OF CARBON

Photo: S. Ballhorn



[Executive Order 12866](#) requires federal agencies to “*assess both the costs and benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that benefits of the intended regulation justify its costs.*”

We provide an estimate of the social cost of carbon (SCC) derived from relevant published sources as a means for costing emissions in a regional context and to illustrate how the Forest Service could achieve compliance with the Executive Order by documenting climate costs of logging and the benefits of maintaining the Tongass carbon sink.

In any cost-benefit analysis, it is imperative to incorporate the *benefits* (or cost savings) of avoiding damages to the environment, or, in this case, the climate, so as to level the economic playing field (although many ecosystem services critical to properly functioning forests are difficult to quantify). In this case, SCC is expressed as monetized damages associated with incremental increases in emissions, including, but not limited to changes in net agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services. An Interagency Working Group on SCC estimated the **annual** cost of releasing emissions to be \$27-221 per ton of carbon using 2050 projections. For this analysis, we used the lower bound of \$27 per metric ton of CO₂(e) to estimate potential costs of logging emissions recognizing costs will escalate overtime as a result of the accumulation of regional and global emissions under status quo emissions scenarios.

Forest Service Preferred Alternative - CO₂ (e) released from logging would contribute to:

- ~\$108 million annually in global warming costs over 100 years. Estimated costs are 10 times greater than the \$8-10 million in annual wood products value anticipated by the Forest Service (DEIS Table 3.22-16).

Conservation Alternative - CO₂(e) released from logging would contribute to:

- ~\$11 million annually in global warming costs, a tenth as costly as the Forest Service alternative.

Thus, the conservation alternative represents a cost savings to the foreseeable future climate compared to the Forest Service's preferred alternative that would result in much higher costs due to greater logging emissions and this should have been included in the agencies' NEPA analysis. It should be noted that *only a no-logging alternative* results in maximizing carbon sinks and generating a positive SCC. This is because removing carbon from a forest always results in some costs to the climate (costs are based on the combination of regional logging intensity and global emissions contributions).

LIMITATIONS, UNCERTAINTIES, AND THE FUTURE CLIMATE

Photo: A. DellaSala



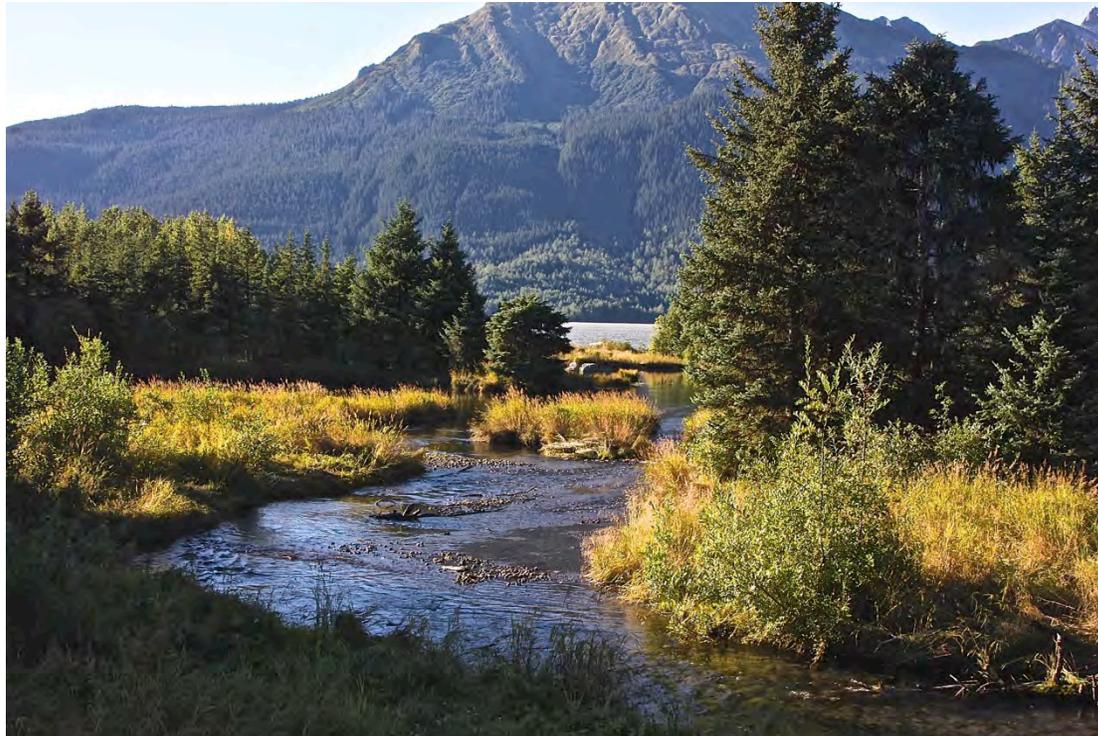
Follow Up Research and Monitoring – accurately estimating carbon in regional forest assessments requires the use of new carbon assessment tools and improved inventories (including soils) along with inclusion of sequestration rates (e.g., Net Ecosystem Productivity). Carbon assessments are costly but necessary to develop proper carbon flux estimates from logging and to evaluate SCC as a multiple-use objective. In this case, we approximated emissions from published sources, published estimates of carbon stored in wood products (using conversion factors), and published estimates of carbon capture via forest regrowth (using nationally recognized [online carbon tools](#)).

Without the benefit of a comparable analysis, however, the Forest Service claims that logging old-growth forests could result in *either a net loss or gain* of carbon depending on logging practices even though clearcut logging (a substantial emissions source) is the method of choice on the Tongass (some young tree retentions and small (<10 ac) clearcuts are proposed in young forests within Old Growth Reserves and Beach buffers by the agency). Our findings are meant to provide a better estimate of emissions than the DEIS. Moreover, we used an appropriate scale of analysis that tiers to CEQ emissions guidelines and used comparable emission sources (e.g., vehicle equivalents that are locally applicable) to evaluate the magnitude of regional impacts. Follow up work, ideally conducted by the Forest Service in collaboration with scientists, is needed to improve upon these estimates and address uncertainties.

Climate Shift Happens – Notably, the effects of climate change on forest productivity represents additional uncertainties. As the climate warms in Alaska, other vegetation types may replace conifer forests that evolved under a cooler climate³. For instance, during the Miocene millions of years ago Alaska was a much warmer place dominated by hardwood forests. As climate change now accelerates, it could lower carbon storage in conifer forests as the climate conducive to hardwoods gradually replaces conifers and some conifers die off from climate change effects (thereby releasing CO₂ as is currently

happening with an extensive die-off of Alaska yellow cedar¹⁹). However, the maritime climate of the Tongass might ameliorate some of these shifts compared to more extreme changes anticipated for interior Alaska and temperate rainforests to the south³.

Photo: A. DellaSala



ALASKA'S FIRST LINE OF CLIMATE CHANGE DEFENSE AT RISK: CONCLUSIONS

Although the Obama Administration took a leadership position during the climate negotiations in Paris, its global commitments to lower emissions and end deforestation ostensibly do not extend to Alaska's globally significant Tongass rainforest carbon sink.

The Administration has a unique opportunity to demonstrate to the world that it takes its climate change commitments seriously by quickening the pace of transition without relying on controversial timber sales that will cost more in future economic losses from climate change than the revenues generated by logging. The Forest Service has not conducted a logging emissions analysis as directed by CEQ. It has not conducted a cost-benefit analysis of the SCC implications of more OG logging and is out of compliance with Executive Order 12866. The feasibility of an accelerated transition was demonstrated in the conservation alternative summarily dismissed by the agency but which uses much less OG and generates far less emissions over time.

A robust analysis using carbon life cycle accounting is needed to more fully assess the social cost of carbon using advancements in forest carbon accounting as declared in recent climate change policies of the White House¹¹. The Tongass is a known carbon sink, yet land-use emissions¹¹ references the importance of climate resilience best achieved through ecosystem and landscape conservation. Ecosystem resilience, and therefore the Tongass carbon sink, will decline on the Tongass with another 100 years of OG logging and road building. Proposed logging will be occurring at a time when the climate is changing the likelihood that the Tongass can function as a climate refuge³.

"I loved Alaska and met so many inspiring people. Have to keep up the fight on climate change for their sake—and ours." President Obama on his September visit

The international community clearly spoke up in Paris about the strategic value of forest sinks in keeping global warming below the dangerous 2° C threshold. Choosing a climate responsible alternative for the Tongass would allow the Obama Administration to live up to its commitments to safeguard Alaska's climate, comply with the COP 21 climate agreements and its pledge to end global deforestation.

¹⁹Hennon P.E.et al. 2012. Shifting climate, altered niche, and a dynamic conservation strategy for yellow-cedar in the North PacificCoastal Rainforest. *Bioscience* 62: 147–158.

“We share the vision of slowing, halting, and reversing global forest loss while simultaneously enhancing food security for all. Reducing emissions from deforestation and increasing forest restoration will be extremely important in limiting global warming to 2°C.” United Nations Climate Summit New York Declaration on Forests (agreed to by 157 governments, including the U.S, indigenous groups, corporations, NGOs, and others)

APPENDIX I. YOUNG GROWTH LOGGING LEVELS NEEDED TO HIT TIMBER DEMAND THRESHOLDS OF THE FOREST SERVICE CALCULATED FROM MATER 2015 PHASE II CRUISE RESULTS (IN PUBLICATION PREPARATION).

Estimated Avg Length of Tree Residual for PCT Stands When Harvest at 55 yrs Based on 2015 Cruise Results <i>(lineal ft from top of merchantable log to tree top)</i>			Conservation Alternative <ul style="list-style-type: none"> With 80% merchantable volume growth every 5 yrs per 2015 cruise results Focus on <i>one and a half</i> log-producing trees
Trees producing <i>two</i> 34' logs (ft)	Trees producing <i>one and a half</i> 34' logs (ft)	Trees producing <i>only one</i> 34' log (ft)	
2020	36	27.4	40.86
2025	38.7	41.1	45.23
2030	33.4	31.9	39.39

Industry Demand (DEIS)	46,000	
	Public Law 113-291	
Total acres harvested; first 10 years	15,000 ac max	13,272 ac
Annual acres harvested; first 5 years	3,000 ac max	1,696 ac
Annual acres harvested; next 5 years	3,000 ac max	958 ac
Total acres harvested overall	50,000 ac max	44,636 ac
Acres harvested per year after 10 years	5,000 ac max	697 ac
Total acres harvested: 25 years		23,727
Total acres harvested: 100 years		76,002 (44,636 before re-harvest)

APPENDIX II: ESTIMATED LOGGING EMISSIONS UNDER THE FOREST SERVICE PREFERRED ALTERNATIVE (DEIS) VS. A CONSERVATION ALTERNATIVE IN 25- AND 100-YEAR INCREMENTS AND IN RELATION TO CEQ'S EMISSIONS GUIDELINES (25,000 METRIC TONS CO₂ (E) ANNUALLY)

	DEIS	Conservation Alternative
	<ul style="list-style-type: none"> Comply with PL 113-291 (harvest <u>below</u> CMAI) on 14% of acres Harvest <u>above</u> CMAI on 86% of acres Harvest <u>above</u> stated FS demand volume (46 mmbf/yr) 	<ul style="list-style-type: none"> Comply with PL 113-291 (harvest <u>below</u> CMAI) on 100% of acres Harvest <u>capped</u> at FS demand volume (46 mmbf/yr)
Acres to be harvested first 25 years	<ul style="list-style-type: none"> 37,390 ac SG below CMAI (@65 yrs) 23,223 ac OG (@ 120 yrs) 	<ul style="list-style-type: none"> 23,727 ac SG below CMAI (@55 yrs) 3,500 ac OG (@ 120 yrs)
Acres to be harvested next 75 years	<ul style="list-style-type: none"> 224,460 ac SG above CMAI (@120 yrs) 19,944 ac OG (@ 120 yrs) 	<ul style="list-style-type: none"> 52,273 ac SG below CMAI (@55 yrs) 5,625 ac OG (@ 120 yrs)
	After initial harvest, re-growth, and (where applicable) re-harvest:	
Total CO ₂ (e) emissions	In 25 years	In 25 years
	105,347,668 tons (4,213,907 tons/yr)	36,576,407 tons (1,463,056 tons/yr)
	In 100 years	In 100 years
	441,068,733 tons (4,410,733 tons/yr)	41,953,532 tons (419,535 tons/yr)
Multiplier above CEQ annual CO ₂ (e) emissions limit of 25,000/yr	In 25 years	In 25 years
	x 168	x 58
	In 100 years	In 100 years
	x 175	x 16

Calculation Notes (all other calculations will be posted online):

- Carbon values interpolated from Leighty et al. 2006 Fig. 2 for age classes as follows: 55 years (494 tons per ac), 65 years (585 tons per acre), 120 years (776 tons per acre).
- Emissions adjusted to account for wood products stores using published estimates in footnote 10 and then multiplied by 3.67 to convert to metric tons CO₂ (e).
- Logging emissions are equivalent to passenger vehicle emissions <http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.
- CEQ reference = 25,000 metric tons CO₂ (e): <https://www.federalregister.gov/articles/2014/12/24/2014-30035/revised-draft-guidance-for-federal-departments-and-agencies-on-consideration-of-greenhouse-gas>
- PL 113-291 requires: no more than 50,000 acres of initial YG (not including re-harvest acres) logging; total YG logging in first ten years cannot exceed 15,000 ac; 3,000 ac annual acres in first five years; 3,000 acres annual in 6-10 yrs; and 5,000 YG acres annual after 10 years. If the timber volume goal is 46 mmbf/yr and compliance with PL113-291, the conservation alternative would log: 8,480 acres YG in 2020-2024 (1,696 ac/yr @ 13mbf/ac with a 1.5 multiplier for long log to short log recovery factor) producing 33 mmbf/yr.; not enough pre-commercially thinned 55-yr old stands are available at this time to meet the timber target exclusively from YG); 4,790 acres in 2025-2029(958 ac/yr @ 32mbf/ac with a 1.5 multiplier for long log to short log recovery factor meets that target); 697 acres YG annual logging beginning in 2030 (1.5 multiplier for long log to short log recovery factor producing 46 mmbf/yr @ 44 mbf/ac). See Appendix I for Mater 2015 YG numbers plus specialty OG products (e.g., 3 mmbf/yr = 75 ac OG logged per year using a mid point of 40,000 board feet per acre Class 6 old growth (Tongass DEIS: 3-295) to back calculate to acres logged).

EXHIBIT 12

Sealaska, Sealaska Will Protect Thousands of Acres of Forest in the Tongass for Over 110 Years
(Mar. 27, 2018)

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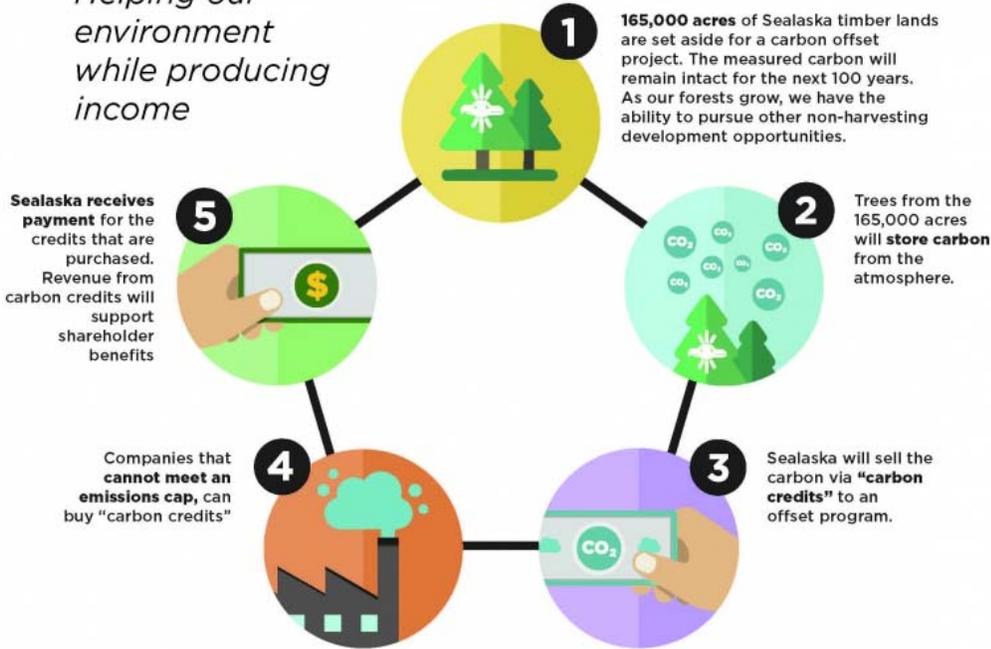
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Sealaska Will Protect Thousands of Acres of Forest in the Tongass for Over 110 years
Sealaska received approval from the California Air Resource Board (CARB) to designate 165,000 acres of forested land for use as a carbon bank. The Sealaska Native Alaskan Forestry Project is the first Alaska project to be issued carbon offset credits. It's also the second largest amount of credits issued to a single organization.

SEALASKA'S CARBON OFFSET PROGRAM

Helping our environment while producing income



In mid-March, Sealaska received approval from the California Air Resource Board (CARB) to designate 165,000 acres of forested land for use as a carbon bank. The *Sealaska Native Alaskan Forestry Project* was issued approximately 11.0 million carbon credit offsets (CCOs) by CARB. The Air Resource Board is the "clean air agency" for the California government and manages California's cap and trade and carbon credit offset program. Finite Carbon helped broker a three-year purchase agreement of the credits between Sealaska and a compliance entity.

The *Sealaska Native Alaskan Forestry Project* is the first Alaska project to be issued carbon offset credits. It's also the second largest amount of credits issued to a single organization. As a protective measure for any possible natural-causing carbon destruction, like forest fires, the total number of sellable credits is approximately 9.3 million.

Sealaska set aside 165,000 acres of land for the project. Trees from the lands will store--or bank--carbon dioxide from the atmosphere through a process called [carbon sequestration](#).

Sealaska's carbon project came about as a result of discussions and input from our local Southeast Alaska communities about the future of our forestry operations and maximizing the full potential of our people. We listened to their needs and concerns and believe that the carbon bank is an innovative solution that creates value for our Sealaska shareholders now and into the future.

salmon and other wildlife throughout Sealaska lands. We chose watersheds and fish habitat areas because we are committed to the health and productivity of our ocean waters and marine environment, which reinforces our new strategic direction.

The proceeds from the carbon credits will be invested back into Sealaska shareholders, businesses and communities for generations to come. Sealaska is in a financially strong position. We will utilize our carbon credit proceeds, our growing cash from our business successes, as well as the strength of natural resource and investment income to strategically plan to increase the value we deliver to our shareholders.

For 110 years and multiple generations, the acres will be untouched by commercial harvesting. Sealaska shareholders will still have access to all of Sealaska's land for subsistence and natural harvesting including the lands in the project. Sealaska can still access the lands for cultural needs, such as logs to donate for totem poles and other community cultural projects. Sealaska can still pursue non-timber development opportunities.

Sealaska will still maintain an active and healthy working forest on our remaining timberlands. Harvesting timber sustainably produces net income to Sealaska and jobs and economic activity within the Southeast Alaska region. Our vision is for present and future generations of shareholders to have the ability to benefit from our land. Sealaska will continue to find opportunities to create the greatest financial, community and cultural benefit from Sealaska lands.

Published Story

[From KTOO -- Sealaska Corporation announces multi-million dollar deal to keep trees in the ground](#)

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EXHIBIT 13

Letter of H. McIntosh, The Boat Company to C. French, U.S. Forest Service (Oct. 2018)



Hunter McIntosh, President
The Boat Company
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Washington, D.C. 20036
(202) 338-8055

Acting Deputy Chief Chris French
c/o Alaska Roadless Rule
USDA Forest Service, Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, Alaska 99802-1628
Submitted electronically at: <https://www.fs.usda.gov/project/?project=54511>

Attn: Roadless Area Conservation; National Forest System Lands in Alaska

Dear Mr. French:

I submit these comments on behalf of The Boat Company in support of maintaining the 2001 Roadless Area Conservation Rule's (Roadless Rule) prohibition on timber sales and road construction in inventoried roadless areas in southeast Alaska. The Boat Company is a small cruise vessel eco-tour operator - part of a visitor products industry that provides thousands of visitors with scenic views of southeast Alaska coastlines, fjords and forests, hiking, beach combing, wildlife viewing and other remote recreation experiences throughout southeast Alaska. The visitor products industry is the largest, growing private sector economy in the region and requires guided public access to unroaded and intact or recovering forest ecosystems in remote areas. The Roadless Rule ensures a supply of these areas to meet growing market demand for visitor products and is the most sensible ecological and economic policy for 21st century southeast Alaska. Every small cruise operator and sport fishing guide commenting on this proposal to date supports the Roadless Rule.¹

However, the Forest Service now proposes to undo this fiscally responsible, pro-business policy. The plan is to initiate a rulemaking process and develop an environmental impact statement (EIS) in response the State of Alaska's recent petition seeking an exemption or site-specific exemptions to the Roadless Rule. Southeast Alaska's visitor products industry relies heavily on inventoried roadless areas which supply remote recreation opportunities. The supply of inventoried roadless areas provides a significant comparative advantage to the 21st century southeast Alaska economy relative to other destinations. Demand is high, and there is a shrinking supply of undeveloped areas for outdoor adventure.

¹ See <https://cara.ecosystem-management.org/Public//ReadingRoom?Project=54511> (last accessed October 12, 2018).

The State of Alaska's petition makes clear its primary purpose is to increase the acreage available to federal timber sale purchasers.² The Boat Company and other tour operators would lose our comparative advantage in the national and global economy. Any measure that reduces Roadless Rule restrictions on timber harvest and road construction activities is likely to displace the guided public and associated business activity. The State of Alaska and Forest Service wrongly believe that the Roadless Rule harmed the regional economy and cling to the false hope that authorizing timber entries into inventoried roadless areas would further economic development in Alaska.³ The rationale for the proposed action ignores market-based socio-economic changes in the region. Timber entries into inventoried roadless areas would harm the two largest private-sector economies – tourism and fishing.

The primary problem with the proposed action is a state and federal failure to confront simple supply and demand concepts. The 2000 Roadless Area Conservation FEIS recognized that over time, the socio-economic effects of the Roadless Rule would reflect broader economic forces. If timber markets continued to decline, prohibitions on timber entries into inventoried roadless areas would have a marginal impact. Conversely, if demand for remote recreation in southeast Alaska increased, the region would benefit from having a comparative advantage in its supply of acreage available for outdoor adventure opportunities. Now, nearly two decades after the promulgation of the 2001 Roadless Rule, the visitor products industry has ballooned while the timber products industry has shrunk and shifted its manufacturing capacity to China. Market forces operating in local economies favor maintaining the existing supply of inventoried roadless acreage.

The Boat Company thus requests that the DEIS analyze potential harms to the visitor products industry that may accrue from displacement by timber operations, loss of scenic values, and harm to fish and wildlife. Remoteness, wildlife and scenery form the main visitor attractions in southeast Alaska.⁴ As explained in the Juneau Economic Development Council's Visitor Products Cluster's May 2017 letter to Forest Service leaders, this "wild infrastructure" of public lands and waterways that provide scenery, fishing and wildlife resources brings in over a million visitors annually, driving a billion dollar economy that is the largest source of private sector employment in southeast Alaska.⁵ Wild infrastructure includes inventoried roadless areas used by The Boat Company adjacent to Peril Straits, the mainland adjacent to Stephens Passage, north Kuiu Island and Frederick Sound. Larger tour operators use inventoried roadless areas throughout southeast Alaska.⁶

² State of Alaska. Petition for Rulemaking to exempt the Tongass National Forest from application of the Roadless Rule and other actions. January 19, 2018. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/109834_FSPLT3_4406959.pdf (last accessed October 6, 2018). The Notice of Intent suggests that an exemption would address non-timber infrastructure needs. This comment letter however focuses on the effort to repeal restrictions on timber harvest and road construction. The focus of the Roadless Rule itself was on timber and timber road construction due to the public cost and potential scale of environmental degradation. The Forest Service has permitted numerous other infrastructure projects in inventoried roadless areas. The stated non-timber purposes are disingenuous. See <https://www.fs.usda.gov/detail/roadless/alaskaroadlessrule/?cid=fseprd591995>.

³ Roadless Area Conservation, National Forest System Lands in Alaska. 83 Fed. Reg. at 44253 (August 30, 2018).

⁴ U.S. Forest Service. 2000. Roadless Area Conservation Final Environmental Impact Statement at 3-373 (hereinafter Roadless Rule FEIS)

⁵ See http://www.jedc.org/sites/default/files/Policy_letter%20sign%20on_5_25_2017.pdf .

⁶ See <https://www.uncruise.com/destinations/alaska-cruises>.

I. The Roadless Rule protects and advances southeast Alaska's economy and society

The Boat Company requests that the DEIS describe, quantify and analyze the beneficial effects of the Roadless Rule for the hundreds of thousands of Americans who comprise the guided public, the outfitter/guides who serve the guided public, and southeast Alaska municipalities that function as “gateway communities” because of their proximity to undeveloped public lands. As explained by the 2000 Roadless Rule FEIS: “[t]he protection of roadless areas will benefit communities with a strong economic ties to dispersed recreation uses”⁷ The DEIS should also analyze and disclose the adverse effects of Roadless Rule exemption alternatives on remote recreation opportunities. By remote recreation, The Boat Company refers to activities variously described in the 2000 Roadless Area Conservation FEIS – outdoor adventure, semi-primitive non-motorized recreation, hiking, adventure tourism etc. – the specific types of non-motorized recreation activities that rely on access to unroaded, undeveloped lands where evidence of industrial activity is absent.

A. Supply and comparative advantage: intact inventoried roadless areas = economic opportunity

The Roadless Rule benefits Southeast Alaska by maintaining “the wild and unspoiled nature of many inventoried roadless areas” and conserving the remote and semi-remote recreational opportunities commonly sought in southeast Alaska that are not available in roaded areas.⁸ The supply of unroaded areas for remote and semi-remote recreation is diminishing while demand for recreation activities in these areas is growing.⁹ The only other relatively undisturbed landscapes are in federal Wilderness.¹⁰ Wilderness areas are off limits to many tour operators – heightening the importance of maintaining inventoried roadless areas in their current condition.¹¹ The DIES must analyze the consequences of removing all or a significant portion of inventoried roadless acreage on tour operators, the guided public and gateway communities that rely on access to undeveloped inventories roadless areas.

The 2000 Roadless Area Conservation FEIS projected that the effects of the Roadless Rule in southeast Alaska could be beneficial as the regional economy shifted further away from timber towards recreation and related uses by maintaining “sustainable fish and wildlife populations, natural scenery, and feeling of remoteness.”¹² As the largest provider of outdoor recreation opportunities, the Forest Service had already shifted its management focus from timber to recreation in other parts of the country.¹³

The Forest Service recognized that supply and demand would drive changes in the respective values of southeast Alaska inventoried roadless areas for different uses. Broader economic trends and community adaptation to changing markets for resource-based industries would dictate the extent to which the Roadless Rule provided economic benefits to the region’s growing visitor products industry.¹⁴ At a national level, demand for remote

⁷ Roadless Rule FEIS at 3-371.

⁸ *Id.* at ES-7, 1-4.

⁹ *Id.*, see also *id.* at 3-213.

¹⁰ *Id.* at 3-213.

¹¹ See https://www.fs.usda.gov/nfs/11558/www/nepa/85357_FSPLT3_3990922.pdf .

¹² Roadless Rule FEIS at 3-389.

¹³ *Id.* at 3-275.

¹⁴ *Id.* at 3-389.

recreation opportunities was increasing even as the supply was diminishing.¹⁵ The Roadless Rule could thus benefit southeast Alaska by “preserv[ing ...] economic opportunity associated with remote recreation and adventure tourism.”¹⁶ There already was an economic shift in response to increased demand for Tongass tourism – recreation and tourism levels had more than doubled between the mid-1980s and mid-1990s.¹⁷ By maintaining lands for dispersed recreation opportunities, the Roadless Rule could provide stability for gateway communities to maximize benefits from this growing economic sector.¹⁸

Since 2000, demand for visitor products has continued to grow. Communities throughout the region developed marketing strategies and small businesses aimed at capitalizing on the region’s wild infrastructure. Alaska’s popularity is growing - particularly southeast Alaska which hosts two-thirds of all state visitors, making it the most visited region of the state.¹⁹ The visitor products industry thrives because of the supply of scenery, gateway communities and outdoor adventure opportunities, with consistent annual increases in industry employment and earnings.²⁰ Growth in visitor products industry jobs have offset job losses in other economic sectors.²¹ The Southeast Conference’s 2017 annual economic report identifies the visitor products industry as the region’s top private sector industry in terms of both jobs and wages. The report notes that “tourism is booming” and identified 2017 as a record year for cruise and air passengers, along with jobs and spending.²²

In sum, southeast Alaska’s comparative advantage in the national and global economy is its “remarkable and unique combination of features including inland waterways with over 11,000 miles of shoreline, mountains, fiords, glaciers and large or unusual fish and wildlife populations that provide opportunities for a wide range of outdoor recreation experiences.”²³ Given the importance of these features to the strong economic performance of the visitor products industry, the DEIS must disclose that the Roadless Rule benefits the regional economy and analyze, describe and quantify the contributions of inventoried roadless areas in providing these features to a degree that reflects their relative importance.²⁴

B. Market Demand: Small cruise eco-tour operators and remote recreation

The DEIS needs to consider maintaining the current supply of inventoried roadless acreage in order to best accommodate increased demand for outfitting and guiding services and provide for growth and stability in gateway communities.²⁵ Forest Service data show

¹⁵ *Id.* at 3-214; -220, -223.

¹⁶ *Id.* at 3-389.

¹⁷ *Id.* at 3-275.

¹⁸ *Id.* at 3-215.

¹⁹ Raincoast Data 2017 at 1, 5. Available at <http://raincoastdata.com/portfolio>

²⁰ *Id.* at 3.

²¹ www.raincoastdata.com/sites/default/files/Southeast%20Alaska%20by%20the%20numbers%202018%20updated%20Sept%202025.pdf .

²² Raincoast Data 2017 at 1.

²³ U.S. Forest Service. 2016. Tongass Land and Resource Management Plan Final Environmental Impact Statement at 3-357. R10-MB-769e (hereinafter 2016 TLMP FEIS).

²⁴ *Id.* at 3-477 – 3-524 (developing 30 pages of discussion that review timber market scenarios and business interests while devoting a handful of pages of analysis to the region’s largest private sector economies - tourism and fishing).

²⁵ See Roadless Rule FEIS at 3-223, 3-275.

strong demand for services provided by outfitters and guides. The number of guided clients on the Tongass National Forest is increasing at a high rate - from 533,388 clients during the recession in 2011 to 624,667 clients in 2015 - a 15 percent increase.²⁶ The primary activities sought by the guided public – both in the past and in the present - are dispersed, active and remote outdoor recreation experiences such as hiking, kayaking and wildlife viewing.²⁷

The Boat Company's two vessels are part of the small cruise vessel fleet - a diverse group of overnight commercial passenger vessels including yachts and smaller motor vessels that carry between 6 and 250 passengers. Many of the small cruise companies have Forest Service special use permits and provide visitors with roadless remote recreational opportunities. Passenger capacity in southeast Alaska alone increased to over 16,200 passengers in 2015, up from a statewide passenger capacity of 8,800 passengers in 2011.²⁸ Twenty-four small cruise vessels carrying more than 20 passengers each operated in southeast Alaska in 2015.²⁹ Since then, three companies have added four more vessels and considerable additional passenger capacity to the southeast Alaska fleet.³⁰ All of these vessels operate in or adjacent to southeast Alaska inventoried roadless areas.³¹

Small cruise vessel companies increase the number of multi-day visitors to the region and bring visitors to wider range of southeast Alaska communities. The 2000 Roadless Area Conservation FEIS explains that recreation use generates considerable economic benefits for small businesses in gateway communities – particularly through non-resident visitors who bring in “outside” dollars.³² In 2015, 11 small cruise companies offered 46 itineraries that visit southeast Alaska communities, resulting in multiple weekly port calls to southeast Alaska communities of every size from larger communities such as Juneau, Ketchikan and Sitka to mid-sized communities such as Haines, Hoonah, Kake, Petersburg and Wrangell and even to smaller communities such as Kassan, Skagway and Tenakee Springs.³³

These gateway communities have developed targeted marketing strategies accompanied by additional infrastructure and new local economies, including small business development.³⁴ For example, Kake and other partners are investing in reconstruction of the

²⁶ U.S. Forest Service. 2017. Shoreline II Outfitter/Guide Final Environmental Impact Statement at 3-12, Table 3-5.R10-MB-793c (hereinafter Shoreline II FEIS).

²⁷ *Id.* at 3-57 (remote-setting nature tours comprise 63 % of guided public activities in northern Tongass ranger districts); Roadless Rule FEIS at 3-73 (62% of recreation on Tongass is semi-primitive).

²⁸ See Alaska Division of Economic Development. 2016. Trends and opportunities in Alaska's small cruise vessel market (hereinafter Alaska 2016 Small Cruise Market). Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd530432.pdf .

²⁹ *Id.*

³⁰ See <http://uncruise-alaska.com/ships/s-s-legacy/> ; <https://www.expeditions.com/why-us/our-fleet/national-geographic-quest/overview/> ; <https://www.alaskandreamcruises.com/fleet/chichagof-dream>.

³¹ Alaska 2016 Small Cruise Market; see also <https://www.uncruise.com/destinations/alaska-cruises/alaska-experience-guide> (showing representative cruise routes and destinations).

³² Roadless Rule FEIS at 3-275.

³³ Alaska 2016 Small Cruise Market.

³⁴ Goodrich, B. 2015. Rebuilding Alaska: Breathing new life into Kake's historic cannery, Reconstruction Project to incubate business and stimulate rural Alaska economy. In: Alaska Business Monthly, December 10, 2015. See also http://www.wrangell.com/sites/default/files/fileattachments/economic_development/page/3360/2016_profile.pdf ; <http://kaketribalcorporation.com/tourism.html>;

historic cannery so that it will provide space for artisans, vendors and other activities.³⁵ These investments in the visitor products economy reflect market demand trends for rural Alaska community experiences and an economic development model proven to be successful over the past decade by increasing local jobs, municipal revenues and visitor spending.³⁶

The small cruise vessel economy provides significant returns on these investments in the visitor products economy. Conservative estimates show that one small cruise vessel operating from May to September with a seasonal total of 700 passengers can generate \$1.3 million in combined company spending on fuel, moorage, supplies, services and taxes and client spending on shopping, lodging, meals, transportation and activities.³⁷ The estimate is conservative; actual spending data for small cruise passengers is not available so the estimate reflects data based on per person spending from all Alaska cruise passengers and is likely lower than per visitor spending by small cruise vessel clientele.³⁸

In sum, a robust new market-based economic sector has emerged in response to demand trends for outdoor adventure and remote, non-motorized recreation experiences. This sector has replaced a heavily subsidized, declining and mostly absent timber economy in southeast Alaska communities. The growth in small cruise vessel passenger capacity and corresponding increase in guided public use warrants careful analysis of non-timber economic values associated with inventoried roadless areas. The analysis should also consider market demand impacts on the special use permitting process, particularly small cruise and eco-tour operators, including the even greater pressure on access to special use permits in a shrinking geographic space.

C. Adverse impacts on supply: the DEIS must analyze how Roadless Rule exemption alternatives will harm the visitor products industry and local economies

The DEIS needs to analyze the adverse impacts of exemption alternatives on the regional economy, and particularly how potential reductions in the supply of inventoried roadless acreage will create instability and reduce growth in the visitor products economy and harm gateway communities. The State of Alaska's small cruise report explains that:

[t]he number one challenge that operators indicated was lack of sufficient access to public land. These operators require increased and more flexible access to landing sites, including new and maintained trails to provide sufficient space between clients traveling on different vessels. The branding that is associated with [small cruise tours] is one of uncrowded experiences away from masses of people and the companies that depend heavily on access to U.S. Forest Service land along the cruise routes, any action that limits access ... threatens business stability and reduces opportunities for growth.³⁹

Guided public access depends primarily on marine transportation for shoreline based recreation - the terrain and topography of southeast Alaska makes much of rest of the land

[https://www.petersburgak.org/vertical/sites/%7B4767CF81-336B-467E-95E0-0AA7DA2030AC%7D/uploads/small_cruise\(1\).pdf](https://www.petersburgak.org/vertical/sites/%7B4767CF81-336B-467E-95E0-0AA7DA2030AC%7D/uploads/small_cruise(1).pdf) .

³⁵ Goodrich, B. 2015.

³⁶ D'Oro, R. 2011. Alaska natives gain foothold in tourism. *Available at:* http://www.nbcnews.com/id/42414829/ns/travel-destination_travel/t/alaska-natives-gain-foothold-tourism/#.Wq6ilpch3IV

³⁷ Alaska 2016 Small Cruise Market.

³⁸ *Id.*

³⁹ *Id.*

base unsuitable for outdoor recreation.⁴⁰ For various reasons, many cruise operators already face access limitations that allow for guided public use in just a handful of permitted access points along their routes.⁴¹ For example, in Alaska, 41% of the inventoried roadless areas abut Wilderness areas where Forest Service policies severely restrict guided public access.⁴²

Roadless Rule exemption alternatives will limit guided public access and reduce the quality of the visitor experience. Small cruise vessel companies depend on the ability to market and provide unique recreation experiences.⁴³ This business model requires guided public access not just to lands in general but rather to uncrowded areas that offer higher quality recreation experiences in environments that free from industrial activities.⁴⁴ As the Roadless Area Conservation FEIS explains, “most outfitters and guides prefer natural appearing landscapes, so cutover areas could be avoided until they grow back.”⁴⁵ Visitors expect to see the region in “a wild and ‘unspoiled state.’”⁴⁶

Exemption alternatives will create congestion by forcing visitor products providers to operate within a limited supply of inventoried roadless acreage. The 2000 Roadless Area Conservation FEIS recognized that increased demand for recreation would result in more competition for available areas and conflicts between recreation users, with demand and carrying capacity exceeding supply in various locations.⁴⁷ The growth of the visitor industry over the past two decades has created management challenges in terms of providing sufficient access to remote recreation opportunities.⁴⁸

The DEIS for this action should also analyze the extent to which negative economic impacts on outfitters and guides and reductions in scenic integrity caused by exemption alternatives will create instability in gateway community economies.⁴⁹ Inventoried roadless areas generally have high scenic integrity that contributes to economic viability of gateway communities.⁵⁰ The analysis in the 2000 Roadless Area Conservation FEIS explained that:

There would be a decline in the land base available for recreation opportunities in relatively undisturbed landscapes outside of Wilderness. Development, such as road construction, would be likely to negatively affect scenic quality on affected areas. Since inventoried roadless areas tend to have high scenic integrity, management actions would likely reduce scenic integrity, which could negatively affect recreation values⁵¹

⁴⁰ 2016 TLMP FEIS at 3-357.

⁴¹ Alaska. 2016. Small Cruise Market at 4.

⁴² Roadless Rule FEIS at 3-137.

⁴³ See 2016 TLMP FEIS at 3-357.

⁴⁴ Juneau Economic Development Council. 2011. Southeast Alaska Visitor Products. Available at: <http://www.jedc.org/forms/5.%20Visitor%20Products%20Cluster%20Initiatives.pdf>

⁴⁵ Roadless Rule FEIS at 3-224.

⁴⁶ 2016 TLMP FEIS at 3-357.

⁴⁷ Roadless Rule FEIS at 3-220-221.

⁴⁸ See, e.g. Shoreline II FEIS.

⁴⁹ Roadless Rule FEIS at 3-224; 3-278; 3-280.

⁵⁰ *Id.* at 3-228.

⁵¹ *Id.* at 3-278.

In sum, timber entries into inventoried roadless areas sales will displace guided visitors and cause negative economic impacts on outfitters and guides, harming local economies and small businesses in gateway communities. The DEIS must disclose and analyze adverse socio-economic impacts caused by Roadless Rule exemption alternatives.

II. Timber Taxpayer Losses and Supply and Demand: The Forest Service needs to revisit its assumption about the role of timber sale purchasers in the regional economy

The stated need for the proposal to create Alaska-specific exemptions to the Roadless Rule is to implement “roadless area management ... that accommodates the unique biological, social and economic situation in and around the Tongass National Forest.”⁵² The Forest Service believes that timber removals and road construction in inventoried roadless areas contribute to the socio-economic context by providing economic development opportunities in Alaska.⁵³ The State of Alaska’s petition insists that the Roadless Rule has caused “extensive” or even “devastating” impacts to the economic and social fabric of Southeast Alaska because it restricts road construction and timber removals.⁵⁴ These assumptions form the primary premise for the proposed action and grossly mischaracterize actual socio-economic trends in the region. Further, the potential public cost of facilitating timber entries into inventoried roadless areas is staggering. The DEIS must re-evaluate the State of Alaska’s and Forest Service’s socio-economic assumptions.

An EIS serves two functions: (1) to ensure that agencies take a hard look at the environmental impacts of proposed projects and (2) to ensure the availability of information to the public so as to enable public participation.⁵⁵ An EIS cannot serve these functions if it reflects misleading economic assumptions.⁵⁶ This includes an obligation to disclose any uncertainties about the feasibility of an agency plan or project, such as the relationship between long-term, global timber market declines and the agency’s projections. As explained by the Fourth Circuit:

Misleading economic assumptions can defeat the first function of an EIS by impairing the agency’s consideration of the adverse environmental effects of a proposed project. NEPA requires agencies to balance a project’s economic benefits against its adverse environmental effects. The use of inflated economic benefits in this balancing process may result in approval of a project that otherwise would not have been approved because of its adverse environmental effects. Similarly, misleading economic assumptions can also defeat the second function of an EIS by skewing the public’s evaluation of a project.⁵⁷

A. The DEIS must analyze whether expanding federal lands available to timber sale purchasers will realize local economic objectives

The 2000 Roadless Area Conservation FEIS projected that the Roadless Rule would shrink the supply of timber and result in a shortage for Southeast Alaska timber processors. Areas outside of inventoried roadless areas would allow for annual timber removals of 50

⁵² 83 Fed. Reg. at 44,252.

⁵³ *Id.* at 44,252-44,253.

⁵⁴ See https://www.fs.usda.gov/nfs/11558/www/nepa/109834_FSPLT3_4406959.pdf.

⁵⁵ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); *State of Cal. v. Block*, 690 F.2d 753, 767 (9th Cir. 1982).

⁵⁶ *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d, 437, 446 (4th Cir. 1996).

⁵⁷ *Id.*

million board feet.⁵⁸ The agency's concern was that this volume would support some but not all existing and planned timber processing facilities in southeast Alaska.⁵⁹ The Forest Service feared that Roadless Rule restrictions could reduce timber take by 77 million board feet per year and cause economic harm to communities where the industry was a "cornerstone."⁶⁰

However, the Forest Service also recognized that its ability to provide consistent timber volumes would be less influential in the stability of rural communities than changes in timber industry economics and other macroeconomic forces.⁶¹ By 2000, increased competition was already eroding Alaska's market share and competitive position.⁶² If demand declines continued, prohibitions on timber extraction and road construction would have a greatly reduced influence on local economies, even within a short period of time.⁶³ The 2000 Roadless Area Conservation FEIS explained that:

Even if land managers could provide an even flow of timber offerings, the industry has changed to such an extent that it can no longer be assumed that local mills will be the successful bidder for Agency timber sales, nor that local communities will receive logging and processing jobs as a result of those sales. In today's market, the destination of Federal timber is generally unpredictable as processors reach far to supply their mills. Log sorting yards and high efficiency mills disperse logs differently, directing logs to their most profitable use. These conditions undermine confidence that the Federal timber-supply policy is capable of supporting jobs in specific communities.⁶⁴

Now, nearly two decades later, economic data support the projections regarding the declining market demand trends and competitive disadvantages faced by southeast Alaska timber sale processors in a global economy. Estimated mill production will be less than a third of the 50 million board feet deemed necessary in 2000 to support southeast Alaska timber processors.⁶⁵ Most of the processing now happens in China.⁶⁶ There are only two large timber sale purchasers and the Tongass timber sale program transition is to a raw log export model which sends at least six million board feet to non-Alaska processors for every million board feet processed in Alaska.⁶⁷

These changes mean that exemption alternatives will not generate economic opportunity in southeast Alaska communities. The 2000 Roadless Area Conservation FEIS identified nine communities in southeast Alaska as timber-dependent based on employment data and wood processing activity.⁶⁸ It projected that Roadless Rule prohibitions on timber

⁵⁸ Roadless Rule FEIS at 3-379.

⁵⁹ *Id.*

⁶⁰ *Id.* at ES 7.

⁶¹ *Id.* at 3-327.

⁶² *Id.* at 3-388.

⁶³ *Id.*

⁶⁴ *Id.* at 3-327.

⁶⁵ 2016 TLMP FEIS at 3-492, Table 3.22-8.

⁶⁶ See <https://www.alaskapublic.org/2018/09/25/chinese-tariffs-hit-southeast-alaskas-struggling-timber-industry/>

⁶⁷ 2016 TLMP FEIS at 3-492, Table 3.22-8.

⁶⁸ Roadless Rule FEIS at 3-333.

removals and associated road construction would be harmful to several Prince of Wales Island communities, Wrangell, Petersburg, Ketchikan and Hoonah.⁶⁹

But very few, if any, of the communities identified as timber dependent two decades ago would meet the employment and processing thresholds today. 21st century southeast Alaska communities lack local laborers and businesses involved in the large timber sale program. The Forest Service's own 2016 Tongass Land Management Plan FEIS shows that large timber sale purchasers are irrelevant to the economies of communities once identified as timber dependent. Only two of the 24 smaller rural communities in southeast Alaska have any timber activity at all, while the rest depend primarily on fishing and tourism.⁷⁰

For example, the Forest Service's 2016 survey of mill production showed that nearly 98% of the 2016 log processing in Southeast Alaska – roughly 18 million board feet – occurred on Prince of Wales Island.⁷¹ Reported production from mills in Petersburg, Ketchikan and Wrangell was 38 thousand board feet, or .002% of the total production.⁷² Prior mill surveys revealed similar production levels by community.⁷³ There are very few local laborers; the timber industry itself recognizes that “[l]ogging has become a socially unacceptably business to be in.”⁷⁴ The remaining regional timber workforce is declining and there is little or no new workforce interest in logging jobs.⁷⁵

In sum, the Forest Service must seek out and analyze actual 21st century socio-economic data rather than relying on outdated assumptions about timber dependency. If the Forest Service's large timber program serves to supply non-local companies and employ non-resident workers, the exemption alternatives will not meet the stated need of the proposed action and the Forest Service can – and should – cease planning on this misguided proposal.

B. The DEIS must analyze the direct taxpayer costs associated with Roadless Rule exemption alternatives

The DEIS needs to disclose public costs associated with timber entries into inventoried roadless areas. The 2000 Roadless Area Conservation FEIS modestly observed that “the Forest Service does not necessarily recover its cost from timber sale revenues.”⁷⁶ Timber sale programs in Region 3 and Region 10 (Alaska) distinguished themselves as the worst performers by generating the largest losses per thousand board feet sold.⁷⁷ The Tongass National Forest timber sale program performs poorly in large part because of higher administrative costs and higher road construction costs.⁷⁸ Exemption alternatives may

⁶⁹ *Id.* at 3-379.

⁷⁰ 2016 TLMP FEIS at 3-547-3-689. R10-MB-769e.

⁷¹ https://www.fs.usda.gov/detail/r10/landmanagement/resourcemanagement/?cid=fsbdev2_038785

⁷² *Id.*

⁷³ *Id.*

⁷⁴ <http://raincoastdata.com/portfolio/southeast-alaska-2020-economic-plan>

⁷⁵ *Id.*

⁷⁶ Roadless Rule FEIS at 3-298, Table 3-57.

⁷⁷ *Id.* at 3-298, Table 3-57 (Region 3 and Region 10 generated taxpayer losses of \$178 and \$179 per thousand board feet, respectively, 22 times as much the only other region that operated timber sales at a deficit).

⁷⁸ *Id.* at 3-303.

exacerbate these losses because of higher costs specific to logging and road construction in inventoried roadless areas in general.⁷⁹

Tongass National Forest costs may be even worse because its roadless areas are remote and difficult to access.⁸⁰ Road construction in Alaska is at least twice as expensive as in the lower 48, with permanent road costs estimated at \$140,000/205,000 per mile and temporary roads costing \$120,000/175,000 per mile (2000 dollars/2018 dollars adjusted for inflation).⁸¹ The Forest Service shifts these costs to taxpayers – the agency spent three million dollars building roads for the Kuiu timber sale with a bid value of \$200,000 – a cost/revenue ratio of 15:1 using road costs alone.⁸² This means that exemption alternatives could add millions of dollars in taxpayer costs needed to subsidize large timber sale purchasers.⁸³ The 2000 Roadless Area Conservation FEIS identified Tongass taxpayer losses associated with logging in inventoried roadless areas as nationally exceptional:

Table 3-63. Estimated net revenue associated with reduced commodity harvest in inventoried roadless areas (1997 dollars).

Region	Reduction in commodity harvest volume from Alternative 2 (MMBF ^a)	Net revenue associated with commodity harvest volume (dollars)	Reduction in commodity harvest volume from Alternatives 3 and 4 (MMBF ^a)	Net revenue associated with commodity harvest volume (dollars)
Northern (1)	0.1	211	0.5	-14,995
Rocky Mountain (2)	3.4	-122,177	4.7	-82,741
Southwestern (3)	0.1	-39,802	0.2	-68,613
Intermountain (4)	4.0	24,092	5.7	70,519
Pacific Southwest (5)	0.5	36,842	2.7	116,898
Pacific Northwest (6)	1.3	-157,928	4.3	388,057
Southern (8)	1.6	113,911	2.6	179,017
Eastern (9)	3.0	32,402	6.5	237,903
Alaska (10)	72.8	-12,958,400	76.6	-13,634,800
Total	86.7	-12,808,755	103.9	-13,067,851

The recent Headwater Economics review of Forest Service revenues and expenditures identified an average taxpayer cost of \$771,000 per million board feet sold.⁸⁴ Federal timber sale expenditures exceed \$20 million per year in southeast Alaska.⁸⁵ Revenue returns average less than \$2 million.⁸⁶ The current Forest Plan projects nearly half a billion board

⁷⁹ *Id.*

⁸⁰ *Id.*; 2016 TLMP FEIS at 3-441.

⁸¹ Roadless Rule FEIS at 3-324.

⁸² See <https://earthjustice.org/sites/default/files/files/Timber%20Sale%20Complaint.pdf>

⁸³ Roadless Rule FEIS at 3-325, Table 3-73.

⁸⁴ See https://headwaterseconomics.org/wp-content/uploads/Tongass_Report.pdf

⁸⁵ *Id.*

⁸⁶ *Id.* The report also notes that, in contrast, recreation fee receipts average over \$3 million annually, exceeding the allocated budget for that resource, which shares \$4.2 million in allocated funds with Wilderness and Heritage resource programs.

feet in Tongass timber removals over the next decade.⁸⁷ If fully implemented at current costs, the plan could generate a taxpayer loss exceeding a third of a billion dollars.

It is inexplicable why the State of Alaska and Forest Service would add to these staggering losses – particularly in light of the low levels of local employment and processing in southeast Alaska communities. The Forest Service has previously recognized that the Roadless Rule was a fiscally responsible regulation because budget constraints allowed for effective management of only a small portion of the agency’s road system.⁸⁸ It makes little sense to build new roads, particularly in inventoried roadless areas, when the agency historically has had a huge backlog in unfunded, deferred road maintenance costs.⁸⁹ The Roadless Rule provides the greatest reduction of future maintenance costs for roads, planning costs, overall timber program costs, and other administrative costs.⁹⁰ Even when timber sale purchasers do pay for roads, the Forest Service still retains long-term maintenance responsibilities.⁹¹

C. Diverting taxpayer funds to wasteful timber entries in inventoried roadless will include significant opportunity costs for the region

The DEIS needs to analyze opportunity costs for non-timber resource values associated with diverting public funds to large timber sale purchasers and away from the regional economic sectors that provide economic benefits to southeast Alaska communities. The Forest Service neglects the visitor products economy, impeding the region from fully taking advantage of market demand trends.⁹² Recreation projects depend on the availability of internal or external funding and staff resources as needed for permitting and implementation and maintenance.

The DEIS should thus include a review of the recreation budget and history of recreation project implementation and costs and disclose that exemption alternatives may cause further deterioration of the agency’s ability to manage and support market-based economies. The Forest Service’s most recent annual monitoring reports that are available online (2012-2014) show little funding for recreation, particularly in comparison to funding for forest products, road construction, and habitat treatments related to damage from previous timber entries.⁹³ The Forest Service allocated \$79.4 million in funds for timber sales, timber sale road construction, and post-timber sale treatments from 2012 through 2014.⁹⁴ Allocated funds for recreation, heritage and wilderness programs combined amounted to \$10.8 million for the same time period.⁹⁵ If recreation must share limited funding with other resources, there is very little recreation funding for the entire Tongass

⁸⁷ 2016 TLMP FEIS at 3-493, Table 3.22-9.

⁸⁸ Roadless Rule FEIS at 1-15.

⁸⁹ *Id.* at 1-5.

⁹⁰ *Id.* at 2-36.

⁹¹ Roadless Rule FEIS at 3-22.

⁹² See Natural Resource Economics. 2016. Socio-economic comments on loggings costs. In: 2016 Tongass Land and Resource Management Plan planning record folder #769_02_000084; http://www.jedc.org/sites/default/files/Policy_letter%20sign%20on_5_25_2017.pdf ; https://headwaterseconomics.org/wp-content/uploads/Tongass_Report.pdf.

⁹³ See <https://www.fs.usda.gov/detail/tongass/landmanagement/planning/?cid=stelprdb5368225> .

⁹⁴ *Id.*

⁹⁵ *Id.*

National Forest. The annual trail maintenance and construction budget slightly exceeds \$100,000 per ranger district.⁹⁶

The annual monitoring reports identified a loss of capacity and decline in outputs across many program areas, an increased dependence on non-appropriated funds, and anticipated the removal and or decommissioning of recreation facilities and trails over time due to concerns about deferred maintenance.⁹⁷ This decline is consistent with the stated intent of Alaska Region Forest Service leaders to continue cutting the recreation budget despite increased demand for recreation resources.⁹⁸

III. Inventoried Roadless Areas provide intact habitat and refugia for fish and wildlife

The Boat Company has provided guided saltwater and freshwater sport fishing opportunities in southeast Alaska for nearly four decades. Salmon returns for several species throughout southeast Alaska were exceptionally poor in 2018. Aquatic systems within inventoried roadless areas may be critical to the recovery of diminished southeast Alaska salmon populations because they “function as biological strongholds for many fish species.”⁹⁹ The 2000 Roadless Area Conservation FEIS recognized that throughout the Pacific Northwest, excessive logging and road construction in aquatic systems caused a “broad decline of species such as salmon ... and other aquatic species that depend on habitat in NFS lands.”¹⁰⁰ Road construction and timber entries into inventoried roadless areas thus also adversely impact fishing economies.¹⁰¹

Allowing timber removals and roads would present unacceptable risks to fish at a time of significant vulnerability to habitat loss given the low population levels of many stocks. Indeed, a major purpose of the Roadless Rule was to address adverse impacts to fish caused by logging and road construction. The Forest Service identified numerous adverse impacts: increased sediment loads, modified stream flows, habitat fragmentation and loss of connectivity, degraded water quality, increased stream temperatures, fish passage barriers, loss of genetic fitness, loss of spawning and rearing habitat and increased vulnerability to catastrophic events.¹⁰² The science relevant to logging and road construction in salmon habitat is simple: low road densities = healthier fish populations and high road densities have negative effects on aquatic ecosystems and reduce fish populations.¹⁰³

The State of Alaska and Forest Service’s proposed Tongass exemption is reckless given current vulnerabilities for southeast Alaska salmon populations and the importance of southeast Alaska’s commercial, sport and subsistence salmon fisheries. The DEIS should review current salmon fishery harvest statistics, salmon population trends and regional reliance on the salmon economy.

Finally, The Boat Company is also a charitable organization and has been an advocate for southeast Alaska’s wildlife for nearly forty years. The 2000 Roadless Area Conservation FEIS recognized that inventoried roadless areas provide important habitat to species that are

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ See https://headwaterseconomics.org/wp-content/uploads/Tongass_Report.pdf.

⁹⁹ Roadless Rule FEIS at 1-1.

¹⁰⁰ *Id.* at 1-1; 3-285.

¹⁰¹ *Id.* at 3-285.

¹⁰² *Id.* at 3-164-166.

¹⁰³ *Id.* at 3-164-168.

sensitive to disturbance, such as black bears or other large mammals that avoid roads.¹⁰⁴ The Boat Company has a particular interest in the region's wildlife resource and particularly its charismatic megafauna. The wildlife resource also generates significant value, and inventoried roadless areas will be critical to maintaining wildlife for viewing and consumptive uses. Ongoing implementation of the 2016 Forest Plan will transition remaining old-growth habitat in the timber base to second growth forests that provide lower quality or even inhospitable habitat for wildlife. As shown in the following table, Alaska's wildlife has tremendous economic value for both passive and consumptive uses, and inventoried roadless areas must remain intact to prevent further losses of that asset.

Table 3. Economic Value of Hunting and Wildlife-Viewing Trips for Residents and Visitors in Alaska in 2011

	Number of Trips	Trip Expenditures		Net Economic Benefit		Sum = Gross Economic Value	
		Total (Millions)	Average per Trip	Total (Millions)	Average per Trip	Total (Millions)	Average per Trip
Residents (Total)	7,042,000	\$7,764	\$1,102	\$2,066	\$293	\$9,830	\$1,396
Hunters	1,052,000	\$1,345	\$1,279	\$461	\$438	\$1,806	\$1,717
Wildlife Viewers	5,991,000	\$6,419	\$1,071	\$1,605	\$268	\$8,024	\$1,339
Visitors (Total)	985,000	\$6,232	\$6,323	\$844	\$857	\$7,076	\$7,180
Hunters	15,000	\$158	\$10,324	\$12	\$765	\$169	\$11,089
Wildlife Viewers	970,000	\$6,074	\$6,260	\$833	\$858	\$6,906	\$7,119
Hunting (Total)	1,067,000	\$1,503	\$1,409	\$473	\$443	\$1,976	\$1,852
Wildlife Viewing (Total)	6,961,000	\$12,492	\$1,795	\$2,438	\$350	\$14,930	\$2,145
Total	8,028,000	\$13,995	\$1,743	\$2,911	\$363	\$16,906	\$2,106

Source: ECONorthwest. 2014.

IV. Conclusion

For the above reasons, the Forest Service should cease planning on this expensive, misguided proposal.

Sincerely,



Hunter McIntosh, President
The Boat Company

¹⁰⁴ *Id.* at 3-144.

EXHIBIT 14

Letter of Capt. D. Blanchard, Owner & CEO, UnCruise Adventures to S. Perdue, USDA
Secretary (Oct. 15, 2018)



October 15, 2018

Dear Secretary Purdue,

Cc: Governor Bill Walker, Forest Supervisor Earl Stewart

On behalf UnCruise Adventures, thank you for the opportunity to present these comments to the Notice of Intent to Prepare an Environmental Impact Statement (EIS) for an Alaska-Specific Roadless Area Conservation Rule. We support Roadless Rule protections for the Tongass National Forest. The preferred alternative should reflect the value of roadless areas to the visitor economy and ensure that our industry can continue to grow responsibly.

UnCruise Adventures

UnCruise Adventures (UnCruise) is the leading US flagged adventure cruise company in Southeast Alaska. We offer cruise experiences throughout the Americas, with our birth and heavy focus in Southeast Alaska. UnCruise, founded 22 years ago, is a wholly owned subsidiary of InnerSea Discoveries Alaska, Incorporated, owned and incorporated in Juneau with offices in Juneau and Seattle. UnCruise currently employs 450 people 370 of which are ship-based crew out of Juneau. Roughly 55% of our shipboard crew work year-round. In Alaska, UnCruise operates seven small ships (and potentially an 8th ship in 2021) with guest capacity for each ranging from 22-90. The company also operates extensive land tour products in South Central and the Interior and will be expanding to water borne activity to Prince William Sound in 2021.

UnCruise's Alaska tours are focused on providing our guests with unique, up-close nature experiences in pristine areas. In a typical week, we begin and end in Southeast Alaska communities. Our guests stay in hotels, dine in local restaurants, and visit other local businesses. Typically, each vessel makes one village or small-town port call a week; the rest of time is spent exploring remote areas of the Tongass.¹

The tourism economy continues to grow

Our business is part of the largest private sector growth industry in the region. Current economic data shows that the visitor products industry is Southeast Alaska's strongest and growing economic sector, with consistent annual increases in industry employment and earnings. Southeast Conference's 2017 annual economic report identifies the visitor products industry as the region's top private sector industry in terms of both jobs and wages.² The report notes that "tourism is booming" and identified 2017 as a record year for cruise and air passengers, along with jobs and spending. The boom reflects the

¹ State of Alaska, 2016. Small Cruise Market; see also <https://www.uncruise.com/destinations/alaskacruises/alaska-experience-guide> (showing representative cruise routes and destinations).

² Raincoast Data, 2017. "Southeast Alaska by the Numbers." Southeast Conference. <http://www.raincoastdata.com/portfolio/southeast-alaska-numbers-2017>

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growing popularity of Alaska and particularly Southeast Alaska which hosts two-thirds of all state visitors, making it the most visited region of the state. Forest Service data identifies the outfitter/guide industry as a significant part of this growth trend. The total number of guided clients in the Tongass National Forest is increasing at a high rate—from 533,388 clients during the recession in 2011 to 624,667 clients in 2015—a 15 percent increase³. The primary activities sought by the guided public are remote outdoor hiking and wildlife viewing opportunities such as the experiences provided by these companies.⁴ My company is part of the small cruise vessel fleet, a diverse group of overnight commercial passenger vessels including yachts and smaller motor vessels that carry between 6 and 250 passengers. Passenger capacity in Southeast Alaska alone increased to over 16,200 passengers in 2015, up from a statewide passenger capacity of 8,800 passengers in 2011. Twenty-four small cruise vessels carrying more than 20 passengers each operated in southeast Alaska in 2015. Since then, four companies have added five more vessels and considerable additional passenger capacity to the Southeast Alaska fleet.⁵

Roadless areas are essential and provide unique opportunities for tourism industry and communities.

Undeveloped, unroaded, pristine places are an essential part of Southeast Alaska’s globally-recognized tourism brand. Demand for recreation and tourism in the Tongass National Forest is increasing.⁶ Roadless areas protect recreation resources that are scarce both nationally and worldwide. When Roadless Rule was promulgated, it was clear that the national and even global supply of remote recreation experiences was diminishing. Roadless Rule enhances Southeast Alaska's supply of a resource which provides a massive comparative advantage over other regions. The gateway communities adjacent to the Tongass have begun to take advantage of increased demand. We encourage the Forest Service to analyze the commercial benefits of unroaded, wild places and the opportunities these places can support in the future. According to a draft report by the Alaska Division of Economic Development, permission to access public lands and crowding are challenges to growth in the market.⁷ Roadless Development LUDs are particularly valuable to companies such as mine as these

³ Shoreline II FEIS at 3-12, Table 3-5.

⁴ See State of Alaska, 2016 at 1

⁵ See <http://uncruise-alaska.com/ships/s-s-legacy/>

<https://www.expeditions.com/why-us/our-fleet/national-geographic-quest/overview/>

<https://www.alaskandreamcruises.com/fleet/chichagof-dream>

<https://www.americancruiselines.com/cruises/alaska-and-pacific-northwest/southeast-alaska-cruise>

⁶ USDA, 2017. Shoreline II FEIS. U.S. Forest Service.

⁷ State of Alaska, 2016. “Trends and Opportunities in Alaska’s Small Cruise Vessel Market.” Alaska Division of Economic Development Draft Report. January 2016.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd530432.pdf

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areas allow larger groups ashore and in unroaded, pristine forest, while preserving opportunities for locals and smaller groups in wilderness areas.

The growing tourism industry is creating economic growth in small communities. Our itineraries typically include a visit to a village or small town. Each small community has the chance to develop their own visitor experience that will increase the diversity of products offered in our industry. We are excited to partner with those who support community-led visitor sector growth opportunities.

The geography of tourism use depends on roadless areas

UnCruise Adventures is concerned about maintaining the recreation values of the areas we actively use. These values include solitude from other users, undeveloped scenery, intact ecosystems, healthy fish and wildlife, and permitted access and trails.

Our permit reporting to the Forest Service over the past five years is an accurate reflection of the places we take people into the forest but does not indicate waterborne and below high-water activities that take place daily from our small ships. There are many places where we conduct water-based activities, such as skiff tours, kayaking, snorkeling, paddle boarding, beach walks and wildlife viewing without going into the National Forest, however these activities still rely on a scenic, undeveloped forest. We hope to work with the Forest Service to help collect this information as this process continues. By focusing in on specific places, the map tool is insufficient and ignores the broader experience of the entire forest. We believe the Forest Service must set a goal of mapping all areas currently in use by small ships, charter boats and yachts, professional hunters, bear and wildlife watching companies, flightseeing organizations, and the greater outdoor recreation industry. These areas, their view sheds and watersheds should continue to allow roadless economic activities.

The tourism industry has taken proactive steps to address crowding. UnCruise has maintained the "intentions list," an email-based list serv that allows operators to coordinate itineraries and avoid conflicting use. Last spring, UnCruise participated in a collaborative effort with the Forest Service and big game guides to coordinate conflicting uses during the spring bear hunt.⁸ Expanding roadbuilding activities and condensing recreation opportunities may harm these commendable Forest Service efforts.

The abundant and iconic fish and wildlife of Alaska are important to our business. The Forest Service should continue to protect the Tongass 77 and TNC Audubon Conservation Areas as premiere fish and wildlife habitat that can be accessible to commercially guided groups. We encourage the Forest Service to follow the Tongass Advisory Committee recommendations.

Tourism activities depend on roadless areas and other conservation designations

⁸ USDA 2018. "Best Management Practices Agreement Big Game Hunting and Small Cruise Vessel Guides." U.S. Forest Service, April 5, 2018



Roadless areas are defined by their opportunities for “ample recreation.” They are a core part of our “wild infrastructure” and should continue to offer outstanding locations for remote-setting nature tours. More roads will not create an obvious benefit to our sector. We have abandoned places, such as the Cleveland Peninsula, due to timber activities that conflicted with our use. We cannot provide our clients with the Alaskan experience they desire without viewsheds and undeveloped old growth forests. Forest Service budget priorities and staff allocation are the primary barriers to our access, not a lack of roads. Forest Service should identify uses already occurring in these places. Recreation, hunting, sport fishing, and tourism should continue to be prioritized.

We support diverse and sustainable economic development in Southeast Alaska. We are encouraged that exemptions to the Roadless Rule have been granted allowing transmission lines, mine exploration, and other projects to progress. We support a balanced approach to developing our resources with the recognition that undeveloped wild places and wild salmon are also valuable resources.

The State of Alaska’s public process is not representing the views of Alaskans.

The State of Alaska seems more concerned with overturning the Roadless Rule than creating a durable rule that benefits Alaskans and all Americans with an interest in this National Forest. Tourism representation has been filled by a non-industry person, even though people from the industry applied. Representation was limited to a “catch-all/and others” position rather than recognized as the region’s primary economic driver. To have the State Forester running the public process while also holding one of the citizen seats and asserting that the state’s only position is a full exemption should call into question the integrity of the state’s process.

We look forward to working with the Forest Service throughout this process.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Blanchard", written over a white background.

Captain Dan Blanchard

Owner & CEO, UnCruise Adventures

danb@uncruise.com, 206-902-8123

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EXHIBIT 15

Letter of K. McCarthy, Master Guide, Coastal Alaska (Oct. 14, 2018)

Date submitted (Alaskan Standard Time): 10/14/2018 8:28:08 AM

First name: Keegan

Last name: McCarthy

Organization:

Title:

Official Representative/Member Indicator:

Address1: 9803 Nine Mile Creek Rd

Address2:

City: Juneau

State: AK

Province/Region:

Zip/Postal Code: 99801

Country: United States

Email: akpointer@hotmail.com

Phone: 90772333006

Comments:

To Whom it May Concern,

My name is Keegan McCarthy, I am the owner and operator of three businesses-

-Coastal Alaska Adventures, a big game hunting guiding operation permitted in the Tongass

-Custom Alaska Cruises, a small ship cruise operation conducting sightseeing/fishing charters

-Fishing Vessel Artaios, a 58 foot seiner/crab vessel operating in SE Alaska

All of my businesses rely entirely on the Tongass National Forest and the renewable resources it provides. My companies provide 15-20 full and part time jobs to residents of small communities in SE Alaska including Petersburg, Wrangell, Sitka and Tenakee. These are long term jobs for Alaskan's; jobs that provide for their families and money spent in these communities.

Annually we spend large sums of money in each of these small communities, from taxes and port fees to money spent in shipyards, grocery stores and more. These are dollars that flow through all of SE on an annual basis and will continue to do so for years to come assuming I am able to continue and grow my business.

I have upwards of \$5m invested in my business. Money invested assuming I would have a realistic opportunity to continue to run a business that operates in pristine environments. My clients do not come to see clear cuts and roads. They do not like to hike old logging roads, they can all notice the difference as we pass the devastated areas on Kuiu and Kupreanof where logging has occurred. My hunters, the most conservative pro development group in the world all come to see the last remaining virgin forest in America and comment on it's beauty and are thankful they have a place left to hunt. To risk destroying this directly puts businesses like mine in jeopardy, leaving me no way to pay my debts and provide for my family and my employees.

The Roadless Rule allowed entrepreneurs such as myself to feel comfortable investing large sums of money and creating businesses, given the security it provided that we would have places to operate. Rescinding this is like pulling the rug out from underneath local businesses. It is cause for great concern to me that my business may be in jeopardy.

Why would this put my business in jeopardy? We rely primarily on intact watersheds. Let's look at my guiding business, we generate \$1m in annual gross sales from bear hunts alone. Bears are heavily dependent on salmon and salmon streams. They are also extremely sensitive to environmental impacts that can negatively impact their normal behaviors. Run some roads through the heart of my guide areas, clear cut the watersheds and you will displace the bears in the area. After a year or two of me having unsuccessful hunts word starts to get out and business falters. What will replace this part of my income? How will I explain this to my employees let alone the bank?

The same holds true for my other main business, summer charters. We cater to guests who want to see pristine untouched environments. They can hike on logging roads pretty much anywhere else in the US, they come to see untouched rainforest. There is NO added value to the Tongass in terms of tourism to have more

roads, and definitely not clear cuts. We have a place that millions of people come each year to view wildlife, catch salmon and enjoy one of the last places left that has not been logged. Tourism currently provides one of the strongest sources of income and jobs in SE Alaska, creating more jobs than anything else.

I also own a commercial fishing operation, which should go without saying relies on healthy salmon runs. We have an excellent resource, a renewable resource that has provided for generations and can continue to do so well into the future if we protect it. Why would we risk any damage to the fisheries? The backbone of the SE economy? We have spent the last 20-30 years recovering our salmon runs in many areas due to watershed destruction, now we have healthy runs and an amazing resource. Let's not roll back the clock and take the chances of impacting these. Again, many of us have large sums of money involved in this and to risk that now for a small, quick buck for outside companies makes no sense.

I hope you will take this into consideration. There are other strong economic drivers in SE Alaska that utilize the Tongass, that have invested heavily in infrastructure based on the ability to operate in Roadless areas. The timber industry had it's place and time (I know, my father was a logger). That time is not now and to put at risk the economic well being of others in the area for a non-renewable industry dominated by out of state interest is not fair to those of us that live and work in the Tongass.

Keegan McCarthy
Master Guide
Coastal Alaska Adventures
www.wehuntak.com
www.sikumi.com

EXHIBIT 16

Letter of R. Burke, Bluewater Adventures (Sep. 10, 2018)

Date submitted (Alaskan Standard Time): 9/10/2018 1:44:10 PM

First name: Randy

Last name: Burke

Organization: Bluewater Adventures

Title: President

Official Representative/Member Indicator:

Address1: 3-252. E. 1st St.

Address2:

City: North Vancouver

State:

Province/Region: BC

Zip/Postal Code: V7L 1B3

Country: Canada

Email: Randy@bluewateradventures.ca

Phone: 604-980-3800

Comments:

Bluewater Adventures has operated nature cruises in Southeast Alaska since 1993. Wilderness and wildlife values are the specific highlights that make our itineraries popular. Guests come from around the world and spend considerable dollars in the local economy. Bear viewing is a major draw to local tourism and only going to increase. Brown bears require large areas of intact wilderness habitat to survive. Thus, our interest as US Forest Service permit holders in the suggestion the Roadless Rule need no longer apply. Since 2001 the Roadless Rule has helped protect intact wilderness areas and prevented many uneconomical logging sales from costing tax payers untold thousands for road building, all while creating a small number of temporary jobs. This kind of short term thinking is what will ultimately cost Alaska tourism jobs when view scapes are affected and salmon runs decline. The Roadless Rule does not prevent building of roads for purposes other than logging and has provided commonsense limitations to unneeded economic support for a declining logging industry.

It is vitally important the Forest Service keep this review / EIS process transparent and open. The agency should make available written notes of meetings between the State and Forest Service so that the tourism industry and public can monitor and trust the process.

Best Regards,

Randy Burke

President

Bluewater Adventures

EXHIBIT 17

Letter of G. Schlachter, Expedition Broker (Oct. 15, 2018)

Date submitted (Alaskan Standard Time): 10/15/2018 11:51:24 AM

First name: Greg

Last name: Schlachter

Organization: Expedition Broker

Title: Owner

Official Representative/Member Indicator:

Address1: PO Box 1567

Address2: 299 Cathedral View Drive

City: Haines

State: AK

Province/Region:

Zip/Postal Code: 99827

Country: United States

Email: greg@expeditionbroker.com

Phone: 9072090816

Comments:

Roadless areas within the Tongass National Forest are critically important to the entire economy of Southeast Alaska, along with my two businesses. That is why I support conserving roadless areas in the Tongass National Forest, especially the Tongass 77 areas. I have the good fortune to guide fly fishermen in the Spring/Summer throughout the Tongass and have spent numerous months guiding anglers in areas such as Rocky Pass, Port Camden, Sandborn Canal, Farragut Bay, Thomas Bay, Rusty River and many more locations of critical value for salmon and steelhead habitat. I also work as a broker to over 40 yachts and small ships that cruise through the Tongass bringing millions of dollars to the regional economy annually.

Conserving roadless areas within the Tongass is basic economics. Figures provided by Rain Coast Data at Southeast Conference in Ketchikan in September 2018 illustrates \$250,000,000 in earnings annually from commercial fishing and \$250,000,000 in earnings from the tourism industry in Southeast Alaska. We need to retain conservation measures, including Tongass 77, as these watersheds support our sport and commercial fisheries and tourism industries that make up ¼ of Southeast Alaska's jobs and contribute over \$2 billion to our regional economy annually.

To put these economic drivers at risk for a heavily subsidized timber industry that creates just a fraction of these earnings at \$18,700,000 and less than 1% of the region's employment is beyond comprehension.

There is a forest plan that was just recently completed. All parties & communities were at the table for collaboration and negotiation including timber, tourism and fisheries. Why waste the time and money to rehash this issue again? Why do we keep placing our region's primary economic drivers on the chopping block?

Conserve the roadless areas within the Tongass National Forest and protect our region's economy for future generations.

Sincerely,

Greg Schlachter

Haines, Alaska

Owner, Expedition Broker & Fly Guides

EXHIBIT 18

Letter of B. Janes, Gastineau Guiding Co. (Oct. 15, 2018)

Date submitted (Alaskan Standard Time): 10/15/2018 11:44:36 PM

First name: Bob

Last name: Janes

Organization: Gastineau Guiding Company

Title: President

Official Representative/Member Indicator:

Address1:

Address2:

City:

State:

Province/Region:

Zip/Postal Code:

Country: United States

Email: Bob@gguiding.com

Phone:

Comments:

October 15, 2018

Dear Tongass Roadless Rule Team,

As a tour operator at the Mendenhall Glacier Recreation Area for the past 23 years, my company, Gastineau Guiding, has provided a short connection to Tongass trails, vistas, and wildlife to nearly 500,000 visitors.

Nearly all of these were cruise ship passengers, in Juneau for only a few short hours. While they came from different parts of the globe, they expressed one thing in common: they came to Alaska to experience wilderness and wildlife.

"What was wilderness to them" we asked. "A place untouched, undeveloped, and in its natural state", they answered.

Roadless areas in Alaska provide this kind of emotional experience, even if it is only seen by many from the deck of a cruise ship.

To reform the Roadless Rule at this time would be to enter with uncertainty a new relationship with the very heart and soul of the experience our visitors crave.

Everyone is aware of the revenue associated with tourism. What we may not always think about is the immense value, both economic and social, of a place which could remain "untouched " for generations to come.

Please, consider these values, both economic and personal, when addressing the Roadless Rule. Consider developing more roads in the areas surrounding existing communities, so that the people living there can benefit from National Forest resources. Refrain from developing more roads in untouched coastal and mountain areas, for these provide timeless benefits that we will be able to offer visitors and our children for generations to come.

Sincerely,

Bob Janes, President

Gastineau Guiding Company

Juneau, Alaska

EXHIBIT 19

Letter of A. Decker, Glacier Guides, Inc. (Oct. 15, 2018)

Date submitted (Alaskan Standard Time): 10/15/2018 12:28:21 PM

First name: Alisha

Last name: Decker

Organization: Glacier Guides, Inc.

Title: President

Official Representative/Member Indicator:

Address1: PO Box 66

Address2:

City: Gustavus

State: AK

Province/Region: AK

Zip/Postal Code: 99826

Country: United States

Email: decker@glacierguidesinc.com

Phone: 9073212180

Comments:

USFS Roadless Rule

Dear USFS;

My passion for the Tongass runs deep, and our family operation was the first permitted Outfitter/Guide Operation on the Tongass. I am the second generation owner of Glacier Guides, Inc. My name is Alisha "Mutts" Rosenbruch-Decker, and I am a Conservationist. I am one of two Active Female Master Guides in the State of Alaska. I firmly believe in "Sustainable Use Management" - sound management of not only fish and wildlife resources, but also the habitat that fish and wildlife rely on to survive, thrive, and produce! We run a Yacht-based Hunting and Fishing Adventure company. With our tenure of operation in Alaska of over 47 years I can speak of the past and present and offer an outlook to the future.

Operating in the 70s, 80s, and 90s on Kuiu and other Islands of Alaska was at times a little bit like a wild west show. The impacts of logging operations and activity on wildlife was profound during the peak of the logging. We would find Bears with shotgun pellets in their face, Bears with a blown out eye or Bears with a broken jaw from a shotgun blast. A .22 round under the skin where someone took a shot at it for fun. Bears were found dead in the woods after being ran down and hit by the logging truck. Logging camps on Baranof and Chichagof Island would compete to see how many Brown Bear each camp could kill in a season! This nearly shut Brown Bear hunting down in Southeast Alaska. Kuiu Island was in it's hay day, the Island hosted lots of Black Bears, Sitka Black Tail Deer and lots of fish. Fast forward to 2001 when a graduate student out of the University of Reno did a population study because of population concerns over Black Bears on Kuiu following the heavy logging. It was determined at that time to have a population of roughly 7 black bears per square mile. Alaska Department of Fish and Game establish a harvest goal of 120 bears a year for Kuiu Island. Today, Alaska Department of Fish and Game have reduced the harvest goal to 80 Black Bears on the Island. Kuiu Island harvest levels are continuing to decline. As an Outfitter on National Forest lands for Black Bears, we have self-reduced our operation levels out of concern over sustainable bear harvest. Other Outfitters operating on the Island also have population concerns and have also reduced their operation levels as well. Kuiu Island is 640 sq miles with only a few homes on it. One might ask, "What has happened?" Loss of denning sites, loss of habitat, older clearcuts that have grown up and have choked out understory and berry brush, river and stream degradation from the logging have reduced the salmon runs, and road construction has allowed for an expanded wolf population to name a few issues that have greatly effected productivity on the Island. Wolves prey on adult bears, bear cubs, and sitka black tail deer. The network of logging roads allow wolf to travel the island quicker looking for prey as they cross the road creating an unbalance. Deer populations are severely depressed and sightings are few.. Therefore, to begin again to log remaining Old Growth stands and create again the chaos of human activity associated with that large-scale logging is a death nell for a place that is simply not replaceable.

Today we have a growing visitor industry on the Tongass. Our Capital City of Juneau is looking to have 1.3 million visitors by cruise ship alone by 2020! Small businesses are growing in the region. Owners of different types of operations on the Tongass are all trying to use the Forest at the same time and in many different ways. Putting the Logging industry ahead of these multitude of diverse operations is not the thing we should be doing! The USFS won't build public trails or develop Large Group Areas for the visitors, but on the other hand will use tax payer funds to build a road for a logging company! Something is wrong with this

thinking. We hear the cry from the timber industry for more trees to cut. In the last few years the USFS performed all preparations to lay out a sale on North Kuiu. USFS spent over 1.4 MILLION DOLLARS laying out the timber sale, fixing roads, and replacing bridges. Then the sale was approved for 100% export not even requiring it to be processed in Alaska; just to potentially entice a willing bidder. Opening bid was set at a little over One Hundred Thousand Dollars. NOT ONE timber company even bid on this timber! How is this fair to the American people? How is this fair to Alaskans? How is this fair to other businesses in the area?

What do we, as Alaskans, get from opening up the Roadless Rule for logging our forest?

- Reduced wildlife to support and feed our families.

- Reduced Salmon runs, sediment in streams and rivers, intense flooding, increased stream temperatures, and resultant reduced productivity of salmon runs. (Over 25% of the world's salmon come from the Tongass.)

- Logging Roads built only for timber companies (with Taxpayer Funds) are closed and not maintained for public use.

- After logging an area, USFS issues thinning contracts to thin cut stands, costing the tax payer up to \$4,000 per acre at 25 and 50 year intervals. To properly manage clear cuts would cost BILLIONS to the US taxpayer.

- It can take up to 80 years to regrow a 24 inch tree in Southeast Alaska. 300+ years for it to return to conditions similar to Old Growth.

- Timber company operations on Kuiu and Kupreanof Islands alone will disrupt an \$800,000 annual Black Bear Hunting industry alone! Many small outfitter operations would be put out of business, consequently hurting small communities like Petersburg, Kake, and Wrangell.

Why is it important to leave the Roadless Rule intact?

It is estimated to cost taxpayers roughly \$1 million a mile to build the roads for the timber industry. Small businesses across Southeast Alaska are growing and building roads and the resulting activities put companies on top of each other trying to share the Forest with the visiting public. The future of tourism and Sustainable Use Management rely on the productivity and diversity supported by intact and healthy forest ecosystems. The US Forest Service could have a wider and more favorable influence on the productivity and livelihoods of residents of the myriad of small towns and villages of Southeast Alaska by enhancing recreational opportunities for locals and the visiting public, such as trails, development of Large Group Sites, and maintenance of existing infrastructure.

If logging is to occur, the amount of Old Growth Forest cut should be severely limited, to shift focus of cutting onto Second-Growth areas already cut. Furthermore, lumber harvested in Southeast should be finished in Southeast, not simply cut then shipped out of the region and overseas. Timber and mining companies MUST build their own road and facilities and open those to the public and maintain them not burdening the American taxpayer.

We ask as a long-tenured USFS permitted operation to please keep the Roadless Area and shift the focus to second-generation cuts on the Tongass National Forest.

Sincerely,

Alisha "Mutts" Rosenbruch-Decker
President, Glacier Guides, Inc.
Glacier Bay, Alaska

EXHIBIT 20

Letter of C. Smith, Northwest Navigation (Oct. 12, 2018)

Date submitted (Alaskan Standard Time): 10/12/2018 9:03:05 AM

First name: Christine

Last name: Smith

Organization: Northwest Navigation

Title: VP

Official Representative/Member Indicator:

Address1: 2504 Henry St

Address2:

City: Bellingham

State:

Province/Region: WA

Zip/Postal Code: 98225

Country: United States

Email: christine@northwestnavigation.com

Phone: 3602018184

Comments:

Dear Secretary Purdue, Governor Walker and members of the State Advisory Committee;

I operate a small cruise ship tour business in southeast Alaska and I feel that maintaining the Roadless Rule will continue to provide our guests with some of the most beautiful anchorages and wilderness experiences anywhere in the world, as well as increase income through tourism. I am asking that the agency look at special use permits that are ongoing, as well as, past permits to help understand how the Roadless Rule helps my business and other marine-based businesses like mine grow and expand. It is by maintaining the Roadless Rule protections that allow us to take our guests to pristine places, which is the predominant reason people choose to visit Alaska.

In the thirteen years that we have operated, we have been concerned that the Forest Service has continued to shrink budgeting for tourism, while has continued to focus on road building. By placing more emphasis on tourism, the Forest Service and southeast Alaska's tourism industry will continue to generate income and jobs.

People choose to come to Alaska because of its world-class scenery and wildlife, as well as for the ability to find solitude. As a tour operator, I see increased road building as a detriment to growth in tourism to Alaska.

EXHIBIT 21

Letter of L. Behnken, Alaska Longline Fishermen's Ass'n to C. French, U.S. Forest Service
(Oct. 14, 2018)



Alaska Longline

FISHERMEN'S ASSOCIATION

Post Office Box 1229 / Sitka, Alaska 99835 907.747.3400 / FAX 907.747.3462

October 14, 2018

Acting Deputy Chief Chris French
c/o Alaska Roadless Rule
USDA Forest Service, Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, Alaska 99802-1628
Submitted electronically at: <https://www.fs.usda.gov/project/?project=54511>

Attn: Roadless Area Conservation; National Forest System Lands in Alaska

Dear Mr. French:

The Alaska Longline Fishermen's Association (ALFA) is a southeast Alaska-based commercial fishing organization that represents and advocates for community-based, small commercial fishing businesses. ALFA requests that you cease planning on the proposal to exempt or partially exempt the Tongass National Forest from the 2001 Roadless Area Conservation Rule ("Roadless Rule"). Inventoried roadless areas provide essential and intact spawning, rearing and migratory habitat for salmon – southeast Alaska's most valuable crop.

ALFA represents commercial fishing vessel owners, deckhands and business members from nearly every community in southeast Alaska who participate in, or otherwise support and benefit from the commercial fishing economy. ALFA has received national and statewide recognition for its work to rebuild fish stocks, improve fishery monitoring and to protect fish habitat and ensure the socio-economic viability of coastal communities. Its members participate in halibut and sablefish longline fisheries and in all southeast Alaska commercial salmon fisheries – seine, gillnet and troll.

I am thus writing to express concern about plans to allow timber industry activities and road construction into inventoried roadless areas. Recent declines in salmon fishery outputs have resulted in serious risks to the economic viability of commercial fishermen throughout southeast Alaska. Any development that threatens the recovery of these fish – or worse, further diminishes the population – risks long-term adverse impacts on southeast Alaska fisheries. Salmon populations have diminished throughout the species' range because of high levels of development in freshwater habitat throughout the west Pacific coast of North America.¹ There are numerous scientific studies linking those declines in salmon productivity to logging road density and large scale clearcutting. Because southeast Alaska supports one of the largest remaining sustainable

¹ Bryant, M.D. 2008. Global climate change and potential effects on Pacific salmonids in freshwater ecosystems of southeast Alaska. Available at: https://www.srs.fs.fed.us/pubs/ja/ja_bryanto05.pdf.

fisheries, it is critical to maintain the remaining intact habitat in order to provide stability to the regional economy.

As explained in the following paragraphs, I request that the DEIS for this proposal analyze: (1) Southeast Alaska community dependence on salmon fisheries; (2) current salmon population escapements and harvest trends by species; (3) adverse and cumulative impacts of roads on salmon, particularly barrier culverts and (4) global climate change effects on southeast Alaska's salmon populations and the value of intact habitat as a buffer against adverse impacts.

The DEIS needs to provide a detailed analysis of the contributions of commercial fishing to southeast Alaska's socio-economic well-being. Commercial fishing is Alaska's largest private sector employer.² There are roughly 2,700 commercial fishing permit holders and 2,400 crew members living in southeast Alaska communities.³ There are nearly 1,000 salmon troll permit holders active each year, making the troll fishery the second largest fleet in the state, second only to Bristol Bay. Alaska residents comprise well over 80% of active permit holders.⁴ Seine, gillnet and troll harvests are the largest component of a regional fishery economy that supports over 4,500 processing jobs which generate over \$50 million in wages.⁵

Seven of the top fishing ports in the entire country are within southeast Alaska, including two in the top 20: Sitka and Ketchikan.⁶ Nearly a quarter of the residents in the 29th ranked port, Petersburg, are commercial fishermen.⁷ Salmon is the most abundant and valuable seafood species for fishermen in these communities.⁸ Earnings generated by the salmon economy support every business in southeast Alaska communities as well as a significant employment in the transportation, marine, academic and government sectors.⁹ These businesses also provide substantial direct support to regional communities through landings and fisheries business taxes.¹⁰

Current salmon population trends are a significant concern. ALFA requests that the DEIS review current trends in southeast Alaska salmon production. Even year cycles of pink salmon runs have historically been much lower than odd years.¹¹ The last two cycles have yielded alarmingly low harvests. 2016 was a pink salmon fishery disaster for southeast Alaska.¹² 2018 pink salmon returns

² <http://www.ufafish.org/wp-content/uploads/2018/09/Commercial-fishing-facts-ALL-IN-ONE-2016-v.7.0-REDUX.pdf>

³ *Id.*

⁴ <https://www.cfec.state.ak.us/pstatus/14052017.htm> (see Row S15B).

⁵ <http://www.ufafish.org/wp-content/uploads/2018/09/Commercial-fishing-facts-ALL-IN-ONE-2016-v.7.0-REDUX.pdf>

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ <http://www.ufafish.org/wp-content/uploads/2015/02/4a-Alaska-Seafood-Industry-Taxes-Fees-021115-v1s.pdf>

¹¹ U.S. Forest Service. 2016. Tongass Land and Resource Management Plan Final Environmental Impact Statement at 3-106, Figure 3.6-2.

¹² See <https://gov.alaska.gov/newsroom/2017/01/federal-government-declares-fishery-disaster-for-low-pink-salmon-harvest-in-gulf-of-alaska/>

were even worse.¹³ Management measures designed to ensure pink salmon escapements have caused numerous closures of large fishing areas and large parts of historical fishing seasons. Catch rates for coho salmon were well below historical averages this year.¹⁴ There is now a sockeye population designated as a stock of concern.¹⁵

Southeast Alaska has nearly 14,000 miles of anadromous or potentially anadromous salmon habitat.¹⁶ The Nature Conservancy and Audubon Alaska’s conservation assessment identified the top regions in southeast Alaska for coho and pink salmon production as north Prince of Wales Island, Kupreanof and Mitkof Islands, and East Chichagof Island.¹⁷ These areas have also suffered habitat loss at a much greater rate than other portions of southeast Alaska.¹⁸ The DEIS should identify areas with the highest historical salmon productivity, describe ecological features that contribute to productivity, and evaluate the extent to which maintaining intact inventoried roadless areas can offset or ameliorate disproportionate levels of past and present landscape disturbances in some areas.

The 2000 Roadless Area Conservation FEIS identified numerous risks to aquatic habitat associated with timber road construction, including increased sediment, degraded water quality, habitat fragmentation, and high temperature regimes.¹⁹ ALFA requests that the DEIS provide a detailed analysis of these impacts and also discuss the serious issue of barrier culverts in southeast Alaska. The analysis should discuss the current number of blocked culverts, number of stream miles impacted, and the average number of blocked culverts addressed each year. Road construction in inventoried roadless areas is likely to add to existing habitat loss. As explained in an amicus brief filed on behalf the Pacific Coast Federation of Fishermen’s Associations, Alaska Trollers Association and numerous sportfishing groups, “[s]almon production is directly related to the amount and quality of habitat available.”²⁰ Simply put, “less habitat where fish can reproduce means fewer fish.”²¹ Conversely, repairing or removing culverts that block fish habitat can result in rapid increases to salmon populations.²² DEIS alternatives that would allow for timber entries into inventoried roadless areas should include a mitigation measure that funds culvert repair or replacement – particularly in those portions of the Tongass National Forest that have existing high road densities.

¹³ <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyfisherysalmon.bluesheet>

¹⁴ http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareasoutheast.salmon_trollsummer

¹⁵ <http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2017-2018/se/mcdonaldAP.pdf>

¹⁶ https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/2_Chapter_2.pdf.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ U.S. Forest Service. 2000. Roadless Area Conservation Final Environmental Impact Statement at 3-163.

²⁰ Brief of Amici Curiae Pacific Coast Federation of Fishermen’s Associations et al, *Washington v. U.S.*, 584 U.S. ____ (2018)(No. 17-269). Available at: https://www.supremecourt.gov/DocketPDF/17/17-269/42003/20180402170951297_Amici%20Brief%20on%20Behalf%20of%20Pacific%20Coast%20Federation%20of%20Fishermens%20Associations%20et%20al.pdf

²¹ *Id.*

²² *Id.*

Scientists expect that global climate change is likely to stress salmon populations, causing changes in migration patterns, decreased summer stream flows and high stream temperatures.²³ Late summer low stream flow and high temperature events which periodically occur in southern southeast Alaska are likely to become more common and spread to northern southeast Alaska, increasing pre-spawning mortality for pink and chum salmon.²⁴ Temperature increases in freshwater systems will adversely affect coho and sockeye salmon at various stages of their life cycle.²⁵ Storms and sea level rise will also reduce the amount of freshwater habitat available to all salmon species.²⁶ Because these and other climate related changes are not favorable for salmon, remaining intact watersheds in southeast Alaska “are important buffers to many of the effects that may be imposed by climate change.”

In sum, ALFA requests that the Forest Service maintain existing inventoried roadless areas in an unlogged and unroaded condition, and cease planning on the State of Alaska’s proposal to exempt or partially exempt the Tongass National Forest from the Roadless Rule. The impacts of losing additional spawning and rearing habitat in southeast Alaska aquatic ecosystems are substantial given current population vulnerabilities. Further declines in salmon productivity may result in prolonged periods of fishery closures, risking the viability of hundreds of Alaska resident-owned small fishing businesses, southeast Alaska salmon processors, and the communities and support businesses that rely on the salmon economy. As explained by one of ALFA’s family fishing members, “[e]very fish counts.”²⁷

Thank you,



Linda Behnken

²³ Bryant, M.D. 2008.

²⁴ *Id.*

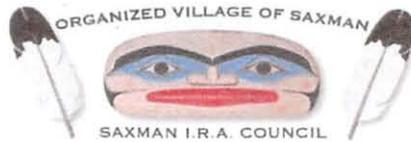
²⁵ *Id.*

²⁶ *Id.*

²⁷ Tele Aadsen, *Vanishing Boats, Lost Fishermen, and the Price of Fish*, Word Press (Mar. 12, 2012). Available at: <http://www.teleaadsen.com/vanishing-boats-lost-fishermen-and-the-price-of-fish>.

EXHIBIT 22

Organized Village of Saxman, Resolution #2018-10-223 (Oct. 11, 2018)



ROUTE 2, BOX 2 – SAXMAN, KETCHIKAN, ALASKA 99901 · FAX: (907) 247-2504 · PHONE (907) 247-2502

RESOLUTION #2018-10-223

A RESOLUTION BY THE ORGANIZED VILLAGE OF SAXMAN, SAXMAN I.R.A. COUNCIL TO AUTHORIZE TRIBAL SUPPORT FOR APPLICATION OF NATIONAL ROADLESS RULE ON THE TONGASS NATIONAL FOREST and TO AUTHORIZE STRONG SUPPORT FOR LASTING PROTECTION OF THE ROADLESS RULE.

WHEREAS, the Organized Village of Saxman (OVS) is a duly constituted federally recognized Indian Tribe organized pursuant to the authority of the United States Congress by the Indian Reorganization Act, and such legislation of June 8, 1934, whereby the Saxman I.R.A. Council is the governing body as authorized by the Organized Village of Saxman Constitution and By-laws approved on October 18, 1940 by the Secretary of Interior, and ratified on January 14, 1941; and

WHEREAS, the Organized Village of Saxman possesses all powers and responsibilities inherent in a sovereign government and has the authority to represent and act in all matters that concern the health, education, and welfare of the Native people who reside in the Village of Saxman; and

WHEREAS, the Constitution and By-Laws of OVS empower the Saxman I.R.A. Council “to aid needy members and protect the general welfare and security of the Village,” and one of the Tribe’s highest priorities is to protect customary and traditional hunting, fishing and gathering areas and uses; and

WHEREAS, protection of the inherent right to harvest and use traditional and customary foods requires careful cultural stewardship and protection of the environmental and natural resources; and

WHEREAS, the care of the lands now classified as “inventoried roadless areas” in the Tongass National Forest stretches for millennia; and

WHEREAS, these lands not only provide Alaska Native people with food, they essentially define who we are and where we come from; and

WHEREAS, inventoried roadless areas contain many sacred sites used for spiritual and religious practices and other customary uses and activities; and

WHEREAS, inventoried roadless areas conserve natural diversity, serve as a bulwark against the spread of invasive species, protect healthy watersheds ensuring clean drinking water supply, and help ensure the continued protection of indigenous fish and wildlife habitat the social, nutritional, and ecological values; and

WHEREAS, the Tongass National Forest represents one of the highest carbon stores in the world and the conservation of intact inventoried roadless areas on the Tongass is essential for maintaining America’s resilience and slowing down climate change throughout the world; and

WHEREAS, the Roadless Rule prevents the disturbance of soils and wasteful construction of damaging roads in inventoried roadless areas; and

WHEREAS, according to the State of Alaska’s own economic experts, Tongass timber is uncompetitive because of permanent and fundamental changes in global timber markets, high labor costs, distance from markets, and less expensive substitutes; and

WHEREAS, the Tongass timber industry represents less than one percent of today's jobs and earnings in Southeast Alaska; and

WHEREAS, there are over 5,000 miles of roads already crisscrossing the Tongass National Forest, fragmenting valuable wildlife habitat, threatening salmon by blocking fish passage, and serving as the primary source of sediment into fish streams; and

WHEREAS, spending millions of taxpayer dollars to build roads in inventoried Tongass roadless areas makes no economic sense, particularly given the agency's enormous road maintenance backlog; and

WHEREAS, at hearings held across Southeast Alaska in 2000 on the proposed Roadless Rule, nearly 60 percent of the Southeast Alaskans supported including the Tongass National Forest in the final roadless rule; and

WHEREAS, after the hearing held in Ketchikan during the summer of 2002, the draft supplemental environmental impact prepared to evaluate recommendations for designating additional inventoried roadless areas on the Tongass as "Wilderness", the *Ketchikan Daily News* reported that roughly 85 percent of the public who testified supported more "Wilderness";

WHEREAS, the State of Alaska petitioned the United States Department of Agriculture (USDA) to exempt Tongass inventoried roadless areas from the Roadless Rule on January 19, 2018;

WHEREAS, for all the above reasons, the State's petition severely mischaracterizes the actual extent and impacts of the Roadless Rule on Southeast Alaska; and

WHEREAS, the State's petition ignores the fact that the USDA narrowly tailored the Roadless Rule to limit only two activities in roadless areas, road construction and commercial logging; and

WHEREAS, the State of Alaska's petition ignores the Rule's established exceptions, including Federal Aid Highway projects connecting communities, access to mining claims, and logging incidental to otherwise permitted activities, including utility corridors and hydropower projects; and

WHEREAS, on August 2, 2018, the Forest Service signed a Memorandum of Understanding (MOU) with the State of Alaska to develop an Alaska-specific Roadless Rule that addresses management of inventoried roadless areas on the Tongass National Forest; and

WHEREAS, three days before the MOU was signed and six months after the State filed its petition, the Forest Service informed OVS by a letter dated 30 July 2018 that the U.S. Secretary of Agriculture Perdue and State of Alaska Governor Walker had reached an agreement to prepare an Alaska-specific rule that would replace the Roadless Rule and "provide for activities needed to further the State of Alaska's economic development while conserving roadless areas for future generations;" and

WHEREAS, the July 30th letter served as an invitation from Acting Regional Forester, David E. Schmid to a "Tribal Leader" inviting "government-to-government consultation in advance of a formal public comment period and an opportunity for your Tribe to participate as a cooperating agency", because of our "expertise on subsistence and potential impacts to specific communities within Alaska" during preparation

of an environmental impact statement (EIS) to evaluate the proposed Alaska-specific Roadless Rule for the Tongass National Forest; and

WHEREAS, the U.S. Department of Agriculture, which includes the Forest Service, published a *Notice of Intent* (NOI) published on August 30, 2018 announcing an intent to prepare an environmental impact statement (EIS) and initiate a public rulemaking process; and

WHEREAS, the joint announcement issued by the Forest Service when the MOU was signed promises to leave unaffected Tongass lands designated “Wilderness” by Congress, but no mention is made of the fate of nearly 900,000 acres of Legislated LUD II lands designated for perpetual protection from logging and roadbuilding by Congress in the 1990 *Tongass Timber Reform Act* and the 2014 *Sealaska Lands Bill*; and

WHEREAS, any rule that weakens or eliminates Roadless Rule protections in what became Inventoried Roadless Areas of the Tongass National Forest will substantially affect the existing 2016 Tongass Land Management Plan Amendment; and

WHEREAS, the 2016 Plan Amendment excluded all roadless areas from the available timber base, the agency’s failure to consult and coordinate forest planning with OVS will impair the Tribe’s ability to fulfill its responsibility to “protect the general welfare and security” of tribal citizens; and

WHEREAS, the USDA and Forest Service entered into an MOU with the State of Alaska and issued the NOI for preparation of an EIS for an Alaska-specific Roadless Rule without prior consultation or collaboration with OVS; and

WHEREAS, one of the handouts provided by the Forest Service at the Ketchikan public scoping meeting on Monday, 17 of September 2018 identifies the responsibilities of the Tribe as a “cooperating agency,” the Forest Service has not explained adequately why it failed to fulfill its’ responsibilities to consult with the Tribe; and

WHEREAS, the State of Alaska resists all efforts to develop and work in a government to government relationship with Tribes and did not consult with the OVS before filing its’ petition with the USDA; and

WHEREAS, Governor Walker issued Administrative Order 299, establishing the Alaska Roadless Rule Citizen Advisory Committee (CAC) on September 5, 2018; and

WHEREAS, Alaska Governor Walker appointed 13 Alaskans to the CAC, including the Alaska State Forester, to advise the State of Alaska on the future management of inventoried roadless area in the Tongass National Forest; and

WHEREAS, the Governor appointed a single Alaska Native to represent all tribal perspectives for the seventeen federally-recognized Tribes of Alaska Natives in Southeast Alaska on the CAC, a gigantic and unrealistic burden for one person; and

WHEREAS, the only other Alaska Native on the CAC represents Sealaska Corporation and Sealaska is an Alaska Native for-profit Corporation established under the *Alaska Native Claims Settlement Act* is not a Tribe.

THEREFORE, BE IT RESOLVED, the Forest Service must initiate consultation, coordination and accommodation of tribal interests in any changes to TLMP connected with this rulemaking process; and

THEREFORE, BE IT FURTHER RESOLVED, given the serious and long-lasting Tribal implications from any reduction in current Roadless Rule protections, the Organized Village of Saxman strongly objects to the Forest Service's failure to consult with OVS before deciding to grant the State of Alaska's petition and begin a review under the *National Environmental Policy Act* and public rulemaking process; and

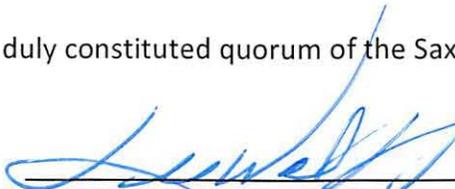
THEREFORE, BE IT FURTHER RESOLVED, the only changes to the Roadless Rule that OVS can support is an update to the inventory used to define inventoried roadless areas subject to the Rule on the Tongass to include approximately 350,000 acres excluded from the 1995 inventory used for developing the 2001 Roadless Rule, because the agency assumed approved logging development would occur – when it did not; and

BE IT FINALLY RESOLVED, the Organized Village of Saxman strongly supports lasting protection for all inventoried roadless areas within the Tongass National Forest as provided in the Roadless Rule.

CERTIFICATION:

PASSED and APPROVED by a duly constituted quorum of the Saxman I.R.A. Council on October 10, 2018





Lee Wallace, Saxman I.R.A. Council President

10.11.18
Date

ATTESTED:



Sylvia Banie, Saxman I.R.A. Council Vice President

10/11/18
Date

EXHIBIT 23

Organized Village of Kake, Resolution No. 2018-04 (Oct. 10, 2018)



Organized Village of Kake

P.O. Box 316

Kake, Alaska 99830-0316

Telephone 907-785-6471

Fax 907-785-4902 / www.kake-nsn.gov



(Federally Recognized Tribal Government serving the Kake, Alaska area)

October 10, 2018

Alaska Roadless Rule
U.S.D.A. Forest Service
Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, AK 99802-1628

RE: Organized Village of Kake Comments for Roadless Rule in Alaska

To Whom it may concern,

The Organized Village of Kake (OVK) is the federally recognized Indian Tribe organized under the authority of the Indian Reorganization Acts of 1934 and 1936. OVK is empowered under its Constitution and By-Laws "to aid needy citizens and protect the general welfare and security of the village." One of OVK's highest priorities is to protect the Village's customary and traditional hunting, fishing and gathering areas and uses within the Keex' Kwaan's traditional territory.¹ These lands include national forest lands on Kuiu, Kupreanof, and portions of Baranof & Admiralty Islands, as well as portions of the mainland. OVK would like to engage with the USFS and State of Alaska as a co-manager/cooperater of resources in the traditional Kake, AK area. Many of OVK's citizens are on the ground utilizing all of the areas around Kake and are the first impacted by decision makers 100 miles away in Juneau and 3,000+ miles away in Washington D.C.

On August 2, 2018, in response to the State of Alaska's petition for a full exemption from the 2001 Roadless Area Conservation Rule (Roadless Rule), the Forest Service signed a Memorandum of Understanding with the State of Alaska to develop an Alaska state-specific roadless rule to address the management of inventoried roadless areas on the Tongass National Forest in Southeast Alaska. The U.S. Department of Agriculture announced on August 30, 2018 its intent to prepare an environmental impact statement (EIS) and public rulemaking process to According to the Notice of Intent, the State of Alaska will participate as a cooperating agency in the preparation of the EIS and "Federally recognized Tribes within the Tongass National Forest have been invited to participate as a cooperating agency." The notice further gave notice of eleven public meetings planned in Southeast Alaska, including Kake on September 26, 2018 (Postponed to Oct. 10, 2018).

Pursuant to Executive Order 13175, Departmental Regulation No. 1350-002, and Forest Service Manual (FSM), the United States Forest Service has adopted official policy regarding American Indian and Alaska Native relations. Pursuant to FSM 1563.02, paragraph 4, agency

¹ Goldschmidt & Haas (1946). A map of the traditional territory of the Kake Tlingit prepared by Goldschmidt and Haas is attached, for your information.

American Indian and Alaska Native relations. Pursuant to FSM 1563.02, paragraph 4, agency officials are to "[s]upport the aspirations of the UN Declaration on the Rights of Indigenous Peoples. "Specifically, this means "that agency officials should consult with indigenous people –the duly elected officials of federally recognized tribes and the traditional holders of Indian religions, knowledge, and practices –early in their decision-making processes. " To further this objective, it is the policy of the Forest Service that "Indian tribes will be provided the opportunity for timely and meaningful government-to-government consultation regarding actions which may have tribal implications. " See FSM 1563.03. Such consultation requires the agency to "[c]ollaboratively involve Indian tribes, as early as possible, in the development of regulatory and management policies, resource and land management plans, study plans and actions, and Federal undertakings that may have tribal implications. " *Id.* at 3.b.

The U.S.D.A. and Forest Service entered into the MOU with the State of Alaska and issued the NOI for preparation of an EIS for an Alaska-specific roadless rule without any consulting or collaboration with OVK, in violation of policies under Executive Order 13175, Departmental Regulation No. 1350-002, and the Forest Service Manual. OVK strongly objects to the agency's utter failure to consult with OVK prior to responding to the State of Alaska's petition and initiating preparation of an EIS to support the rulemaking process. The belated invitation to the Tribe to participate as a cooperating agency, and holding a scoping hearing in Kake, cannot compensate for the agency's abject failure to consult and collaborate with the Tribe before proceeding with this Alaska-specific rulemaking –particularly when the proposed rulemaking has such grave and drastic tribal implications for the many tribal citizens who rely on these lands. Likewise, the State of Alaska's establishment of the Alaska Roadless Rule Citizen Advisory Committee, which will include at least one member representing a federally recognized Tribe, will not address our concerns; every tribe should be represented on the committee. First, it appears that this committee by design will not assure fair and balanced representation of both development and non-development interests. Secondly, the proposed schedule for the committee providing recommendations to the Governor and State Forester elevates satisfying the State's hurried and arbitrary timeline above the interests of any other stakeholders in this process.

OVK is concerned that the Forest Service will delay revising the Tongass Land Management Plan, (TLMP) and amend it to authorize logging in roadless areas on a project-by-project basis. In such circumstances, it is likely the agency will tier to the analysis contained in any EIS prepared for this rulemaking. Given the agency must consult and coordinate forest planning on the Tongass with Alaska Native Tribes (36 C.F.R. 291.4), we are gravely concerned that the agency's failure to consult and collaborate adequately with the Tribe on this Alaska-specific rule will impair the agency's performance of its responsibility to consult and coordinate with the Tribe regarding forest planning. Both outcomes impair the Tribe's responsibility to "protect the general welfare and security of the village." As OVK listens to the "public comment " at other community meetings a large majority of the Alaska citizens are wanting the roadless rule intact and not changed; in fact, more protections are being asked for. In this world of changing climate, the State of Alaska should preserve what is left rather than loosening the regulations to have more development on pristine Tongass roadless areas.

is attached, for your information.

In conclusion, OVK would like to be at the table while decisions are being made on an Alaska-specific Roadless Rule. OVK would like to engage with the USFS and State of Alaska to guide the projects and activity in the traditional Kake area, from increasing some protections in important cultural areas, to lessening regulations in other areas to promote a sustainable economy. All of the aforementioned decisions should be driven by the communities that utilize that area.

Gunalcheesh,

Handwritten signature of Joel Jackson in cursive script.

Joel Jackson
President

Cc: Petersburg District Ranger David Zimmerman, dlzimmerman@fs.fed.us
Acting Alaska Regional Forester David E. Schmid, dschmid@fs.fed.us
USDA Forest Service Interim Chief Vicki Christiansen, vcchristiansen@fs.fed.us

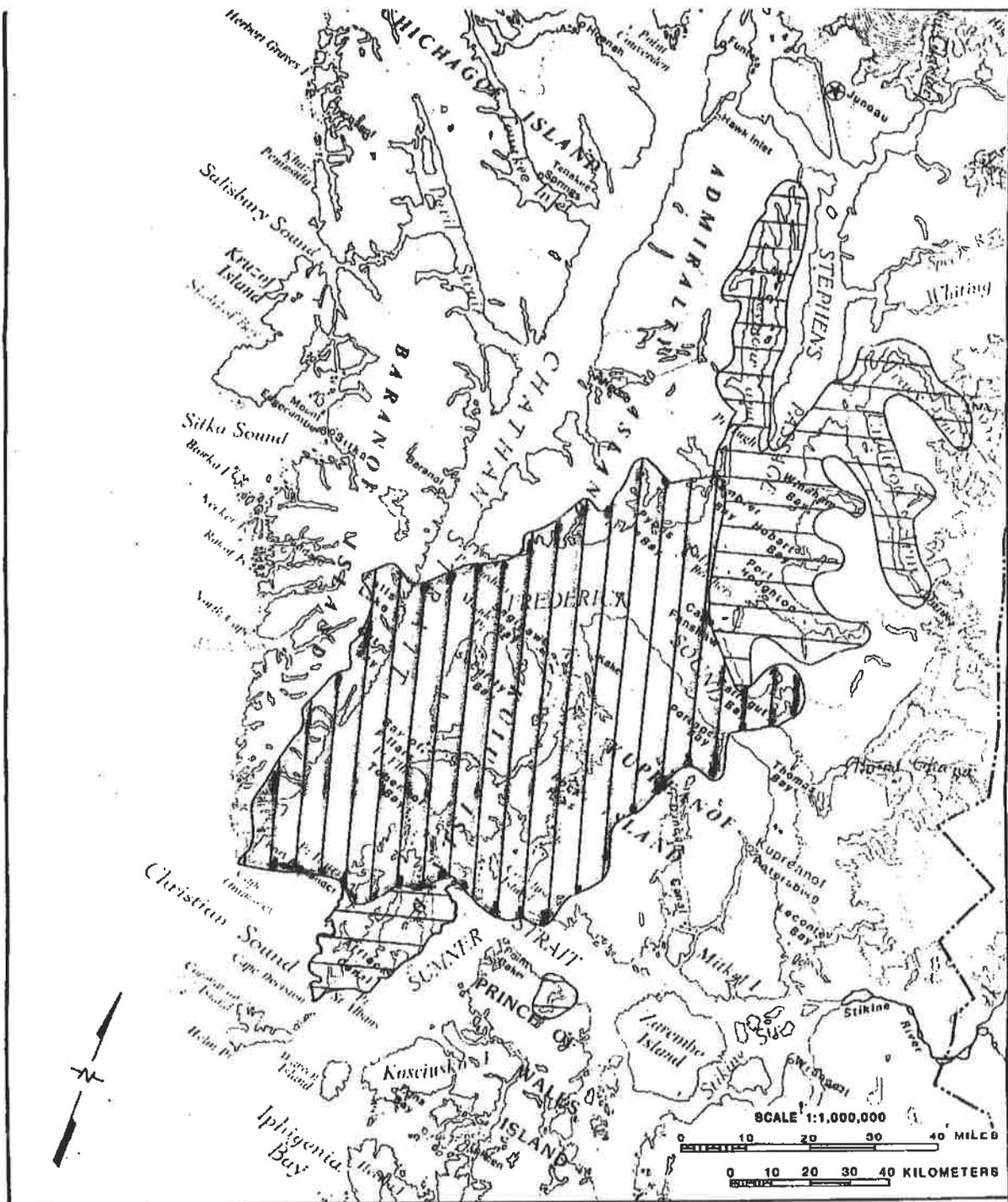
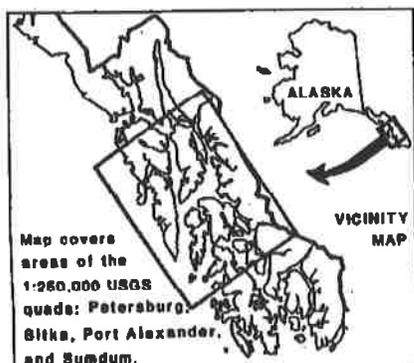


Figure 15. Traditional Territory of the Kake Tlingit, circa 1943.



Exclusive Claim Area

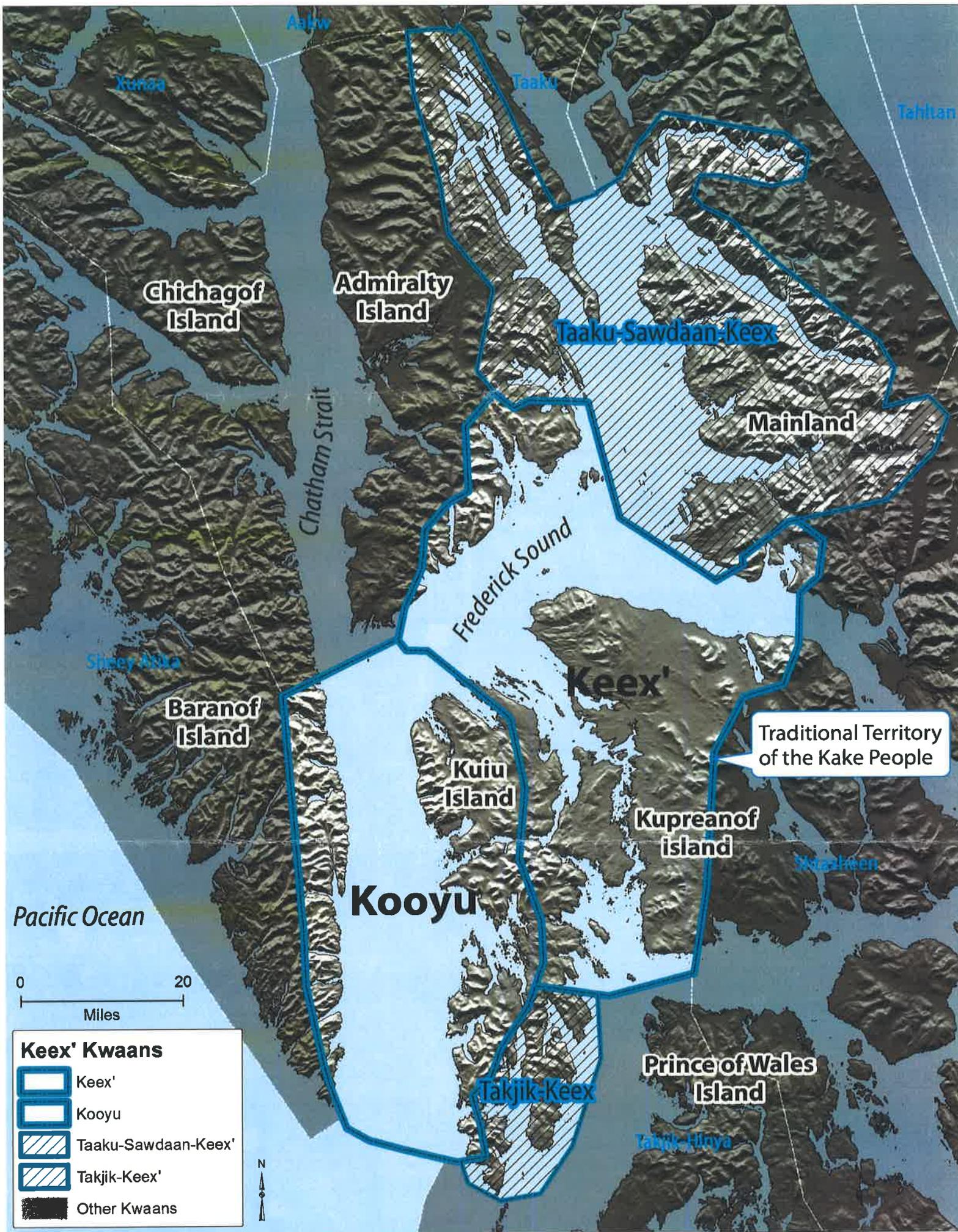


Joint Claim Area

SOURCE: Goldschmidt, W.A., and T.H. Haas 1946, Possessory Rights of the Natives of Southeast Alaska and Department of Interior 1944, Hearings on Claims of the Towns of Hydesburg, Klawock, and Kake, Alaska

STATE OF ALASKA
Department of Fish and Game
Subsistence Division







Organized Village of Kake

P.O. Box 316

Kake, Alaska 99830-0316

Telephone 907-785-6471

Fax 907-785-4902/www.kake-nsn.gov



(Federally Recognized Tribal Government serving the Kake, Alaska area)

Resolution No. 2018-24: Continued Tribal Support for Application of National Roadless Rule on the Tongass National Forest

- WHEREAS, the Organized Village of Kake (hereinafter OVK) is a federally recognized Indian Tribe under federal law and is empowered under its *Constitution & By-Laws* to execute agreements and contracts with the United States to benefit its members; and,
- WHEREAS, OVK is further defined as an Indian Tribe in the Indian Self-determination and Education Assistance Act, PL 93-638 and as such is entitled to contract with the Federal Government for the operation of any federal programs, services, activities or functions serving its member; and,
- WHEREAS, our traditional territory includes lands on Kupreanof, Kuiu, Eastern Baranof, and southern Admiralty Islands, and along the mainland, including Port Houghton and as far as Taku River south to Port Houghton; and
- WHEREAS, protection of our inherent right to harvest and use our traditional and customary foods requires careful cultural stewardship and protection of our environmental and natural resources; and
- WHEREAS, our care of the lands now classified as “inventoried roadless areas” (IRA) and within the Tongass National Forest stretches for millennia; and
- WHEREAS, these lands not only provide our people with food, they essentially define who we are and where we come from; and
- WHEREAS, inventoried roadless areas protect healthy watersheds that ensure a clean drinking water supply for our Tribal citizens
- WHEREAS, inventoried roadless areas contain many sites sacred to Tribal citizens and other Alaska Natives who use these roadless areas for spiritual and religious practices and other customary uses and activities; and
- WHEREAS, inventoried roadless areas conserve natural diversity, serve as a bulwark against the spread of invasive species; and
- WHEREAS, inventoried roadless areas help ensure the continued protection of indigenous fish and wildlife habitat as it relates to our spiritual, social, nutritional, and ecological values; and
- WHEREAS, given Southeast Alaska’s cool wet weather, the amount of stored carbon in our intact old-growth forest and soils, the Tongass National Forest represents one of the highest carbon stores in the world and the conservation of intact inventoried roadless areas

on the Tongass is essential for maintaining America's resilience and slowing down climate change throughout the world; and

WHEREAS, the Roadless Rule prevents the disturbance of soils and wasteful construction of damaging roads in inventoried roadless areas; and

WHEREAS, according to the State of Alaska's own economic experts, Tongass timber is uncompetitive because of permanent and fundamental changes in global timber markets, high labor costs, distance from markets, and less expensive substitutes; and

WHEREAS, the Tongass timber industry represents less than one percent of today's jobs and earnings in Southeast Alaska; and

WHEREAS, there are over 5,000 miles of roads already crisscrossing the Tongass National Forest, fragmenting valuable wildlife habitat, threatening salmon by blocking fish passage, and serving as the primary source of sediment into fish streams; and

WHEREAS, spending millions of taxpayer dollars to build roads in inventoried Tongass roadless areas makes no economic sense, particularly given the agency's enormous road maintenance backlog; and

WHEREAS, at hearings held across Southeast Alaska in 2000 on the proposed roadless rule, nearly 60 percent of the Southeast Alaskans who spoke at the hearings supported including the Tongass National Forest in the final roadless rule, and has only grown to upward of 80 percent to date; and

WHEREAS, after the hearing held in Ketchikan during the summer of 2002 on the draft supplemental environmental impact prepared to evaluate recommendations for designating additional inventoried roadless areas on the Tongass as Wilderness, the Ketchikan Daily News reported that roughly 85 percent of the public who testified supported more Wilderness;

WHEREAS, the State of Alaska petitioned the United States Department of Agriculture (USDA) to exempt Tongass inventoried roadless areas from the Roadless Rule on January 19, 2018;

WHEREAS, for all the above reasons, the State's petition severely mischaracterizes the actual extent and impacts of the Roadless Rule on Southeast Alaska; and

WHEREAS, the State's petition ignores the fact that the USDA narrowly tailored the Roadless Rule to limit only two activities in roadless areas, road construction and commercial logging; and

WHEREAS, the State of Alaska's petition ignores the Rule's established exceptions, including Federal Aid Highway projects connecting communities, access to mining claims, and logging incidental to otherwise permitted activities, including utility corridors and hydropower projects; and

- WHEREAS, on August 2, 2018, the Forest Service signed a Memorandum of Understanding (MOU) with the State of Alaska to develop an Alaska-specific roadless rule that addresses management of inventoried roadless areas on the Tongass National Forest; and
- WHEREAS, three days before the MOU was signed and six months after the State filed its petition, the Forest Service informed OVK by a letter dated 30 July 2018 that the U.S. Secretary of Agriculture Perdue and State of Alaska Governor Walker had reached an agreement to prepare an Alaska-specific rule that would replace the Roadless Rule and “provid[e] for activities needed to further the State of Alaska’s economic development while conserving roadless areas for future generations;” and
- WHEREAS, the July 30th letter served as an invitation from Acting Regional Forester David E. Schmid to a “Tribal Leader” inviting “government-to-government consultation in advance of a formal public comment period and an opportunity for your Tribe to participate as a cooperating agency” because of our “expertise on subsistence and potential impacts to specific communities within Alaska” during preparation of an environmental impact statement (EIS) to evaluate the proposed Alaska-specific roadless rule for the Tongass National Forest, and other alternative; and.
- WHEREAS, the U.S. Department of Agriculture, which includes the Forest Service, published a Notice of Intent (NOI) published on August 30, 2018 announcing its intent to prepare an environmental impact statement (EIS) and initiate a public rulemaking process; and
- WHEREAS, the joint announcement issued by the Forest Service when the MOU was signed promises to leave unaffected Tongass lands designated Wilderness by Congress, no mention is made of the fate of nearly 900,000 acres of Legislated LUD II lands designated for perpetual protection from logging and roadbuilding by Congress in the 1990 Tongass Timber Reform Act and the 2014 Sealaska Lands Bill; and
- WHEREAS, Kuiu Island and the surrounding smaller islands are important to the residents of Kake, especially the coastal areas near Kake. Areas most often associated with higher values include the Keku Islands, Kadake Bay and Creek, Port Camden, Rocky Pass, and the East Kuiu Roadless Area on the south and east side of Kuiu Island in addition to all of Kupreanof;
- WHEREAS, any rule that weakens or eliminates Roadless Rule protections within our traditional territory in what became Inventoried Roadless Areas of the Tongass National Forest will substantially affect the existing 2016 Tongass Land Management Plan Amendment; and
- WHEREAS, the 2016 Plan Amendment excluded all roadless areas from the available timber base, the agency’s failure to consult and coordinate forest planning with OVK will impair the Tribe’s ability to fulfill its responsibility to “protect the general welfare and security” of Tribal citizens; and.

WHEREAS, pursuant to Executive Order 13175, Departmental Regulation No. 1350-002, and Forest Service Manual (FSM), the United States Forest Service adopted an official policy (FSM 1563.02, paragraph 4) to “[s]upport the aspirations of the UN Declaration on the Rights of Indigenous Peoples.” Specifically, this means “that agency officials should consult with indigenous people – the duly elected officials of federally recognized tribes and the traditional holders of Indian religions, knowledge, and practices – early in their decision-making processes;” and

WHEREAS, as provided in FSM 1563.03, it is the policy of the Forest Service that “Indian tribes will be provided the opportunity for timely and meaningful government-to-government consultation regarding actions which may have tribal implications” and such consultation requires the agency to “[c]ollaboratively involve Indian tribes, as early as possible, in the development of regulatory and management policies, resource and land management plans, study plans and actions, and Federal undertakings that may have tribal implications;” and

WHEREAS, the USDA and Forest Service entered into an MOU with the State of Alaska and issued the NOI for preparation of an EIS for an Alaska-specific roadless rule without prior consultation or collaboration with OVK; and

WHEREAS, the Forest Service has not explained adequately why it failed to fulfill its responsibilities to consult with the Tribe; and

WHEREAS, the State of Alaska continues to resist all efforts to develop and work in a government to government relationship with the Tribes and never consulted with the OVS before filing its petition with the USDA; and

WHEREAS, Governor Walker issued Administrative Order 299, establishing the Alaska Roadless Rule Citizen Advisory Committee (CAC) on September 5, 2018; and

WHEREAS, Alaska Governor Walker appointed 13 Alaskans to the CAC, including the Alaska State Forester, to advise the State of Alaska on the future management of inventoried roadless area in the Tongass National Forest; and

WHEREAS, the Governor appointed a single Alaska Native to represent all Tribal perspectives for the seventeen federally-recognized Tribes of Alaska Natives in Southeast Alaska on the CAC, a gigantic and unrealistic burden for one person; and

WHEREAS, the only other Alaska Native on the CAC represents Sealaska Corporation; and

WHEREAS, Sealaska is an Alaska Native for-profit Corporation established under the Alaska Native Claims Settlement Act -- not a Tribe; and

THEREFORE BE IT RESOLVED, OVK strongly supports lasting protection for all inventoried roadless areas within OVK’s traditional territory now within the Tongass National Forest as provided for in the Roadless Rule; and

THEREFORE BE IT FURTHER RESOLVED, given the serious and long lasting Tribal implications from any reduction in current Roadless Rule protections, we strongly object to the Forest Service's failure to consult with OVK before deciding to grant the State of Alaska's petition and begin a review under the National Environmental Policy Act and public rulemaking process;

THEREFORE BE IT FURTHER RESOLVED, the only changes to the Roadless Rule that OVK can support is an update to the inventory used to define inventoried roadless areas subject to the Rule on the Tongass to include approximately 350,000 acres excluded from the 1995 inventory used for developing the 2001 Roadless Rule because the agency assumed approved logging development would occur – when it did not;

BE IT FINALLY RESOLVED, the Forest Service must also initiate consultation, coordination, and accommodation of Tribal interests in any changes to TLMP connected with this rulemaking process.

CERTIFICATION

This resolution was duly adopted at an IRA Council meeting held this 10 day of October, 2018 by a quorum of 7 (includes president as non-voting chairperson except in case of tie vote) with 7 yes votes, _____ no votes, and _____ abstaining.

Joel Jackson pres.
Joel Jackson, President

Patti Handy vice
Attested by

EXHIBIT 24

Craig Tribal Association, Resolution 2018-037 (2018)



Craig Tribal Association
P.O. Box 828
Craig, Alaska 99921
Tel: 907-826-3996
Fax: 907-826-3997

October 15, 2018

Ken Tu, Interdisciplinary Team Leader
Alaska Roadless Rule
USDA Forest Service, Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, Alaska 99802-1628

Re: Scoping Comments on the Alaska-specific Roadless Rulemaking

Dear Mr. Tu,

The Craig Tribal Association is a federally recognized tribe located on Prince of Wales Island. Our tribal members participate in subsistence activities on the Forest involving fishing and foraging. Our tribal members also participate in non-consumptive uses of the Forest such as hiking, boating and wildlife viewing in designated recreational areas and all other designated land use zones.

The Craig tribe believes the Roadless Rule has worked on the Tongass and in Alaska. The planning processes that resulted in the Tongass Land Management Plan(s) and numerous individual projects including the Big Thorne Project and the Prince of Wales Landscape Level assessment were completed assuming that the Rule was in effect. Logging was allowed, and the industry as a whole has thrived at its post-pulp mill level. Logging proponents used the Rule to advocate for concentrated logging in roaded areas, and this reasoning was adopted into the plans and project to the detriment of subsistence opportunities for community members and wildlife habitat.

The current Roadless Rule limits only road construction and logging in roadless areas of the Tongass. The assertion that the Rule substantially impacts the social and economic fabric of Southeast Alaska is unproven and there does not appear to be evidence to support the foundation of the argument for a change.

The conservation strategy incorporated into the Forest plans relies on habitat conservation areas, old growth, and wildlife mitigation corridors that extend across altitudes and through different types of forest. These corridors allow animals to move north and south, east and west, from high elevation to low, from summer feeding grounds to winter shelter from the weather. The high quality HCAs and corridors that have not been logged or roaded to date are predominately in the existing Roadless areas.

On behalf of the Craig Tribal Association tribal members, the tribe supports the status-quo and views the re-defining land use designations or re-designating current roadless areas to a different existing less restrictive management designation will unravel decades of work into the Tongass Land Management Plan and associated documents.

Thank you for the opportunity of the tribe to weigh in on this process.

Sincerely,

A handwritten signature in blue ink that reads "Clinton E. Cook Sr". The signature is written in a cursive, flowing style.

Clinton E. Cook, Sr.
Tribal President

Attachment: CTA Resolution 2018-37



Craig Tribal Association

P.O. Box 828

Craig, AK 99921

PH: (907)826-3996

Fax: (907)826-3997

CTA Resolution: 2018 - 37

TITLE: CRAIG TRIBAL ASSOCIATION TRIBAL COUNCIL TO AUTHORIZE TRIBAL SUPPORT FOR APPLICATION OF NATIONAL ROADLESS RULE ON THE TONGASS NATIONAL FOREST and TO AUTHORIZE STRONG SUPPORT FOR LASTING PROTECTION OF THE ROADLESS RULE.

WHEREAS, the Craig Tribal Association-CTA, (IRA) is a duly constituted Indian Tribe, organized pursuant to the authority of Section 16 of the Act of Congress of June 18, 1934, (48 Stat.984), as amended by the acts of Congress, June 15th, 1935, (49 Stat.378 and May 1, 1936, (49 Stat. 1250), and

WHEREAS, the Craig Tribal Association Tribal Council is the governing body of the Craig Tribe in accordance with its Constitution and By-Laws; representing the Association in all its undertakings for the well being of the Tribe, exercising their powers and authority to make rules and regulations, and

WHEREAS, protection of the inherent right to harvest and use traditional and customary foods require careful stewardship and protection of the environmental and natural resources; and

WHEREAS, the care of the lands now classified as “inventoried roadless areas” in the Tongass National Forest stretches for millennia; and

WHEREAS, these lands not only provide Alaska Native people with food, they essentially define who are and where we come from; and

WHEREAS, inventoried roadless areas contain many sacred sites used for spiritual and religious practices and other customary uses and activities; and

WHEREAS, inventoried roadless areas conserve natural diversity, serve as a bulwark against the spread of invasive species, protect healthy watersheds ensuring clean drinking water supply, and help ensure the continued protection of indigenous fish and wildlife habitat the social, nutritional, and ecological values; and

WHEREAS, the Tongass National Forest represents one of the highest carbon stores in the world and the conservation of intact inventoried roadless areas on the Tongass is essential for maintaining America's resilience slowing down climate change throughout the world; and

WHEREAS, the Roadless Rule prevents the disturbance of soils and wasteful construction of damaging roads in inventoried roadless areas; and

WHEREAS, according to the State of Alaska's own economic experts, Tongass timber is uncompetitive because of permanent and fundamental changes in global timber markets, high labor costs, distance from markets, and less expensive substitutes; and

WHEREAS, the Tongass timber industry represents less than one percent of today's jobs and earnings in Southeast Alaska; and

WHEREAS, there are over 5,000 miles of roads already crisscrossing the Tongass National Forest, fragmenting valuable wildlife habitat, threatening salmon by blocking fish passage, and serving as the primary source of sediment into fish streams; and

WHEREAS, spending millions of taxpayer dollars to build roads in inventoried Tongass roadless areas makes no economic sense, particularly given the agency's enormous road maintenance backlog; and

WHEREAS, at hearings held across Southeast Alaska in 2000 on the proposed Roadless Rule, nearly 60 percent of the Southeast Alaskans supported including the Tongass National Forest in the final roadless rule; and

WHEREAS, after the hearing held in Ketchikan during the summer of 2002, the draft supplemental environmental impact prepared to evaluate recommendations for designating additional inventoried roadless areas on the Tongass as "Wilderness", the *Ketchikan Daily News* reported that roughly 85 percent of the public who testified supported more "Wilderness";

WHEREAS, the State of Alaska petitioned the United States Department of Agriculture (USDA) to exempt Tongass inventoried roadless areas from the Roadless Rule on January 19, 2018;

WHEREAS, for all the above reasons, the State's petition severely mischaracterizes the actual extent and impacts of the Roadless Rule on Southeast Alaska; and

WHEREAS, the State's petition ignores the fact that the USDA narrowly tailored the Roadless Rule to limit only two activities in roadless areas, road construction and commercial logging; and

WHEREAS, the State of Alaska's petition ignores the Rule's established exceptions, including Federal Aid Highway projects connecting communities, access to mining claims, and logging incidental to otherwise permitted activities, including utility corridors and hydropower projects; and

WHEREAS, on August 2, 2018 the Forest Service signed a Memorandum of Understanding (MOU) with the State of Alaska to develop an Alaska-specific Roadless Rule that addresses management of inventoried roadless areas on the Tongass National Forest; and

WHEREAS, three days before the MOU was signed and six months after the State filed its petition, the Forest Service informed CTA by a letter dated 30 July 2018 that the U.S. Secretary of Agriculture Perdue and State of Alaska Governor Walker had reached an agreement to prepare an Alaska-specific rule that would replace the Roadless Rule and "provide for activities needed to further the State of Alaska's economic development while conserving roadless areas for future generations;" and

WHEREAS, the July 30th letter served as an invitation from Acting Regional Forester, David E. Schmid to a "Tribal Leader" inviting "government-to-government consultation in advance of a formal public comment period and an opportunity for you Tribe to participate as a cooperative agency," because of our "expertise on subsistence and potential impacts to specific communities within Alaska" during preparation of an environmental impact statement (EIS) to evaluate the proposed Alaska-specific Roadless Rule for the Tongass National Forest; and

WHEREAS, the U.S. Department of Agriculture, which includes the Forest Service, published a *Notice of Intent* (NOI) published on August 30, 2018 announcing an intent to prepare an environmental impact statement (EIS) and initiate a public rulemaking process; and

WHEREAS, the joint announcement issued by the Forest Service when the MOU was signed promises to leave unaffected Tongass lands designated "Wilderness" by Congress, but no mention is made of the fate of nearly 900,000 acres of Legislated LUD II lands designated for perpetual protection from logging and roadbuilding by Congress in the 1990 *Tongass Timber Reform Act* and the 2014 *Sealaska Lands Bill*; and

WHEREAS, any rule that weakens or eliminates Roadless Rule protections in what became Inventoried Roadless Areas of the Tongass National Forest will substantially affect the existing 2016 Tongass Land Management Plan Amendment; and

WHEREAS, the 2016 Plan Amendment excluded all roadless areas from the available timber base, the agency's failure to consult and coordinate forest planning with CTA will impair the Tribe's ability to fulfill its responsibility to "protect the general welfare and security" of tribal citizens; and

WHEREAS, the USDA and Forest Service entered into a MOU with the State of Alaska and issued the NOI for preparation of an EIS for an Alaska-specific Roadless Rule without prior consultation or collaboration with CTA; and

WHEREAS, one of the handouts provided by the Forest Service at the Ketchikan public scoping meeting on Monday, 17 of September 2018 identifies the responsibilities of the Tribe as a “cooperating agency” the Forest Service has not explained adequately why it failed to fulfill its’ responsibilities to consult with the Tribe; and

WHEREAS, the State of Alaska resists all efforts to develop and work in a government to government relationship with Tribes and did not consult with the CTA before filing its’ petition with the USDA; and

WHEREAS, Governor Walker issued Administrative Order 299, establishing the Alaska Roadless Rule Citizen Advisory Committee (CAC) on September 5, 2018; and

WHEREAS, Alaska Governor Walker appointed 13 Alaskans to the CAC, including the Alaska State Forester, to advise the State of Alaska on the future management of inventoried roadless area in the Tongass National Forest; and

WHEREAS, the Governor appointed a single Alaska Native to represent all tribal perspectives for the seventeen federally-recognized Tribes of Alaska in Southeast Alaska on the CAC, a gigantic and unrealistic burden for one person; and

WHEREAS, the only other Alaska Native on the CAC represents Sealaska Corporation and Sealaska is an Alaska Native for-profit Corporation established under the *Alaska Native Claims Settlement Act* is not a Tribe.

THEREFORE, BE IT RESOLVED, the Forest Service must initiate consultation, coordination and accommodation of tribal interest in any changes to TLMP connected with this rulemaking process; and

THEREFORE, BE IT FURTHER RESOLVED, given the serious and long-lasting Tribal implications from any reduction in current Roadless Rule protections, the Craig Tribal Association strongly objects to the Forest Service’s failure to consult with CTA before deciding to grant the State of Alaska’s petition and begin a review under the *National Environmental Policy Act* and public rulemaking process; and

THEREFORE, BE IT FURTHER RESOLVED, the only changes to the Roadless Rule that CTA can support is an update to the inventory used to define inventoried roadless areas subject to the Rule on the Tongass to include approximately 350,000 acres excluded from the 1995 inventory used for developing the 2001 Roadless Rule, because the agency assumed approved logging development would occur – when it did not; and

NOW, THEREFORE BE IT NOW RESOLVED, the Craig Tribal Association strongly supports lasting protection for all inventoried roadless areas within the Tongass National Forest as provided in the Roadless Rule.

CERTIFICATION

The undersigned do hereby certify that the Council is composed of seven members of which an established quorum was present at this duly convened meeting and this resolution was adopted by the following votes, and has not been rescinded, amended, or modified in any way this ____ day of April, 2018:

Yes No Abstained Excused Absent.

ATTEST:


Clinton E. Cook, Sr., Tribal President


June E. Durgan, Tribal Secretary