Alaska Rainforest Defenders
A regional environmental organization established in 2011 (formerly GSACC)

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December 16, 2019

Attn: USDA Secretary Perdue
Alaska Roadless Rule
USDA Forest Service, Alaska Region
Ecosystem Planning and Budget Staff
P.O. Box 21628
Juneau, Alaska 99802-1628
Submitted via: www.fs.usda.gov/project/?project=54511

Re: Alaska Roadless Rulemaking

Dear Secretary Perdue,

These are timely comments of the Alaska Rainforest Defenders ("Defenders") for the proposed USDA Forest Service Alaska Roadless Rulemaking process. Exhibits were sent to you by postal mail earlier today, on a thumb drive.

We urge that you select the No-Action alternative.

Defenders' members use the Tongass National Forest for recreation, commercial fisheries, subsistence, wildlife viewing, scientific research and other activities. We have a long-standing interest in the ecological integrity of the Alaska Alexander Archipelago and its importance to local and regional economies, both cash and subsistence. In particular, our board members have engaged in considerable advocacy on behalf of iconic Tongass wildlife species, such as the Alexander Archipelago Wolf, Queen Charlotte Goshawk, black and brown bear, and Sitka black-tailed deer and have a long history of participation in and dependence on southeast Alaska's commercial salmon fisheries.

As over 200 scientists wrote in January 2018:

> "Nowhere are the benefits of protecting roadless areas and similar ecologically important lands greater than on the Tongass. With towering old-growth trees that can live 700 to 1000 years, it is our country's largest expanse of native forest and one of the last remaining intact coastal rain forests in the world."[1]

We agree. The 2001 Roadless Rule is sound socio-economic policy for the socio-economic well-being of Southeast Alaska.

Roadless Rule exemption alternatives reflect a transparent attempt by the Alaska Governor's office, the Forest Service, and the Alaska's congressional delegation to expand the scale of clearcutting in some of southeast Alaska's most ecologically important ecosystems that provide roadless refugia for salmon and wildlife in areas otherwise surrounded by clearcuts. The decision to open up unlogged, unroaded areas is unacceptable.

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[1] Scientists letter on Alaska forest riders to Members of Congress United States Senate and House of Representatives. January 26, 2018. https:/www.dropbox.com/s/pukgfha9fn4x6j6/Scientists%20ltr%20re%20Alaska%20forest%20riders.pdf?dl=0

This proposed Rulemaking if approved, will continue the trend of mismanaging Southeast Alaska's public old-growth forests as a subsidized federal timber colony that provides high value cedar to Viking Lumber's de facto parent corporation in Washington State or other Pacific Rim wood processors far outside the region. The Forest Service would then manage its maturing second-growth forests as a plantation for some other out-of-state timber broker, delaying watershed recovery and permanently eliminating habitat for wildlife.

There have long been concerns for deer populations on many central and southern southeast Alaska islands affected by this rulemaking. The Forest Service and State of Alaska have authorized Viking Lumber and Alcan Forest Products/Transpac to destroy much of the best remaining publicly owned winter deer habitat throughout central and southern southeast Alaska. Further removals could cause local wildlife extirpations and force the few survivors into isolated patches of lower quality habitat.

There have been recent and severe declines in pink salmon harvests in Alaska Department of Fish and Game (ADF&G) regulatory districts in southeast Alaska. In 2016 the pink salmon fishery was a disaster and in 2018 returns were far worse. These declines make it essential for the Forest Service to consider whether the need to provide aquatic habitat for fishery resources used by hundreds of local fishermen and processors should take priority over perceived need to enable one or two timber companies to realize harvest cost savings of a million or two dollars.

A Taxpayers for Common Sense analysis using Forest Service budget data calculated that implementation of Tongass Advisory Committee's 2016 Forest Plan Amendment timber sales will generate taxpayer losses of $367.5 million over the next fifteen years.[2] Isn't that enough for the timber companies?

Southeast Alaska residents and numerous non-resident businesses that rely on the region's natural capital contained within coastal forest island ecosystems. Industrial activities associated with the removal of remaining old-growth forest and implementation of plantation forestry for recovering second-growth forests will also render the southeast Alaska island shorelines and interior areas undesirable or even inhospitable for visitors to the region who come for recreation - particularly sport fishing and hunting.

Defenders requests that you cease this misguided Rulemaking exercise to build new roads into Tongass wildlands.

Defenders supports the no-action alternative, and we discuss our specific concerns in the following sections.

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[2] https://www.taxpayer.net/energy-natural-resources/u-s-forest-services-tongass-timber-plan-proposes-increased-costs-for-taxpa/

Contents

I. Purpose & Need and socio-economic analysis

A. The DEIS hides the timber industry purpose of this rulemaking behind an ambiguous, meaningless stated purpose

The DEIS claims that the purpose of this rulemaking is to create "a long-term, durable approach to roadless area management … that accommodates the unique biological, social and economic situation found in and around the Tongass.[3] This statement is so ambiguous as to be meaningless, and masks the true narrow purpose of this action - the Forest Service wants to remove Roadless Rule protections in order to expand the old-growth acreage available for large timber sales to "meet the needs of industry."[4] The State of Alaska's

[3] DEIS at 1-4.

[4] Alaska Roadless Rulemaking Cost Benefit Analysis at 30.

petition to which this rulemaking responds makes clear its primary purpose is to increase the acreage available to federal timber sale purchasers.[5]

The Forest Service projects that the additional acreage may result in cost savings to timber operators, and thus enable the Forest Service to offer positively appraised timber sales.[6] Specifically, the Forest Service hopes that Roadless Rule exemption alternatives would enable two federal timber sale purchasers to realize $1-2 million in annual harvest cost savings.[7] The DEIS admits that the proposed rulemaking will not increase employment levels or have any other positive economic impacts.[8] In other words, the singular goal of this is to allow the two companies who purchase large timber sales from the government opportunities to realize some cost-savings by authorizing them to clearcut some of the last remaining stands of high volume old-growth forest from the southern portion of the Tongass National Forest.[9]

It is beyond dispute that this rulemaking would benefit only one of two private companies. As shown in the Forest Service's 2016 market demand study, Viking Lumber monopolizes the small amount of federal timber utilized for mill production (*see chart*).

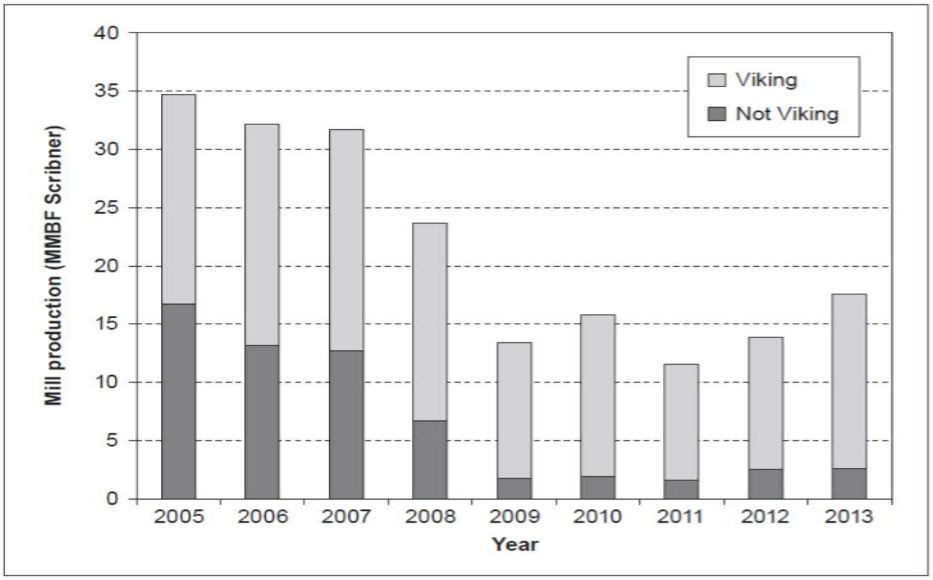

Figure 2—Lumber production, Viking Lumber Company and all other southeast Alaska producers.

[5] 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. Some aspects of this action purport to address non-timber infrastructure purposes. Those purposes are superfluous. This comment letter focuses on the effort to repeal prohibitions 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 stated non-timber purposes are disingenuous. The petition focused exclusively on southeast Alaska's "forest sector" and made no mention of any other resource concerns. The petition references "timber" 23 times in the eight page document. The petition requested an exemption for the Tongass National Forest and not the Chugach National Forest. If the rule really obstructed these potential projects on the Tongass then the petition would have requested exemptions for both Forests. The only difference between the two Forests is the absence of a large timber sale program from the Chugach.

During the Sept. 25, 2018 Petersburg open house, state and federal officials could not name even one example of a project hindered by the Roadless Rule. The agency's handout stated that it had approved 57 projects within inventoried roadless areas, including for energy development (hydroelectric), mining exploration, and interties.

[6] Alaska Roadless Rulemaking Cost-Benefit Analysis at 38.

[7] *Id.* at 31.

[8] DEIS at 3-49.

[9] *See* Alaska Roadless Rulemaking Cost Benefit Analysis at 30.

The other company, Alcan/Transpac, currently holds 56 percent of sold and uncut Tongass timber and Viking Lumber currently holds 28 percent of sold and uncut Tongass timber.[10] This actual purpose is unlawfully and unreasonably narrow because it responds solely to timber operational objectives rather than to the Forest Service's multiple use management responsibilities.[11] The Forest Service cannot allow the perceived needs of private entities to narrowly define the scope of a proposed project.[12] Instead, agency actions must look to other relevant factors, including the views of Congress as expressed in the agency's statutory authority and other congressional objectives.[13] Congress enacted the National Forest Management Act in part to respond to "widespread public distress and scientific concern over the Forest Service's post-World War II shift to *massive, heavily subsidized timber production in the National Forests*."[14] The goal was to ensure that timber production would not be the "sole objective" of the Forest Service and to direct forest managers to protect other resources such as fish and wildlife habitats.[15] Defenders submits that the agency's true purpose reflects an overly narrow focus on providing timber for two companies.

B. The Socio-economic analysis fails to address how the Roadless Rule contributes to southeast Alaska's socio-economic well-being

All Roadless Rule exemption alternatives will do significant harm to the economic viability of southeast Alaska communities in general and further inhibit market-based economic growth by perpetuating a federal land use policy that has been unsuccessful for decades and inhibits the transition toward proven and successful 21st century southeast Alaska economic models. The Forest Service isn't planning this project for an industry in the conventional sense of businesses employing workers - this is merely a corporate welfare program for Viking and Alcan that simultaneously supports a massive number of federal, state, and other for-profit and not-for-profit corporate bureaucrats.

The Forest Service's myopic focus on supporting Viking or Alcan/Transpac fails to recognize the region's market-based transition away from federal timber dependency and toward a more diversified and sustainable economy that depends on Roadless Rule protections for fisheries and tourism.[16] NEPA requires federal agencies to disclose sufficient information as needed to ensure "informed decisionmaking and informed public participation." NEPA analyses cannot serve this essential function if they reflect misleading economic assumptions "by skewing the public's evaluation of a project."[17] NEPA thus requires that "[a]gencies shall insure the professional integrity … of the discussions and analyses."[18]

It is hard to understand how a rulemaking aimed at providing harvest cost savings for two companies is relevant to *regional* socio-economic well-being or the rural workforce. The timber industry makes no positive economic contribution to the majority of southeast Alaska communities and the habitat damage it causes reduces economic outputs from their primary

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[10] DEIS at 3-36.

[11] *See, e.g. National Parks Conservation Ass'n v. Bureau of Land Management,* 606 F.3d 1058, 1070 (9th Cir. 2010)(*cert. denied,* March 28, 2011); *City of Carmel-by-the-Sea v. U.S. Dep't of Transportation,* 123 F.3d 1142, 1155 (9th Cir. 1997).

[12] *Id.* (citing *Citizens Against Burlington, Inc.* 938 F.2d at 196).

[13] *Citizens Against Burlington, Inc.* 938 F.2d at 196.

[14] *Sierra Club v. Peterson,* 185 F.3d 349, 353-54 (5th Cir. 1999)(*superseded* on other grounds, 228 F.3d 559 (5th Cir. 2000).

[15] S. Rep. 94-893, *reprinted in* 1976 U.S.C.C.A.N. 6662, 6671.

[16] 40 C.F.R. § 1502.1; *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332. 349 (1989)

[17] *Hughes River Watershed Conservancy v. Glickman,* 81 F.3d, 437, 446 (4th Cir. 1996).

[18] 40 C.F.R. § 1502.24.

business sectors. Only two of the 24 smaller rural communities have any timber activity at all, while the rest depend primarily on fishing and tourism.[19] The amended Forest Plan FEIS addresses the needs of those two communities (both on Prince of Wales Island) separately with an old-growth set-aside for the cottage industry.[20] Larger communities such as Petersburg, Wrangell and Ketchikan that once participated in the timber economy have fully transitioned toward economies based on tourism and fishing.[21]

The planning record for the 2016 LRMP Amendment shows a broad decline in the U.S. share of the global timber economy - declines that reflect "powerful, on-going changes in the role the U.S. plays in global markets."[22] The competitive disadvantage is particularly significant for southeast Alaska timber.[23] The Pacific Northwest Research Station's own publications verify these significant downward trends.[24] These changes have weakened the Forest Service's timber sale program to the point of irrelevancy from a regional private sector perspective. Indeed, the private sector component of the industry is smaller than it was over a century ago.[25] Timber worker earnings are less than 1% of total employment related earnings in the region; federal timber generates a fraction of a percent (0.2%) of regional employment.[26]

The timber industry in southeast Alaska has become very small during the 21st Century and concentrated in just two communities. There have been no new sawmills established since 2000 and the overall number of sawmills declined by more than half to eight active operations since 2000.[27] The Forest Service's own data show that there are a total of 51.3 mill jobs in southeast Alaska - 43.1 mill jobs on Prince of Wales Island, 8 mill jobs in Hoonah, and 0.2 mill jobs in the three central southeast Alaska communities of Kake, Petersburg and Wrangell and no jobs in the larger communities of Ketchikan, Juneau and Sitka.[28] 15 MMBF of Tongass timber employed a total of 24 loggers in 2017 - most from out of state.[29]

Despite the industry's absence from most regional communities, the Forest Service recently threatened the central southeast Alaska communities of Kake, Wrangell and Petersburg with economic harm unless the agency succeeded in implementing the pending Central Tongass Project.[30] Petersburg timber employment declined from five to two people in between 1999

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[19] 2016 LRMP FEIS at 3-547-3-689.

[20] *Id.* at 3-152.

[21] *Id.* at 3-613, 3-639, 3-684-685.

[22] *See* 2016 LRMP FEIS PR Folder 763_02_000084 (Niemi 2016, Socioeconomic Comments on Timber Demand at 12).

[23] *Id.* at 14

[24] *See* 2016 LRMP FEIS PR Folder 763_02_000088, documents PNW RB-265 (Zhou 2013)) and PNW RB-266.

[25] *See* 2016 LRMP FEIS at 3-485, Table 3.22-4. 2016 LRMP FEIS PR 769_05_000340 at 10 (Southeast Conference 2014).

[26] *Id.* at 3; *Cf.* 2016 LRMP FEIS at 3-480, Table 3.22-2 (53,145 total jobs); *id.* at 3-485, Table 3.22-4 (federal timber provided 123 jobs) *Id.* at 3-481, Table 3.22-3; Raincoast Data 2017 at 3. *Available at* http://raincoastdata.com/portfolio

[27] Central Tongass Project PR 832_0357 at 2 (Parrent & Grewe 2018)

[28] Central Tongass Project PR 832-0537 at 4, Table 4 (Parrent & Grewe 2018)).

[29] Central Tongass Project PR 832_0614 at 4 (Daniels 2018); https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4326267 https://www.fs.usda.gov/project/?project=51766

[30] Central Tongass Project DEIS at 3-68; 3-316.

and 2007.[31] The two mills in operation in 2006 processed a total of 250 MBF of timber.[32] Forest Service data show that 2017 central southeast Alaska mill production is 34 MBF out of a total 15,544 MBF - or .002% of the mill production in the region - even though the Forest Service has 100 MMBF for sale in the Petersburg and Wrangell Ranger Districts.[33] The Forest Service already has 100 MMBF available in the Wrangell and Petersburg Ranger Districts.[34] The Petersburg economy did fine following the end of the pulp mill era because it is primarily based on commercial fishing.[35]

Further, it is unclear how many federal-timber loggers reside in southeast Alaska communities. Broadly, non-resident employment accounts for a significant amount of jobs in southeast Alaska's resource-dependent sectors.[36] The 2016 Forest Plan FEIS record similarly shows that overall, workers from areas other than southeast Alaska comprise a significant proportion of the natural resource-based work force, and nearly half of the timber related jobs in southeast Alaska are held by non-residents.[37] The number of actual timber workers across the region is so small that reports by the Alaska Department of Labor lump logging jobs with other natural resource-based job categories.[38] And, as noted by Forest Service personnel, the region's large timber sale purchasers import loggers from other states.[39] There is no existing logging company in Ketchikan, requiring Alcan to import workers from elsewhere.[40]

There appears to be little or no workforce interested in or available for the 20th Century-style jobs supplied by the companies that the Forest Service hopes will realize harvest cost savings from this rulemaking. The Southeast Conference reports a "graying" of the regional timber workforce and states that the "workforce is aging/in decline while the new workforce does not have the same work ethic or interest in physical work."[41] But the industry *itself* believes that young people can't or won't do physical work, and the Southeast Conference's report recognizes that "[l]ogging has become a socially unacceptably business to be in."[42] And these jobs can be unpleasant or even dangerous experiences.[43]

In sum, it is hard to understand how the Forest Service's goal of providing harvest cost savings to Viking Lumber and Alcan/Transpac is meaningful to southeast Alaska's socio-economic well-being or rural workforce. These companies function as federal timber brokers for raw log export markets with perhaps some small token amount milled by Viking Lumber to maintain the illusion of local employment. Allowing Viking Lumber and Alcan/Transpac to further liquidate publicly owned forests will harm the economic viability of communities

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[31] *Id.*

[32] *Id.*

[33] *Id.* at 3-315.

[34] *Id.*

[35] 2016 Forest Plan FEIS 3-662.

[36] *Id.* at 3-483.

[37] 2016 LRMP FEIS PR 769_05_000329 at 16-18, 22. (ADOL 2015).

[38] 2016 LRMP FEIS PR 769_05_000344; -000314; -000318; - 000319 (Alaska Department of Labor data).

[39] https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4326267

[40] https://www.fs.usda.gov/project/?project=51766

[41] http://raincoastdata.com/portfolio/southeast-alaska-2020-economic-plan

[42] *Id.*

[43] https://www.osha.gov/pls/imis/establishment.inspection_detail?id=314290701. https://www.ripoffreport.com/reports/phoenix-logging-company/klawock-alaska-99925/phoenix-logging-company-phoenix-loggingphoenix-logging-company-that-does-not-care-about-t-1276625.

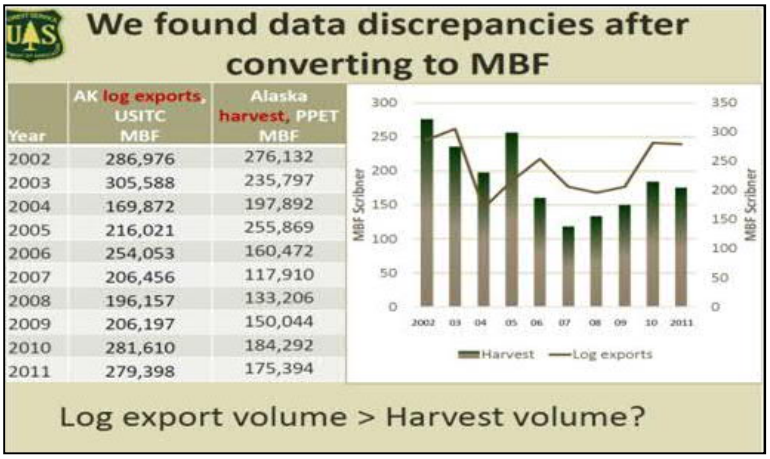
that depend on fisheries and wildlife. The DEIS arbitrarily fails to provide any meaningful information justifying Roadless Rule exemption alternatives and failed to confront significant economic issues and long-term changing local workforce needs.

C. The Alaska Roadless Rulemaking exemption alternatives support the 45th President's trade rivals

Our scoping comments requested that the DEIS address the timber economy decline and disclose that any cost savings benefit realized by Viking and Alcan will accrue to the United States' chief trade rival, China, where large timber sale purchasers send federal timber for processing. It is impossible to reconcile the region's socio-economic well-being with this rulemaking, which would extract timber from inventoried roadless areas mostly for processing in Asian mills under the practice of waiving its generous export policies.

In 2007, the Regional Forester developed a limited interstate shipment policy that it expanded in 2009 to allow timber sale purchasers to export 50 percent of total Sitka spruce and western hemlock sawlog volume.[44] The export policy further reduces the return to the local economy from the public spending on the timber program by diminishing local utilization of timber and local manufacturing employment. The 2016 Forest Plan FEIS makes clear that the Forest Service intends to authorize the export of roughly two-thirds of the timber removed from federal forests as unprocessed logs.[45] According to the Alaska Division of Forestry, raw log exports significantly reduce local employment – a position that recognizes that transportation and logging workers are less likely to be residents than sawmill workers.[46]

Federal timber in 2017 resulted in only 8.3 MMBF of mill production.[47] Given the Petersburg Ranger District's recent decision to authorize 100% raw log export from federal lands on Kuiu Island and longstanding practice of doing so elsewhere, it seems possible that the Forest Service may be planning to work with Alcan to export all of the company's federal timber from inventoried roadless areas to Chinese mills. The willingness to waive export policies designed to protect local businesses, elimination of scenic integrity objectives, and this rulemaking reflect Forest Supervisor Earl Stewart's desperation to meet Tongass Advisory Committee timber targets in order to maintain funding for the timber sale program.[48] The agency's data show that these companies ship so many logs overseas that export volume exceeds the actual timber take (*see image of slide, right*).



[44] 2016 Forest Plan FEIS, Appx. H at H-4-5.

[45] *Id.* at 3-492-3-493, Tables 3.22-8, 3.22-9.

[46] http://forestry.alaska.gov/timber/index.

[47] Central Tongass Project PR 832-0537 at 6, Table 6a (Parrent & Grewe 2018).

[48] Exh. 2 (Stewart 2018).

This job transfer to foreign timber processors should be critical to ascertaining whether Roadless Rule exemption alternatives have any relevance to regional socio-economic well-being. The Central Tongass DEIS for example acknowledges that the majority of Alaska timber goes to China - 76% in 2015.[49] Why is the Forest Service spending millions of dollars providing timber for Chinese mills at a time when the President of the United States is waging war to address unfair trade practices?[50] This means the Forest Service is not only deceiving itself and the public with this project, but perhaps also even the 45th President of the United States, who is waging war on China to stop the very types of trade and manufacturing imbalances perpetrated by Alcan/Tranpac and Viking Lumber.

A log ship being loaded with whole-logs, at a wharf just north of the Viking Lumber mill. This load was exported to China. (Photo by David Beebe, Jan. 2017)

[49] Central Tongass Project DEIS at 3-317.

[50] https://www.nytimes.com/2018/09/17/us/politics/trump-china-tariffs-trade.html

II. Direct and Indirect Taxpayer Losses and Timber Theft:

A. The DEIS fails to explain how this rulemaking will increase timber sale program costs

When the Forest Service promulgated the Roadless Rule, the timber sale program in Region 10 (Alaska) was one of the two worst performing Regions by generating the largest losses per thousand board feet sold, and ten times the taxpayer loss of all other Forest Service Regions combined.[51]

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**

This poor performance primarily reflected higher administrative costs and higher road construction costs.[52] Road construction in Alaska was at least twice as expensive as in the lower 48, with permanent road costs estimated (in 2000 dollars/2018 inflation-adjusted dollars) at $140,000/205,000 per mile and temporary roads at $120,000/175,000 per mile.[53] Alaska, despite its small population, also had the second largest road maintenance backlog in the nation – largely because of the Tongass National Forest.[54]

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.[55] Promulgation of the rule rested largely on the rationale that 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.[56] The Roadless Rule provided the greatest reduction of future maintenance costs for roads, planning costs, overall timber program costs, and other administrative costs.[57]

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[51] Roadless Rule FEIS 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).

[52] *Id.* at 3-303.

[53] *Id.* at 3-324

[54] Exh. 13 (Taxpayers for Common Sense 2004).

[55] Roadless Rule FEIS at 1-15.

[56] *Id.* at 1-5.

[57] *Id.* at 2-36.

The sole economic benefit resulting from this Rulemaking would be "estimated harvest cost savings" of $1 - 2 million for a timber sale purchaser in areas where timber extraction costs would otherwise be prohibitively expensive.[58] The DEIS and Cost-Benefit Analysis arbitrarily fail to recognize additional direct and long-term public costs associated with Roadless Rule exemption alternatives, including higher costs associated with road construction in inventoried roadless areas, costs associated with expanding the timber sale program, and long-term deferred maintenance costs.[59]

Because this rulemaking would undo a policy intended to ensure fiscal responsibility, the agency costs are critical to the pending decision. The Cost-Benefit Analysis references three separate Executive Orders related to costs and savings associated with new and repealed regulations.[60] But nowhere does the analysis candidly confront the cost control rationale underlying the 2000 Roadless Rule or disclose the true costs of public expenditures on the timber sale program that would result from Roadless Rule exemption alternatives.

NEPA's hard look requirement mandates that a cost-benefit analysis be reasonable.[61] This means that the analysis must "fully and accurately" disclose the costs.[62] There must be sufficient information to "balance a project's economic benefits against its adverse effects."[63] The analysis failed to provide the information the public needs to evaluate this rulemaking with respect to timber sale program costs.[64] Further, the Roadless Rule sought to reduce agency costs. The DEIS does not provide any explanation how the agency intends to reduce its backlog, violating the APA.[65]

The Cost-Benefit Analysis admits that the Forest Service spent $12.5 million annually to administer timber sales from 2005-2014, and in turn received $1.1 million in revenue.[66] This loss alone -$11.4 million per year - is alarming. Those loss disclosures rely on a Government Accountability Office (GAO) audit of the program that excludes timber road construction costs and other administrative costs associated with the Forest Service timber sale program.[67] Because of the staggering taxpayer losses associated with the Tongass National Forest's timber sale program, there have been several independent estimates that exceed the amounts shown in the GAO audit. *(See table, next page.)*

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[58] Alaska Roadless Rulemaking Cost-Benefit Analysis at 6.

[59] *Id.* at 37.

[60] *Id.* at 4-5.

[61] 36 C.F.R. § 219.12(g); 40 C.F.R. §§ 1502.14, 1502.16; 40 C.F.R. § 1502.24; *Natural Resources Defense Council,* 421 F.3d at 811-12.

[62] *Sierra Club v. Sigler*, 695 F.2d 957, 975-76 (1983).

[63] *Hughes River Watershed Conservancy*, 81 F.3d at 446.

[64] *Columbia Basin Land Protection Ass'n,* 643 F.2d at 594.

[65] *Organized Village of Kake v. U.S. Dept. of Agriculture,* 795 F.3d 956, 967 (9th Cir. 2015).

[66] Alaska Roadless Rulemaking Cost-Benefit Analysis at 38.

[67] *Id.;* https://www.gao.gov/products/GAO-16-456.

TAXPAYERS for COMMON SENSE

Twenty Years of Timber Losses in the Tongass National Forest 5

Tongass Timber Program: Receipts, Expenses, Losses (FY1999-2018)

($ in millions)

FISCAL YEAR	TIMBER VOLUME SOLD (MBF)	TIMBER RECEIPTS	TIMBER EXPENSES	NET RECEIPTS	TIMBER RECEIPTS: ($2018)	TIMBER EXPENSES ($2018)	NET RECEIPTS ($2018)
2018	9,211	$0.4	$18.1	-$17.7	$0.42	$19.07	-$17.65
2017	20,808	$1.0	$17.8	-$16.7	$1.04	$18.20	-$17.16
2016	13,535	$0.5	$18.5	-$18.1	$0.47	$19.40	-$18.92
2015	22,625	$0.3	$19.7	-$19.5	$0.29	$20.91	-$20.62
2014	105,523	$0.6	$22.4	-$21.8	$0.6	$23.8	-$23.1
2013	15,866	$0.6	$19.7	-$19.1	$0.6	$21.2	-$20.6
2012	52,483	$1.9	$21.5	-$19.6	$2.0	$23.5	-$21.5
2011	44,190	$3.3	$18.0	-$14.8	$3.7	$20.1	-$16.5
2010	45,632	$1.9	$22.3	-$20.4	$2.2	$25.7	-$23.5
2009	22,670	$0.6	$26.4	-$25.7	$0.7	$30.8	-$30.1
2008	5,351	$0.4	$23.5	-$23.1	$0.5	$27.4	-$27.0
2007	30,392	$0.3	$25.1	-$24.8	$0.3	$30.4	-$30.1
2006	85,007	$0.8	$27.9	-$27.1	$1.0	$34.8	-$33.8
2005	65,075	$0.4	$34.4	-$34.0	$0.5	$44.2	-$43.7
2004	87,072	-$4.3	$36.9	-$41.2	-$5.7	$49.1	-$54.8
2003	36,489	$2.0	$31.0	-$29.0	$2.7	$42.3	-$39.6
2002	24,372	$1.3	$33.4	-$32.2	$1.8	$46.7	-$44.9
2001	49,592	$1.8	$35.0	-$33.2	$2.6	$49.6	-$47.1
2000	170,329	$6.9	$23.8	-$16.9	$10.0	$34.7	-$24.7
1999	61,426	$5.3	$33.8	-$28.5	$8.0	$51.0	-$42.9
2009-2018 TOTAL	**362,544**	**$11.0**	**$204.4**	-$193.4	**$12.1**	**$221.8**	-$209.7
1999-2018 TOTAL	**977,649**	**$25.9**	**$509.4**	-$483.5	**$33.8**	**$632.0**	-$598.2

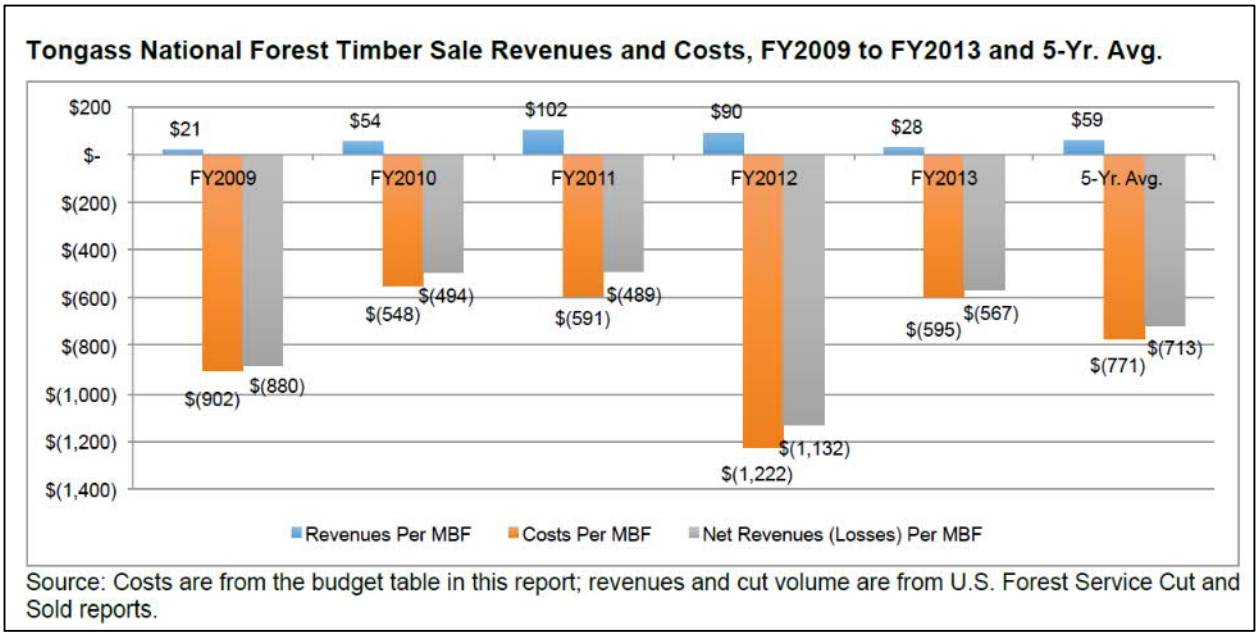
One major problem with the Cost-Benefit Analysis is that the cost disclosures omit the cost of timber road construction. Taxpayers for Common Sense's table (*above*) shows that the Tongass National Forest spent $632 million from 1999-2018 on timber sale preparation, reforestation *and timber roads*.[68] When adding in road construction and maintenance costs, the Tongass National Forest's taxpayer losses rise to $33.8 million a year.[69] Based on these data, the taxpayer losses were $612,000 per million board feet of timber sold over two decades.[70] Headwaters Economics utilizes similar timber budget cost categories and

[68] Exh. 10 (Taxpayers for Common Sense 2019).

[69] *Id.*

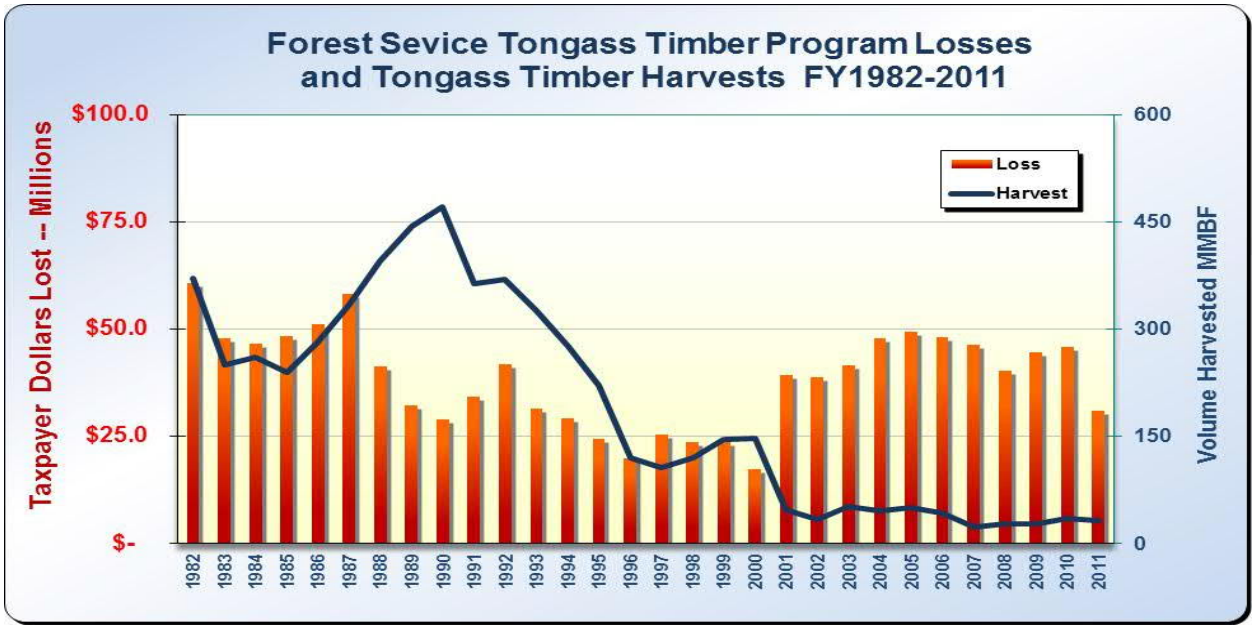
[70] *Id.*

identified an average taxpayer cost of $771,000 per million board feet sold between 2009 and 2013.[71] Federal timber sale expenditures exceeded $22.3 million per year in southeast Alaska.[72] Revenue returns were $1.7 million, or an annual loss of $20.5 million.[73]



Source: Costs are from the budget table in this report; revenues and cut volume are from U.S. Forest Service Cut and Sold reports.

The taxpayer losses caused by the timber sale program are even worse when factoring in "overhead costs" such as the personnel and facility costs.[74]



Taxpayer losses caused by this rulemaking may be even worse because Tongass National inventoried roadless areas are remote, difficult to access thus have higher sale preparation

[71] Exh. 11 (Headwaters Economics 2014).

[72] *Id.*

[73] *Id.*

[74] Exh. 12 (Mehrkens 2016).

costs.[75] A related problem is that the Cost-Benefit Analysis ignores the adverse cost consequences of expanded timber sale acreage: more timber extraction = higher taxpayer costs.[76]

This means that exemption alternatives could add millions of dollars in taxpayer costs needed to subsidize large timber sale purchasers.[77] As noted by Taxpayers for Common Sense, taxpayer costs have declined over the past decade largely because of declines in extraction levels.[78] The current Forest Plan projects nearly half a billion board feet in Tongass National Forest timber removals over the next decade.[79] If fully implemented at current costs, the plan could generate a taxpayer loss exceeding a third of a billion dollars using the Headwaters Economics estimated taxpayer cost of $771,000 per million board feet. Similarly, Taxpayers for Common Sense estimates that the Tongass National Forest losses could increase over the next four years to $180 million based on plans to sell 290 million board feet of timber.[80]

In other words, if Roadless Rule exemption alternatives increase the amount of logging, there will be a corresponding increase in taxpayer subsidies needed to support Alcan and Viking.

B. Culvert Costs to Communities

The Forest Service's budget also is relevant to another taxpayer cost caused by the timber sale program - habitat loss that causes costs to commercial fisheries. The absence of barrier culverts and stream crossings from inventoried roadless areas is an important reason why inventoried roadless areas function as biological strongholds and refuges for salmon – unroaded or low road density watersheds are more likely to support healthy populations.[81] Barrier culverts can block access to habitat and adversely impact salmon stream productivity, by reducing spawning success, impairing juvenile growth and rearing, and obstructing migration. Removing them immediately benefits salmon production because salmon immediately re-colonize the previously inaccessible habitat.

A Roadless Rule rationale related to the significant adverse impacts associated with barrier culverts: reduced habitat connectivity, fish species vulnerability to local extinctions, and reduced ability to respond to changing environmental conditions.[82] In particular, the cumulative impacts of road networks and multiple stream crossings threatened major adverse effects to fish habitat.[83]

The Roadless Rule responded to the Forest Service's concern that its deferred maintenance backlog (which included culvert replacement) was increasing along with rising repair costs and declining funding.[84] At the time, deferred maintenance backlog was $8 billion and the agency could only fund 20 percent of its existing road system.[85] The Tongass National Forest

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[75] Roadless Rule FEIS at 3-303; 2016 TLMP FEIS at 3-441.

[76] Alaska Roadless Rulemaking Cost-Benefit Analysis at 3-29-30; Exh. 10 (Taxpayers for Common Sense 2019).

[77] Roadless Rule FEIS at 3-325, Table 3-73.

[78] Exh. 10 (Taxpayers for Common Sense 2019).

[79] 2016 TLMP FEIS at 3-493, Table 3.22-9.

[80] Exh. 10.

[81] Roadless Area Conservation FEIS at 3-160.

[82] *Id.* at 3-166.

[83] *Id.*

[84] *Id.* at 1-5.

[85] *Id.*

alone accounted for a deferred maintenance backlog was nearly $1 billion (in 2002 dollars).[86] In 2019, the Forest Service estimates its funding/repair ratio is even worse, with a total maintenance backlog of $5.2 billion and a budget of $450 million.[87] These costs and harm to fish and commercial fishing communities dependent on the productivity of Forest Service lands were a primary policy purpose underlying the Roadless Rule.

The DEIS violates NEPA because it fails to take a hard look at the value of inventoried roadless areas in light of the serious fish passage problems throughout areas managed for the timber companies.[88] It also fails to provide a reasoned explanation for reversing a policy protecting fish, and disregards the fish facts, violating the APA.[89]

Roughly two decades ago – at the same time the Forest Service promulgated the Roadless Rule – ADF&G surveyed 60 percent of the Forest Service's roads to assess fish passage problems in the region.[90] This survey showed that 66 percent of the culverts on Class I streams (179) and 85 percent of the culverts on Class II streams (531) were inadequate for fish passage.[91] The Forest Service made an effort to address some of these problems between 1998 and 2006, spending between $1.5 million and $2 million annually to fix roughly 50 sites per year.[92] The culvert repair program ended in 2006 due to funding reductions.[93] Now there are 1,100 culverts blocking over 260 stream miles of fish habitat, with most of them concentrated in the Petersburg and Prince of Wales (Thorne Bay and Craig) Ranger Districts.[94]

The DEIS provides a brief discussion of fish passage obstruction that fails to disclose the current number of blocked culverts, number of stream miles impacted or the average number of blocked culverts addressed each year.[95] It does admit that funding for fixing fish passage problems is "uncertain" and that the lack of funding may harm fish.[96]

Roadless Rule repeal alternatives would add numerous stream crossings within the Prince of Wales and Central Tongass Project inventoried roadless areas, where nearly 800 red culverts already block at least 170 miles of spawning habitat.[97] There are currently 1,100 red culverts across the Tongass National Forest blocking 270 miles of salmon habitat.[98] Taxpayers will need to fund 1,000 miles of road construction to meet Tongass Advisory Committee timber targets which would require at least another 200 culverts.[99] Conservative

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[86] Exh. 13. Taxpayers for Common Sense. 2003.

[87] https://naturalresources.house.gov/download/hanna-autumn-written-testimony.

[88] *See Natural Resources Defense Council v. Forest Service,* 421 F.3d 797, 811 (9th Cir. 2005).

[89] *See Organized Village of Kake v. U.S. Dept. of Agriculture,* 795 F.3d 956, 967 (9th Cir. 2015).

[90] Exh. 15. Flanders, L.S. & J. Cariello. Tongass Road Condition Report. ADF&G Habitat Restoration Division Tech. Rpt. No. 00-7. June 2000

[91] *Id.*

[92] 2008 TLMP FEIS at 3-73.

[93] *Id.*

[94] 2016 TLMP FEIS at 3-117; USDA Forest Service. 2018. Prince of Wales Landscape Level Analysis Environmental Impact Statement at at 3-135 – 3-143; Central Tongass Project DEIS at 3-160.

[95] DEIS at 3-112-113.

[96] *Id.* at 3-148.

[97] Central Tongass Project DEIS at 3-160; Prince of Wales Landscape Level Analysis FEIS.

[98] 2016 TLMP FEIS at 3-117.

[99] DEIS at 3-144; Exh. 15 (there is one culvert per 5 miles of road along Class I streams and one culvert per 2.25 miles of road along Class II streams); https://naturalresources.house.gov/download/hanna-autumn-written-testimony.

estimates indicate that each salmon spawning stream mile is worth $10,000, red culverts cost commercial fishermen $2.7 annually, $27 million over the past decade, and $27 million next decade.[100]

In the Central Tongass Project area, there are 432 existing red crossing blocking 99 miles of habitat.[101] The Forest Service may repair three of those barrier culverts in 2020.[102] On Prince of Wales Island alone there are 447 red pipes.[103] The Forest Service plans to fix fourteen of them in 2020, but only has funding for three (*see photo*).

Roadless Rule exemption alternatives will result in planned and costly road construction in inventoried roadless areas, further increasing the agency's maintenance backlog. The DEIS does not confront the existing maintenance problems. Further, the Forest Service's refusal to fix existing barrier culverts reduces salmon productivity with real costs to commercial fishermen that recur each year. The DEIS and Regulatory Impact Assessment/Cost-Benefit Analysis arbitrarily ignore these real costs to commercial fishermen and never balances them

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[100] Foley, et al. 2012. A review of bioeconomic modelling of habitat-fisheries interactions. In: International Journal of Ecology, Vol. 2012. Doi:10.1155/2012/861635; Exh. 46, Knowler, D. et al. 2001. Valuing the quality of freshwater salmon habitat – a pilot project. Simon Fraser University. Burnaby, B.C.: January 2001; Knowler, D.J., B.W. MacGregor, M.J. Bradford, and R.M. Peterman. 2003. Valuing freshwater salmon habitat on the west coast of Canada. In: Journal of Environmental Management, 69: 261-273 (Nov. 2003). Available at: www.sciencedirect.com/science/article/pii/S0301479703001543.

[101] *Id.* Central Tongass Project DEIS at 3-169.

[102] Exh. 21, 2020 Central Tongass Project Activity List.

[103] USDA Forest Service. 2018. Prince of Wales Landscape Level Analysis Environmental Impact Statement at 3-131, 137, 154.

against the project purpose of a one-time savings of $1 or 2 million for Alcan/Transpac or Viking Lumber.[104]

C. Local Forest managers will sacrifice roadless values

The 2000 Roadless Area Conservation Rule FEIS identifies a concern that "local forest managers will sacrifice roadless values to influential, local commercial interests."[105] This rulemaking would rely on local forest managers to maintain roadless values.[106] The DEIS fails to disclose serious issues regarding the Tongass National Forest's ability to competently manage a timber sale program. The Tongass National Forest (the agency) has a serious bias that is in part an institutional attachment to the timber industry and in part an appetite aimed appropriating taxpayer funds for its money losing timber sale program. These problems create "a substantial financial interest in the harvesting of timber" that causes the agency "to be more interested in harvesting timber than in complying with our environmental laws."[107]

A major part of the agency's financial interest is that its own funds depend on timber program outputs.[108] The desperation to reduce deficit timber sales has motivated decisions to reduce scenic integrity objectives.[109] There are serious questions about whether local officials can make unbiased decisions about conserving roadless values during the timber sale process due to the Forest Service's strong financial interest in the outcome.[110]

Because of these problems, Defenders' scoping comments requested that the Forest Service cease this rulemaking process because of (for example) the Petersburg Ranger District's and Prince of Wales ranger districts' inabilities to administer timber sales, as demonstrated by chronic problems related to timber sale oversight, contractual and appraisal issues. As reported in 1996 by the Public Employees for Environmental Responsibility (PEER), the Tongass National Forest has a long history of permitting timber operators such as Viking Lumber Company to operate in a lawless manner in Southeast Alaska, ignoring timber export violations, scaling fraud, and outright timber theft.[111] For example, ground-truthing the recent Tonka Timber project showed that Viking would clearcut deer winter range prescribed for selective cutting, and expand cutting units beyond the prescribed acreage to whatever size Viking deemed fit.

In 2016, the Washington Office reviewed the Alaska Region's timber sale and administration processes for two Viking Lumber timber sales – the Tonka Timber Sale on Lindenberg Peninsula and recent Big Thorne Project on Prince of Wales Island. The review showed that: (1) instead of improving "forest ecosystem health," the Tongass National Forest allowed Viking to high-grade the most ecologically valuable trees rather than the trees intended for removal to achieve the desired "forest ecosystem health" effects; (2) the Forest Service failed to conduct timber-theft prevention inspections and (3) all monitoring and reports of timber

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[104] Alaska Roadless Rulemaking Cost-Benefit Analysis at 35, Table 6 (claiming that Roadless Rule repeal alternatives will have zero costs to commercial fishermen).

[105] Roadless Rule FEIS at 1-4.

[106] 84 Fed. Reg. at 55524.

[107] *See, e.g. Earth Island Institute v. U.S. Forest Service,* 442 F.3d 1147, 1177 (9th Cir. 2006).

[108] Exh. 2 (Stewart 2017).

[109] DEIS at 3-69-70, 3-295; Exh. 1 (Heithecker 2018).

[110] *See, e.g. Sierra Forest Legacy v. Rey,* 577 F.3d 1015, 1022-23 (9th Cir. 2009)(Noonan, J. concurring)(explaining that "[i]n the instant case the decision-makers are influenced by the monetary award to their agency, a reward to be paid by the successful bidder as part of the agency's plan."

[111] Exh. 3. PEER. 1996. Stealing the Tongass.

removals, etc. were self-reporting by Viking Lumber Company.[112] These problems are a particular concern given that a major purpose of this project is to "improve forest ecosystem health" through timber removal prescriptions implemented by Viking.

PEER's review showed that the Petersburg Ranger District's failure to inspect Viking's activities and require adherence to the timber sale contract for the Tonka sale cost taxpayers $2 million alone – more than twice the amount Viking paid for the timber.[113] On-the-ground operators admit that harvest prescriptions or contract terms were irrelevant to what happened on the ground – they cut only according to Viking Lumber's instructions.[114] Appraisal methods resulted in artificially low appraisal rates for higher value species such as Alaska Yellow Cedar and Sitka Spruce.[115] The Big Thorne Project caused similar taxpayer losses in addition to the usual costs of Tongass National Forest timber sales.[116] And the logging and haul costs were much lower than estimated by the Forest Service, resulting additional windfalls to Viking Lumber.[117] Similar issues have arisen with regard to the Forest Service's second growth timber projects purchased by Alcan/Transpac.[118]

Ironically, after receiving these windfalls, Viking Lumber wants the Forest Service to give it more taxpayer money from the Big Thorne contract because it says the Forest Service economic analysis undercut its profits through poorly estimated tow and haul costs.[119] How can this be? Didn't Viking enter the contract at its own risk after reviewing the cost estimates both during the NEPA and contract process? Even if there was a legitimate problem, the proper procedure is for Viking Lumber is to file a claim and have it reviewed by the Federal Court of Claims which has expertise in settling such claims. But even though the long history of timber theft and maladministration on the Tongass National Forest is disturbing, there is nothing more shocking than Regional Forester Becky Nourse's response to the Washington Office's review of the timber sale program: we should directly give Viking more taxpayer money because they didn't earn as much on the Big Thorne timber sale as anticipated.[120] Wasn't the review aimed at requiring the Forest Service to take steps to eliminate windfalls to Viking, rather than increase them? Given the accountability problems,

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[112] Exh. 5. Washington Office Timber Sale Review; Exh. 6 PEER. 2017. Inspector General Audit Request; *See, e.g.* https://www.peer.org/assets/docs/fs/4_3_17_Timber_Sale_Review.pdf and https://www.peer.org/news/news-releases/forest-service-scalped-on-tongass-timber-sales.html

[113] Exh. 4. Tonka Timber Sale DXPRE Post-Harvest Monitoring Results.

[114] *Id.*

[115] USDA Forest Service Washington Office Activity Review of timber sale administration. sale preparation, stewardship contracting, NEPA, and timber theft prevention. Region 10. June 2016. https://www.peer.org/assets/docs/fs/4_3_17_Timber_Sale_Review.pdf

[116] *Id.*

[117] *Id.*

[118] Exh. 9 (PEER).

[119] Exh. 8. Pendleton 2018.

[120] Exh. 7. Nourse, R. 2017. Memo to Forest Service Chief Tom Tidwell re: Results of the Big Thorne IRTC Supplemental Review. Defenders adds that the Washington Office's review of the Alaska Region's problems included a significant critique of the Forest Service's NEPA contractor, Tetra Tech – the company that refused to analyze the cumulative effects of timber sales in this DEIS in addition to making false statements about the agency maintaining scenic integrity objectives and other errors. The Big Thorne Project planning record, for example, showed that Tetra Tech billed the Forest Service and received compensation for work it did not do, raising further questions about agency and contractor accountability. If there was an error in the analysis, why do taxpayers have to pay? Doesn't Tetra Tech indemnify the Forest Service for its screw-ups? If not, why not? And shouldn't Tetra Tech be responsible for covering Viking's $2 million windfall from the Tonka contract?

how do we know Viking didn't already receive a significant windfall because it got stewardship credits for projects it never completed or only partially completed?

Now, after adding to the taxpayer costs of the program through poor oversight and erroneous cost analyses, the Forest Service would expand this lawless activity into inventoried roadless areas.

In sum, the Tongass National Forest and Alaska Region of the Forest Service lack the institutional capacity and will to administer a large timber sale for a lawless timber operator like Viking. There is no evidence that the agency has taken any steps to correct this problem. Defenders submits that these issues also bear significantly on the agency's ability to conserve roadless values. How can the Forest Service rely on Viking Lumber to apply Forest Plan Standards and Guidelines for other forest values such as den, nest or riparian in the absence of responsible oversight? The DEIS failed to disclose and discuss the Forest Service's present ability and capacity to ensure the accountability of its timber sale program.

III. Comments on Climate Change and affected resources

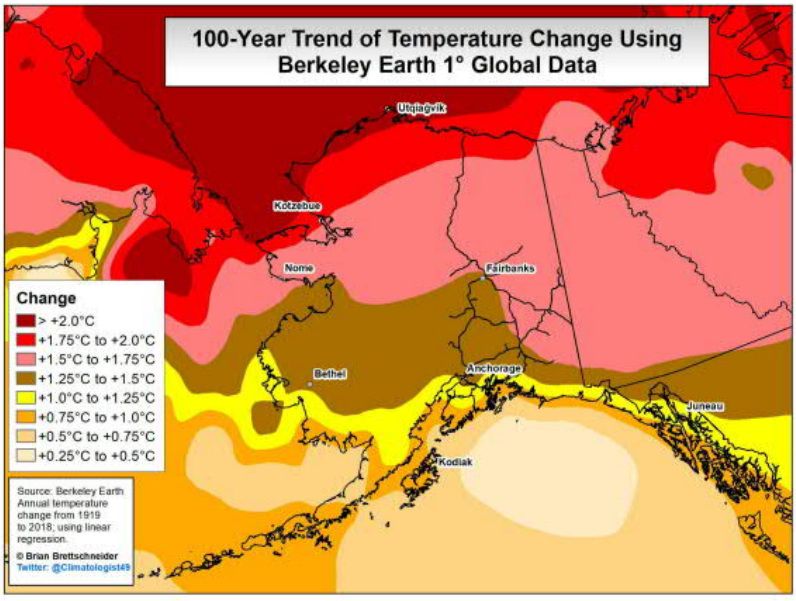
Our scoping comments requested that the DEIS evaluate this project in terms of how logging impacts climate change and consider and disclose threats posed by climate change to project area forest resources.[121] We also requested that the DEIS consider recent and alarming climate patterns. Old-growth logging (in particular) and also second-growth logging contribute to global carbon emissions and climate change has significant ramifications for forests and biodiversity. The DEIS failed to fairly discuss real threats to fish, wildlife and vegetation resources that resulting from a measurably and dramatically warming climate or consider the value of intact roadless areas as buffers against changing environmental conditions. The DEIS acknowledges that the climate is warming in general and that climate models project future warmer, wetter conditions.[122] It is clear that in general the state is warming.

100-year trend in Alaska's annual temperatures (1919-2018)

https://twitter.com/Climatologist49/status/1127318444062281728

Brian Brettschneider @Climatologist49 11 May 2019

100-year trend of annual temperatures (1919-2018) using the Berkeley Earth global temperature data set for Alaska. [Note: uses a different color scale than previously posted map]



[121] We added, for example, that rapidly changing environmental conditions in the region necessitated a discussion of the effect of new clearings and additional roads on abnormal heating and drying of the forest.

[122] DEIS at 3-122.

The DEIS identifies the 2018 National Climate Assessment as the most recent synthesis of climate impacts in Alaska.[123] That document reviewed statewide climate change effects known through 2016.[124] The discussion of the cumulative effects of climate change on forest resources then relies on the analysis in the 2016 Forest Plan FEIS and repeats its conclusions:

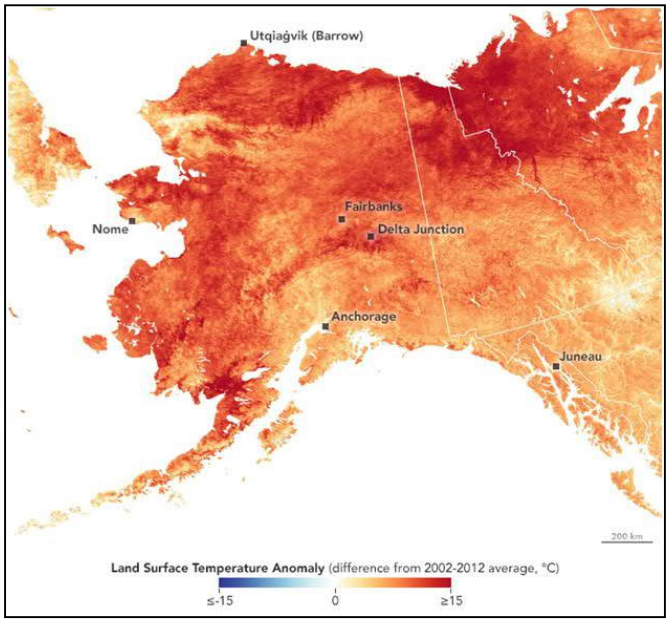
> Climate change could impact the resources currently managed by the Forest Service as well as how the Forest Service manages the Tongass in the future. While there is general agreement among scientists that the climate of Southeast Alaska is warming, there is considerable uncertainty concerning the scope of the effects of climate change on the forests of Southeast Alaska and how best to deal with possible changes to the many resources managed on the Tongass.[125]

The Forest Service reaches this conclusion without considering or identifying obvious recent changes specific to the southeast Alaska environment. NEPA imposes "a continuing duty to gather and evaluate new information" relevant to environmental impacts.[126] The Forest Service cannot rely on the analysis in the 2016 Forest Plan FEIS and must consider recent and ongoing changing environmental conditions in a supplemental EIS.

> When new information comes to light, the agency must consider it, evaluate it and make a reasoned determination whether it is of such significance as to require implementation of formal NEPA filing requirements. Reasonableness depends on the environmental significance of the new information, the probable accuracy of the information, the degree of care with which the agency considered the information and evaluated its impact....[127]

A 2019 update on climate change effects in the state explains that over the past four years southeast Alaska has experienced record temperatures and a prolonged drought.[128] Alaska's record heat wave in 2019 was newsworthy throughout the state and nation, and should have been obvious even to the out of state preparers of this DEIS.[129]

2019 started off as a hot year in southeast Alaska.[130] Alaska Hit With a Hot March (*see map at right*).



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[123] *Id.*

[124] *See, e.g.* Markon et al. 2018.

[125] DEIS at 3-128.

[126] *Warm Springs Dam Task Force v. Gribble,* 621 F.2d 1017, 1023-24 (9th Cir. 1980)

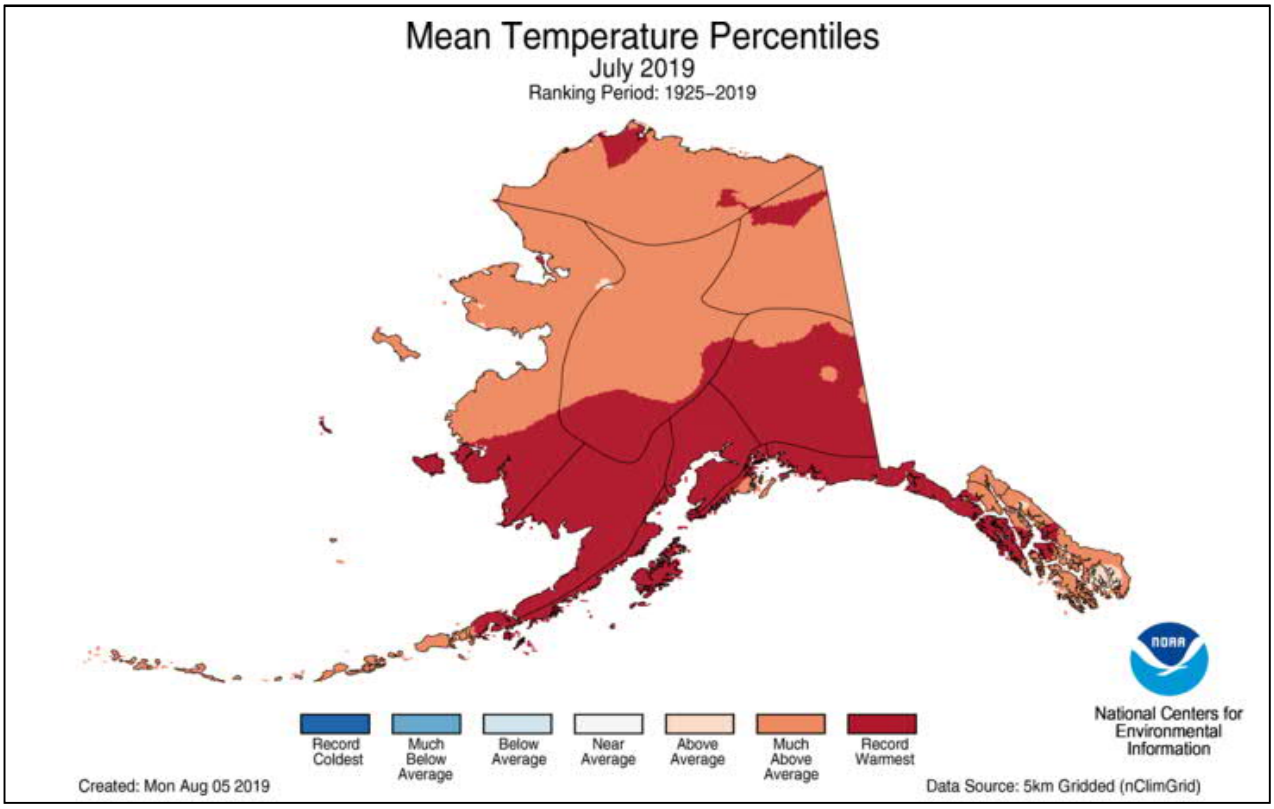
[127] *Id.*

[128] Exh. 14. Thoman, R. & J.E. Walsh. 2019. Alaska's changing environment: documenting Alaska's physical and biological changes through observations H.R. McFarland, ed. International Arctic Research Center, University of Alaska Fairbanks.

[129] https://www.nbcnews.com/news/weather/record-heat-alaska-melts-glaciers-hints-bigger-problems-may-be-n1034766; https://www.alaskapublic.org/2019/08/15/alaskas-summer-heatwave/.

[130] https://earthobservatory.nasa.gov/images/144796/alaska-hit-with-a-hot-march

By July, temperatures reached record levels, as shown here:



These changes are occurring at a rapid rate. It is unreasonable for the Forest Service (and Tetra Tech) to continue to regurgitate analysis that dates back to the 2008 TLMP FEIS. The following sections describe specific resource concerns.

A. Cedar decline; high-grading of large trees and cedar

Our scoping comments requested that you consider cedar and large-tree old-growth high-grading, cedar decline and provide information about regeneration in logged areas. Our scoping comments requested that the DEIS also discuss the Alaska Region's developing strategy for cedar conservation and how it is relevant to this rulemaking. Because of the forest-wide significance and because of the extent of cedar decline, the analysis needed to identify cedar composition and condition in the roadless areas, and consider whether leaving them intact would contribute to the persistence of the species.

The DEIS should have provided enough information to assess the impacts of removing high levels of yellow cedar and how this project fits in with biome-wide red cedar removals. An important purpose of the Roadless Rule was to protect large, undisturbed blocks of habitat for native vegetation.[131] Climate change is "altering conditions for tree recruitment, growth and survival and impacting forest community composition."[132]

The Forest Service has also disproportionately removed high volume and large-tree old-growth, particularly from islands where the agency is planning large timber sales: Etolin Island, Kupreanof Island, Mitkof Island North Central Prince of Wales Island, Wrangell

[131] Roadless Rule FEIS at 1-4.

[132] Exh. 24. Bisbing et al. 2019. From canopy to seed, loss of snow drives directional changes in forest composition.

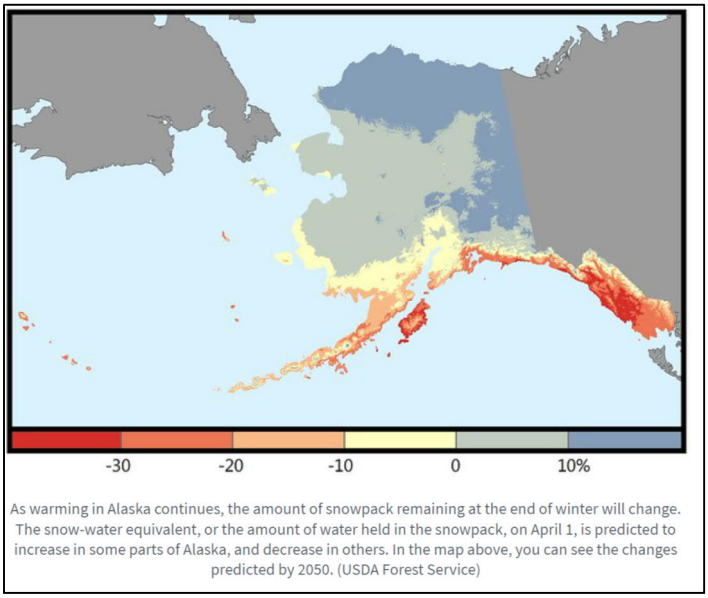
Island, and Zarembo Island.[133] This rulemaking will exacerbate high-grading of both cedar species and large-tree old-growth forest which have the highest importance for biodiversity.[134] The Roadless Rule exemption would remove protections for165,000 acres of old-growth and *59,000 acres of high-volume old-growth*." [135]

In NRDC v. U.S. Forest Service, the court identified an agency failure to provide an analysis regarding the disproportionate harvest of high-volume old-growth.[136] The court noted the special ecological value of these forest types for wildlife and instructed the Forest Service to assess reasonably foreseeable continued high-grading.[137] Importantly, the court directed the agency to consider these issues in programmatic analyses.[138] The DEIS needed to disclose the effect of continued high-grading old-growth forests, whether or how to lessen the cumulative impact of the practice and assess potential impacts of reasonably foreseeable future high-grading both high-volume old-growth and both cedar species.

Cedar high-grading is a significant issue in part because it results in clearcutting large forested areas with ecological effects to old-growth dependent wildlife that range from bear denning habitat to nesting habitat for avian species.[139] As explained in a recent review of British Columbia's logging practices, "the treatment of cedar is the very definition of high-grading: logging one species to the exclusion of another."[140] Throughout British Columbia and southeast Alaska, cedar is one of the few species that generates profits for timber companies.[141]

It is also a significant issue because yellow cedar decline is the most severe tree die-off ever recorded in North America, spanning half a million acres by 2013.[142] Yellow cedar does not regenerate after logging, meaning that lifting Roadless Rule protections will eliminate the species from those areas.[143]

Climate change – particularly a reduced snowpack – caused cedar decline through shifts in the frequency of freezing and thawing events in late winter and reduced snow cover.[144] The Forest Service projects further future reductions in the regional snowpack (*see map at right*).



As warming in Alaska continues, the amount of snowpack remaining at the end of winter will change. The snow-water equivalent, or the amount of water held in the snowpack, on April 1, is predicted to increase in some parts of Alaska, and decrease in others. In the map above, you can see the changes predicted by 2050. (USDA Forest Service)

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[133] DEIS at 3-58; 3-67; 3-105.

[134] *Id.* at 3-55.

[135] Roadless Rulemaking Cost-Benefit Analysis at 38.

[136] *NRDC v. U.S. Forest Service,* 421 F.3d at 815.

[137] *Id.*

[138] *Id.*

[139] Exh.21. Nelson, J. Vanishing Heritage: the loss of ancient red cedar from Canada's rainforests.

[140] *Id.*

[141] *Id.*

[142] Hennon, P.E. 2012.; Hennon, P.E. & D. Wittwer. 2013.

[143] *See* Prince of Wales Landscape Level Analysis FEIS at 3-337 (yellow cedar comprises less than 1 percent of second growth forests); Central Tongass Project DEIS at 3-62.

[144] Exh. 13.

Yellow and red cedar comprise 9.7 and 5.9% of the Tongass National Forest's growing stock, respectively but timber companies have removed these species disproportionately.[145] Their 2007 respective values - $140/MBF and $116/MBF vastly exceeded the $4/MBF value of the Forest's most prevalent species, western hemlock.[146] Both cedar species are more prevalent in southern and central southeast Alaska where the agency implements its timber sale program.

The recent Big Thorne and Logjam sales on Prince of Wales Island, for example, targeted the two cedar species as 34 percent and 28% of the sale – at least double or more those species' actual presence on the Forest. The Prince of Wales Landscape Level Analysis timber sales target cedar, which comprises 29% of project's timber volume.[147] Timber companies have already removed old-growth from 380,950 acres on the island, including 192,275 non-federal acres and 80,445 acres over the last 30 years.[148] Sealaska Corporation and the Alaska Mental Health Trust are major landowners there, and will likely log another 93,980 acres of old-growth on the island, under State of Alaska regulations which do not limit clearcut size.[149]

Fresh non-federal cut on Prince of Wales. Credit: Colin Arisman.

[145] Wilson, B. 2002. Cedar harvest on the Tongass National Forest. (Unpublished). Alaska Region Forest Management.

[146] Housely, R., K. Vaughn & S. Alexander. 2007. Timber market analysis of the effects of export and interstate commerce on timber sale value and volume. Forest Service, Region 10.

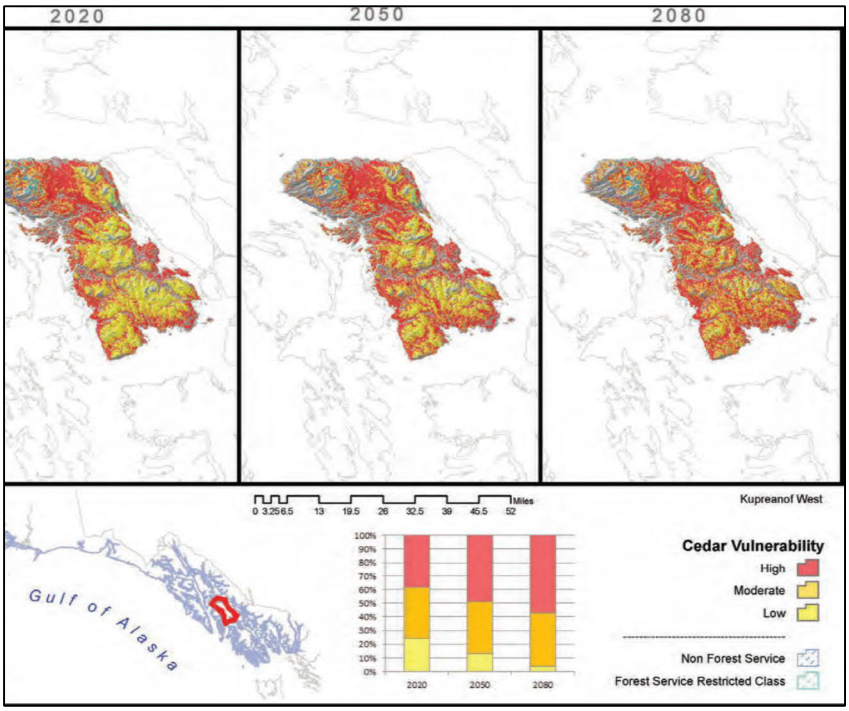
[147] Prince of Wales Landscape Level Analysis FEIS at 3-111.

[148] *Id.* at 3-361.

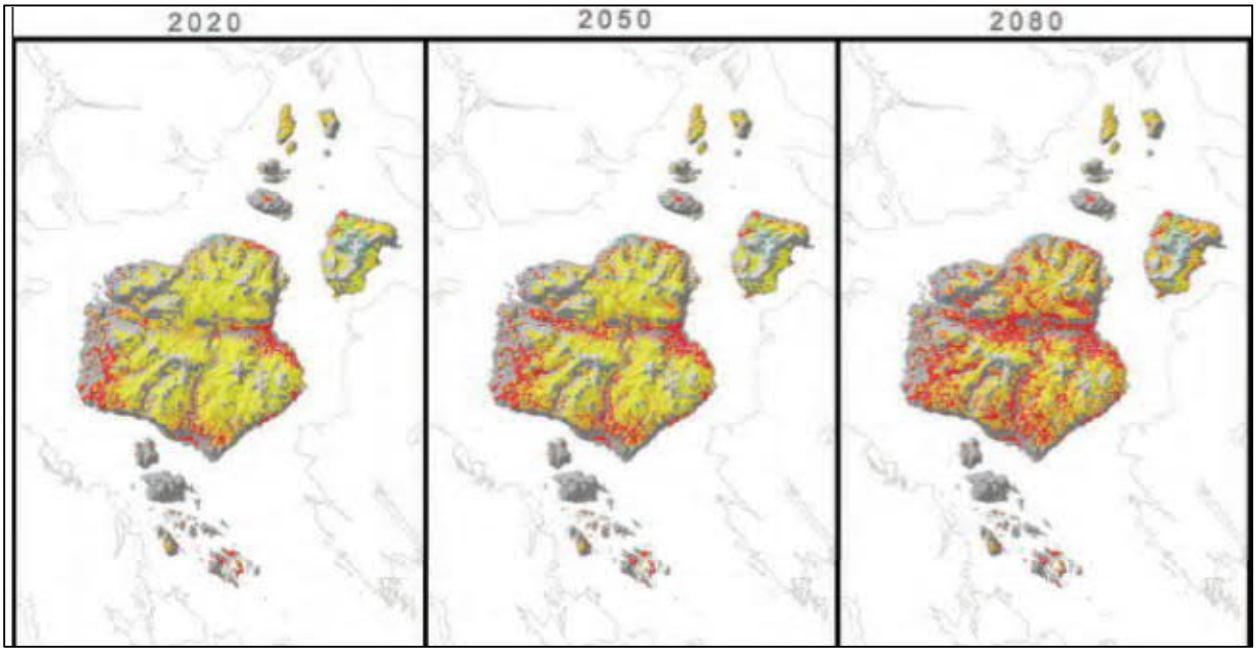
[149] *Id.*

The DEIS mostly ignores cedar decline except for a few scattered paragraphs, even though the Forest Service has mapped and projected current and future levels of cedar decline and could provide a meaningful analysis. There is available data to show where yellow cedar on central southeast Alaska islands has the highest likelihood of persisting over the next 80 years, and where there is high risk of further decline.[150]

Western Kupreanof Island, for example, contains 6.6 percent of the yellow cedar acreage in southeast Alaska, and 12.1 percent of the acreage in decline. (*See maps at right*)



Will there be any yellow cedar left of Zarembo Island if the Forest Service proceeds to add inventoried roadless areas to the Central Tongass Project Timber Analysis Areas?



This rulemaking would worsen high-grading of cedars and of large-tree and high-volume oldgrowth forest. Climate change is threatening successful tree regeneration by causing unprecedented climatic and disturbance conditions and changes in forest community composition.[151] The DEIS fails to inform the public whether the agency expects the species to persist in one portion of an area or another or consider cedar decline with an analysis

[150] Central Tongass Project PR 832_0539.

[151] Exh. 24 (Bisbing et al. 2019).

describing the impact in a way that informs whether or not to remove Roadless Rule protections from areas where the species persists. This broad level of analysis is not acceptable under NEPA.

B. Climate Change Impacts and Fisheries

Southeast Alaska communities are heavily dependent on the salmon fishery, which supports 1 in 10 jobs in the region.[152] In 2017, 1,784 gillnet, seine and troll salmon permit holders harvested 50.1 million salmon in southeast Alaska, generating an ex-vessel value of $169 million.[153] The Tongass National Forest produces 95% or more of southeast Alaska's pink salmon harvest taken mostly by seine fisheries and roughly two-thirds of the coho harvest taken mostly by troll fisheries.[154] The troller fleet is the second largest fleet in the state, with over 1,000 active permit holders, 80 percent of whom are Alaska residents.[155] These earnings employ thousands of processing workers and support nearly every business in every community, with a total economic impact estimated at $700 million annually.[156]

Defenders' scoping comments requested that the DEIS candidly discuss and disclose the current status of southeast Alaska's salmon populations and the risks presented by the proposed action such as the cumulative impacts of climate change and logging. For example, a 2009 study, "Global climate change and potential effects on Pacific salmonids in freshwater ecosystems of southeast Alaska" identified numerous climate change effects, including likely risks of pre-spawner and egg and embryo mortality events for pink and chum and degraded sockeye lake habitat and juvenile coho rearing habitat.[157] The article noted that the "most pervasive anthropogenic effect" on salmon habitat is timber extraction.[158]

Habitat conservation – such as maintaining intact roadless areas – will be important to the survival of sustainable fishery populations as changes in climatic conditions "will impose greater stress on many stocks that are adapted to present climatic conditions."[159] In particular, there are risks to freshwater habitat associated with changes in disturbance events, thermal regimes, precipitation changes and lower summer stream flows and experts believe "[i]mpacts to salmon populations in specific streams and rivers are likely" and thus recommend "considering *thermal refugia for salmonids where possible*."[160] Bryant's conclusions are consistent with expert findings that anticipate major hydrological changes, with significant consequences for ecosystem productivity.[161]

The discussion of impacts to fish in the DEIS provided the boilerplate language that the Forest Service has utilized since 2008 to avoid confronting climate change impacts on fish:[162]

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[152] http://www.thealaskatrust.org/seabank-annual-report-web

[153] *Id.*

[154] *See* Exh. 18 Johnson, A.C., J.R. Bellmore, S. Haught, and R. Medel. 2019. Quantifying the monetary value of Alaskan National Forests to commercial Pacific salmon fisheries.

[155] *Id.*

[156] *Id.*

[157] Bryant 2009. Global climate change and potential effects on Pacific salmonids in freshwater ecosystems of southeast Alaska.

[158] *Id.*

[159] Haufler, J. 2010.

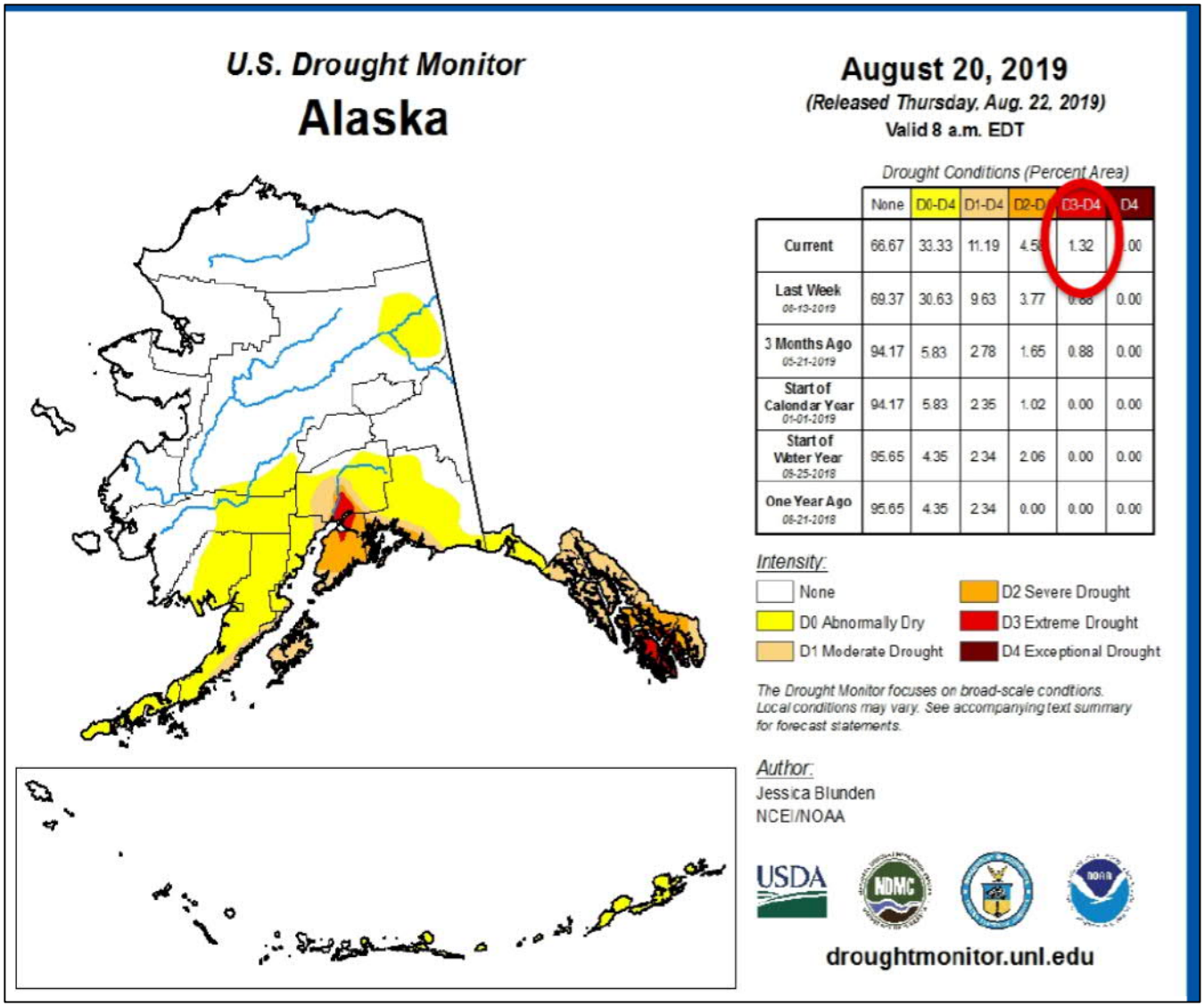
[160] *Id.*

[161] *Id.*

[162] DEIS at 3-119; 2008 TLMP FEIS at 3-93.

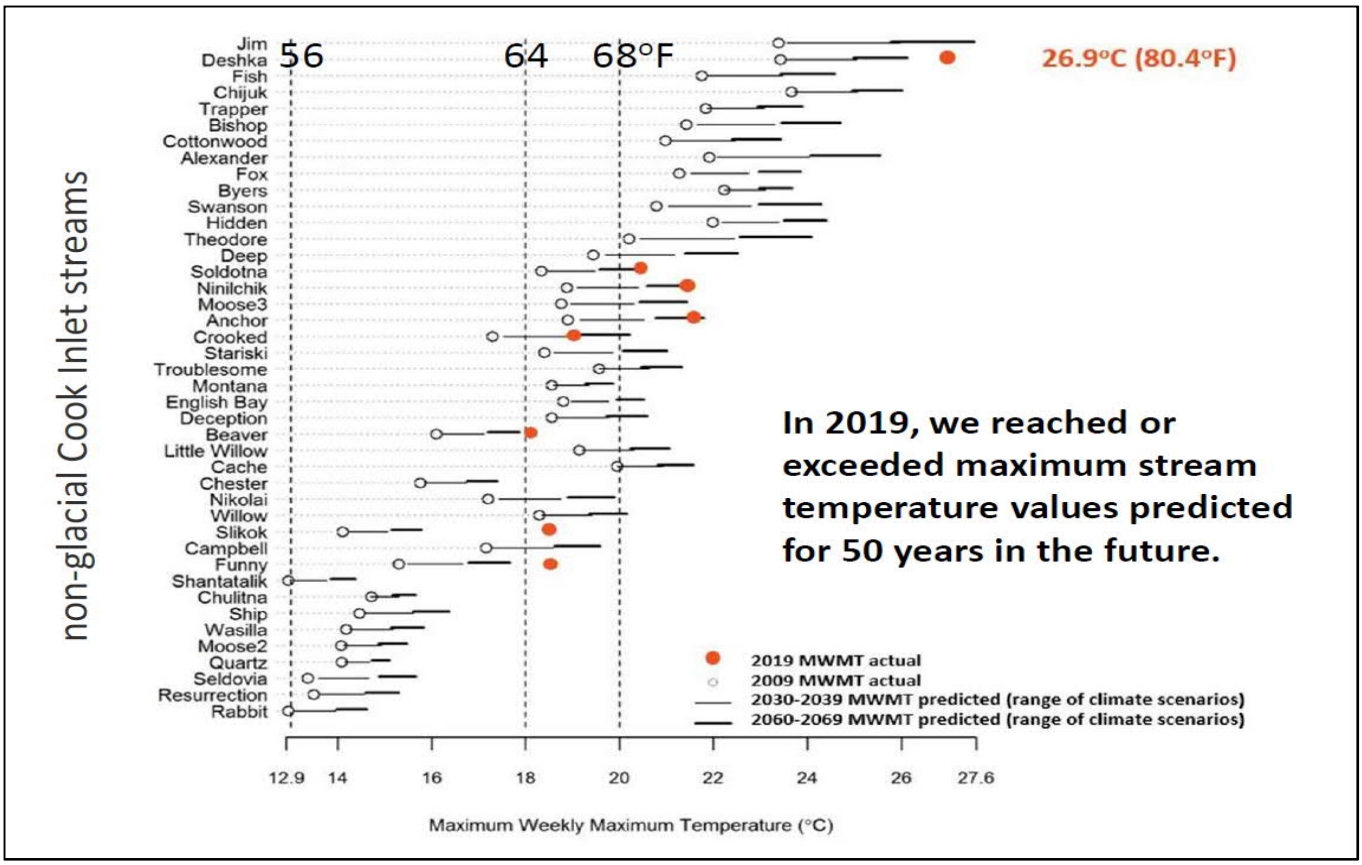
> … there is general agreement that the climate is warming, precipitation will increase in the fall and winter but decrease in summer in snow- and rain-dominated watersheds. However, there is uncertainty surrounding specific predictions and even more uncertainty regarding the effect of these changes on resources including fish. The cumulative effects of climate change are not clear….

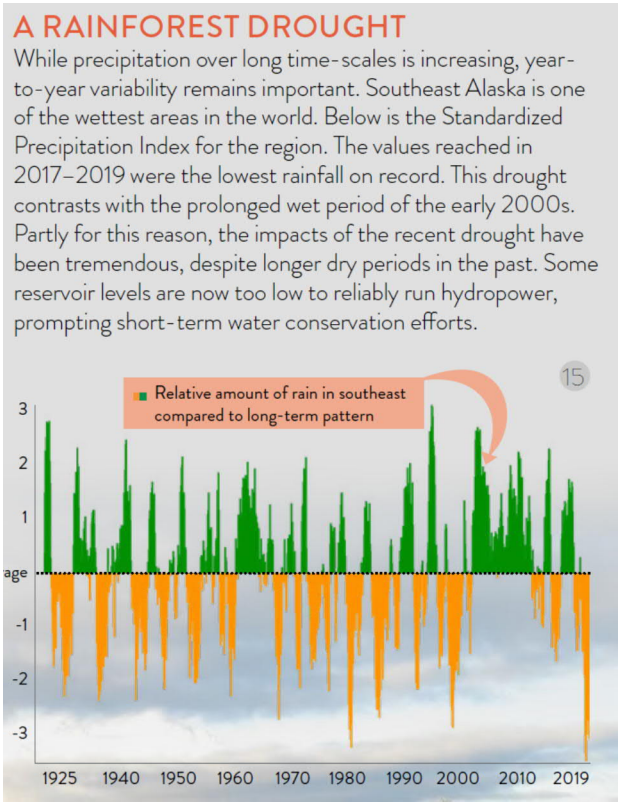
It is unreasonable to continue ignoring current environmental changes in NEPA analyses. Southeast Alaska - particularly areas of planned timber sales, has just experienced a prolonged drought with record low rainfall.



The Forest Service either has quit monitoring stream temperatures in southeast Alaska or is failing disclose the results. But 2019 stream temperatures elsewhere in Alaska far exceeded the 13° Celsius (56° Fahrenheit) threshold for fish, in some cases reaching 80°.[163] (*See chart and first panel, next page.*)

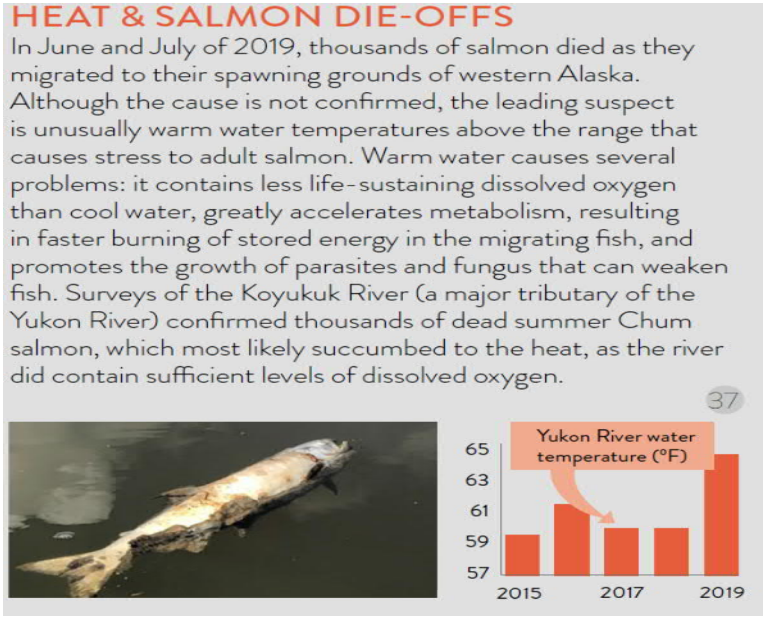
[163] Exh. 17 (Mauger 2019).





See Exhibit 14.[164]

Warm stream temperatures cause pre-spawning mortality, *as shown here*:



[164] Exh. 14. (Thoman, R. 2019).

It is unreasonable to ignore the cumulative effects of logging, road density and climate change on salmon. There are strong negative correlations between logging road density, timber extraction and salmon productivity.[165] For example, NMFS has found that logging degrades salmon habitat by ...

> "... removal and disturbance of natural vegetation, disturbance and compaction of soils, construction of roads and installation of culverts. Timber harvest activities can result in sediment delivered to streams through mass wasting and surface erosion that can elevate the level of fine sediments in spawning gravels and fill the substrate interstices inhabited by invertebrates. The most pervasive cumulative effect of past forest practices on habitats for anadromous salmonids has been an overall reduction of habitat complexity from loss of multiple habitat components. Habitat complexity has declined principally because of reduced size and frequency of pools due to filling with sediment and loss of LWD (large woody debris).... As previously mentioned, sedimentation of stream beds has been implicated as a principal cause of declining salmonid populations throughout their range."[166]

Forest Service planned timber sales will occur in areas most at risk to these cumulative effects. There is substantial deferred maintenance and chronic sedimentation affecting fish habitat throughout Prince of Wales Island.[167] The Forest Service would add 122 miles of new road construction within 300 feet of fish habitat, cause peak flow rate increases in nearly a quarter of the project area watersheds, increase risks of sedimentation and low summer stream flows, and add 436 stream crossings.[168] In the Central Tongass Project area, there are 432 existing red crossing blocking 99 miles of habitat, and the Forest Service proposes 700 new stream crossings, including 128 on anadromous streams.[169] For some watersheds, the agency proposes to remove between 20 and 40 percent of existing forested habitat.[170] As with the Prince of Wales timber project, there are a number of watersheds already in poor condition, with existing high risks of peak flows.[171] And these are just the issues on federal land. Non-federal logging by Sealaska or for the purpose of improving mental health in Alaska may have even more cumulative impacts on freshwater bodies, estuaries, sedimentation and microclimates, as suggested by this photo.

Photo credit: Colin Arisman

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[165] Halupka et al 2000.

[166] Endangered and Threatened Species: Threatened status for Southern Oregon/Northern California Evolutionarily Significant Unit (ESU) of coho salmon. 62 Fed. Reg. 24588 at 24593 and 24599. May 6, 1997.

[167] 2003 Tongass Roads Analysis; Big Thorne FEIS at 3-285-286.

[168] USDA Forest Service. 2018. Prince of Wales Landscape Level Analysis Environmental Impact Statement at 3-135 – 3-143.

[169] *Id.* Central Tongass Project DEIS at 3-160.

[170] *Id.* at 3-160.

[171] *Id.* at 3-171-176.

It is unreasonable to assume that allowing timber entries into remaining roadless refugia would be harmless to salmon fisheries in light of rapidly changing environmental conditions. 2016 was a pink salmon fishery disaster for southeast Alaska.[172] Across southeast Alaska the 2018 pink salmon run failed to meet even low expectations, with a 7.3 million fish harvest - the lowest since 1976 and over ten million fewer fish than fishermen caught during the 2016 disaster year.[173] In 2017, pink salmon harvests in some of the traditionally most productive areas around eastern Prince of Wales Island 5 percent of the average harvest for that area.[174] These numbers are alarming. Now, ADF&G's 2020 pink salmon forecast notes drought conditions and marine heat waves as likely causes of low juvenile pink salmon abundance indices and its 2020 forecast for a 12 million fish harvest - a third of the recent decadal average:[175]

Forecast Discussion:

The 2020 harvest forecast of 12 million pink salmon is approximately one third of the recent 10-year average harvest of 35 million pink salmon. A harvest near this forecast would also be approximately 60% of the average even-year harvest since 2006. The 2019 peak June–July juvenile pink salmon index value (1.20) ranked 21st out of the 23 years that SECM information has been collected. Pink salmon harvests associated with juvenile indices below a value of 2.0 have ranged from 8 to 37 million fish (mean=21 million fish).

The low juvenile abundance index in 2019 was not unexpected. Pink salmon escapements in the parent year (2018) were very poor throughout northern Southeast Alaska inside waters and the escapement goal was not met in that subregion, which may have resulted in below optimal egg deposition. Escapement and harvest of pink salmon in the Northern Southeast Inside subregion have been very poor since 2012 and the 2020 forecast indicates this pattern is likely to continue. Pink salmon escapement goals for the Southern Southeast and Northern Southeast Outside subregions were met in 2018, but harvests were well below average. The low juvenile abundance index in 2019 may also indicate that brood year 2018 pink salmon experienced poor freshwater and/or early marine survival. It is possible that drought conditions present in Southeast Alaska from the parent year 2018 spawn through the spring of 2019 reduced spawning success or negatively impacted overwinter survival of developing juvenile salmon, but the exact reasons for the low juvenile abundance are not known. Juvenile pink salmon caught in the 2019 SECM survey trawls, however, were among the largest (in length) in the 23-year time series (Figure 3) and were in good condition, which indicates favorable nearshore marine conditions in the spring. The size of juvenile pink salmon was similar to the large size of juveniles observed during the marine heat wave of 2014–2016 (Figure 3) and returns from those juvenile years were all below average.

Like many recent years, a potential source of uncertainty regarding the 2020 pink salmon return is the anomalously warm sea surface temperatures in the Gulf of Alaska in 2019. Warm temperatures that persisted throughout the Gulf of Alaska from fall 2013 through much of 2016 (Bond et al. 2015; Di Lorenzo and Mantua 2016; Walsh et al. 2018) returned in 2018 and strengthened in 2019. Compared to sea surface temperatures since 1997, when NOAA first started the SECM project, surface temperatures in the Gulf of Alaska in 2019, immediately offshore of Southeast Alaska, were the warmest of the time series in July, the 4th warmest in August, and 3rd warmest in September[1]. Sea surface temperatures were well above average across the entire Gulf of Alaska during that time[2]. Pink salmon that went to sea from 2014 to 2018 returned in numbers below expectation and below recent odd- and even-year averages. The impact of warm sea surface temperatures on the survival of pink salmon that went to sea in 2019 is unknown and adds uncertainty to the forecast.

The Forest Service's 1995 Anadromous Fish Habitat Assessment made numerous findings and recommendations related to reducing the impacts of industrial clearcut logging on salmon habitat in southeast Alaska. The Assessment explained that:

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[172] https://www.kfsk.org/2018/08/29/southeast-pink-salmon-catch-lowest-in-over-four-decades/

[173] https://www.kfsk.org/2018/08/29/southeast-pink-salmon-catch-lowest-in-over-four-decades/

[174] Exh. 27. ADF&G 2018.

[175] Exh. 28, ADF&G 2019.

> The cumulative effects of frequent disturbances in the Pacific Northwest have been shown to substantially reduce the quality of freshwater fish habitats resulting in negative consequences for species, stocks, and populations of fish that depend on them, even if coniferous cover is left in buffer strips along the fish-bearing streams. Fish-bearing streams represent only a small portion of stream mileage in any watershed. Because recovery of fish habitat from the effects of extensive logging in a watershed may take a century or more, recovery may never be complete if forests are clearcut harvested and watersheds are disturbed extensively on rotation cycles of about 100 years. Few refuges remain in a watershed that fish can use during such widespread, intense, and recurrent disturbances.
>
> …Should freshwater habitats be degraded for long periods, salmon and steelhead stocks will eventually be confronted simultaneously with low marine productivity and degraded freshwater habitat. The likely result of such double jeopardy could be high, long-term risk of extinction. [176]

Given current trends in pink salmon production, the proposed Rule exemption would present the "double jeopardy" situation described above. It would be reckless to proceed with this rulemaking because of likely long-term adverse impacts on the salmon themselves and salmon dependent species such as bears and commercial fishermen.

The Forest Service needs to produce a revised DEIS that considers climate change impacts on all roadless values and inventoried roadless area resources.

IV. Wildlife habitat impacts

Defenders' scoping comments requested that the Forest Service analyze roadless values for wildlife, consider population trends and provide a reasonable level of location specific information. This analysis needed to provide more than a quantitative approach to measuring productive old growth losses at various scales. Instead, there needs to be consideration of specific inventoried roadless area habitat features that contribute to wildlife viability and abundance, particularly in light of the high degree of natural fragmentation combined with fragmentation in roaded portions of the Tongass.

The DEIS instead provided a generalized analysis admitting that timber extraction in newly opened areas and associated road construction or reconstruction could decrease the value of these roadless areas to wildlife through increased habitat fragmentation and reduced landscape connectivity, with additive effects on species vulnerable to overharvest and wide ranging species that require large expanses of roadless refugia. But then the Forest Service deferred analysis of the magnitude of the effects to project level analyses. There are multiple problems with this approach. There is a heightened need for roadless refugia in the areas where the agency plans landscape-scale clearcut logging.

A. The Forest Service must analyze the cumulative impacts of Roadless Rule exemption alternatives and planned logging on wildlife

The Forest Service has completed or initiated the three timber projects it intends to use over the next fifteen years to meet the Tongass Advisory Committee's (TAC) timber targets pursuant to the 2016 Forest Plan: the Prince of Wales Landscape Level Analysis, Central Tongass Project and South Revilla Integrated Resource Project. Together, these three massive timber sales will remove nearly a billion board feet of timber from over 60,000 acres.

Under any of the Roadless Rule repeal action alternatives, the Forest Service would increase the scale of clearcutting and road construction under the Prince of Wales Landscape Level

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[176] U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

Analysis.[177] The Prince of Wales Island project alone would remove nearly two-thirds of a billion board feet of timber over the next fifteen years.[178] The Prince of Wales Island project is monstrous compared to the recent Big Thorne Project, which was until now the largest Forest Service timber sale in decades and authorized Viking Lumber to eliminate the last remaining stands and travel corridors in the central part of the island.[179]

Timber companies have already logged 380,950 acres on the island, including 80,445 acres over the last 30 years, with another 93,980 acres of non-federal old-growth at risk in the near future.[180] The Forest Service has already considered timber entries into Prince of Wales Island inventoried roadless areas, but deferred those entries pending this rulemaking.[181] The Forest Service has also initiated planning road construction activities in the islands inventoried roadless areas.[182] The island's deer population supports substantial and increasing hunting effort, causing concerns among subsistence users.[183] The 2017 deer season was the worst in memory for local hunters, causing increased concern about the impacts of clearcuts and wolves. Some residents are now questioning Forest Service plans to sacrifice the island to keep Viking Lumber in operation, and believe "there's a limit on how much you can donate to the cause."[184] The DEIS needed to fully analyze implications of removing Roadless Rule prohibitions on this island by providing information about deer population trends, hunting effort, and the importance of island deer for both island residents and residents of other islands who harvest Prince of Wales Island deer due to deer deficits elsewhere.

For the pending Central Tongass Project, the Forest Service has also already planned to maximize the acreage available for clearcutting and road construction by authorizing entries into inventoried roadless areas.[185] Again, the agency deferred action on these entries pending the completion of this rulemaking.[186] The DEIS fails to mention the planned Forest Plan amendment to reduce scenic integrity objectives as part of this project, and instead assumes those objectives would provide extensive habitat that provides connectivity and contributes to the Conservation Strategy. But the Central Tongass Project would authorize the timber companies to clearcut in an undisclosed portion of 12,084 acres of formerly protected low elevation important habitat near the beach fringe.[187] The failure to consider this project-specific dismantling of the Conservation Strategy and similar efforts illustrates why this DEIS needed to provide more location specific analysis.

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[177] USDA Forest Service. 2018. Prince of Wales Landscape Level Analysis Environmental Impact Statement at 2-36. R10-MB-833e. U.S. Forest Service, Alaska Region. October 2018. P. 3-66 – 24 IRAs.

[178] *Id.* at 2-23, 27.

[179] *Id.*

[180] *Id.* at 3-361.

[181] *Id.* at 2-36.

[182] https://naturalresources.house.gov/download/hanna-autumn-written-testimony.

[183] Exh. 31 (ADF&G 2015).

[184] https://www.alaskapublic.org/2017/12/18/wolves-and-logging-both-cut-into-prince-of-wales-deer/.

[185] USDA Forest Service. 2019. Central Tongass Project Draft Environmental Impact Statement Vol. 1 at 3-26. R10-MB-832a. U.S. Forest Service, Alaska Region. July 2019. There are 43 IRAs in the CTP project area (p. 3-51).

[186] *Id.* at 3-26.

[187] *Id.* at 3-69-3-70.

The only other old-growth timber sale project proposed over the next decade is the South Revilla Integrated Resource Project, which also includes plans to reduce scenic integrity objectives.[188] Roadless Rule repeal alternatives would vastly expand the acreage available for clearcutting and road construction associated with that project.[189]

A major flaw with the DEIS is the failure to consider cumulative impacts to wildlife caused by Roadless Rule exemption alternatives combined with these projects, which represent planned logging for the next decade. NEPA requires that agencies consider cumulative actions in determining the scope of environmental impact statements, meaning actions "which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement."[190] As explained by the Supreme Court, under NEPA, "proposals for … actions that will have cumulative or synergistic environmental impact upon a region … pending concurrently before an agency … must be considered together."[191]

In general, the 9th Circuit has explained that:

> [P]rojects need not be finalized before they are reasonably foreseeable. NEPA requires that an EIS engage in reasonable forecasting. Because speculation is implicit in NEPA, we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as a crystal ball inquiry.[192]

In the specific context of requirements to evaluate pending plans for timber extraction, in Blue Mountains Biodiversity Project v. Blackwood, the 9th Circuit explored the Forest Service's refusal to evaluate the cumulative impact of multiple logging projects occurring in the same watershed in the NEPA analysis for a salvage logging project.[193] The logging projects would have logged 40 - 55 MMBF of timber from the same watershed, involve steep slope logging and entail 20 miles of road construction.[194] The court found that the projects were reasonably foreseeable and required a cumulative impacts analysis based on prior development of the projects as part of a forest recovery strategy and prior disclosure of sale names, quantities and timelines prior to the release of the NEPA analysis for the project.[195] The 9th Circuit also reviewed a similar case in 2015, and determined that the pending timber project was reasonably foreseeable based on BLM's "focus on details" so that "many elements of the Cottonwood project were already firmly established."[196] As explained in Natural Resources Defense Council v. U.S. Forest Service, "where several foreseeable projects in a geographical region have a cumulative impact, they must be evaluated in a single EIS.[197] The

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[188] https://www.fs.fed.us/sopa/components/reports/sopa-111005-2019-10.pdf; https://www.fs.usda.gov/nfs/11558/www/nepa/108739_FSPLT3_4403638.pdf.

[189] https://www.fs.usda.gov/nfs/11558/www/nepa/108739_FSPLT3_4403638.pdf.

[190] 40 C.F.R. § 1508.25

[191] *Kleppe v. Sierra Club,* 427 U.S. 390, 410 (1976); *see also Natural Resources Defense Council v. Forest Service,* 421 F.3d 797, 815 (9th Cir. 2005).

[192] *N. Plains Res. Council, Inc. v. Surface Transp. Bd.,* 668 F.3d 1067 (9th Cir. 2011)(citations and internal quotation marks omitted).

[193] *Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1215 (9th Cir. 1998).

[194] *Id.*

[195] *Id.*

[196] *Soda Mt. Wilderness Council v. U.S. BLM,* 607 Fed. Appx. 670, 672 (9th Cir. 2015).

[197] *Natural Resources Defense Council v. Forest Service,* 421 F.3d 797, 815 (9th Cir. 2005)("where several foreseeable projects in a geographical region have a cumulative impact, they must be evaluated in a single EIS").

Forest Service must prepare a revised DEIS that provides more location-specific information about wildlife species.

B. The DEIS failed to provide a detailed analysis of impacts to Sitka black-tailed deer and deer winter range.

We have significant concerns about the lack of high value winter deer range remaining on the Tongass, particularly in central and southern southeast Alaska and consequently the impacts of this Rulemaking on remaining deer habitat. Many of the inventoried roadless areas opened up to clearcutting abut past clearcuts where canopy closures are now or will soon be occurring. Logging in inventoried roadless areas may also further fragment or directly remove the little remaining winter deer habitat. Many southeast Alaska islands and mainland are already heavily fragmented and contain large portions of what is currently, or soon to be, unsuitable deer habitat due to canopy closure in the extensive created openings and second-growth stands.

In the Alaska National Interest Lands Conservation Act (ANILCA), Congress announced the following policy: "[c]onsistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of public lands in Alaska is to cause the least adverse impact possible on rural residents who depend on subsistence uses of the lands."[198] Congress intended for federal agencies to incorporate a factor of safety into resource management decisions:

> The committee intends the phrase "the conservation of healthy populations of fish and wildlife" to mean the maintenance of fish and wildlife resources and their habitats in a condition which assures stable and continuing natural populations and species mix of plants and animals in relation to their ecosystems, including recognition that rural residents engaged in subsistence uses may be a natural part of that ecosystem; minimize the likelihood of irreversible or long-term effects of such populations and species; and ensures maximum practicable diversity of options for the future. The greater the ignorance of resource parameters, particularly of the ability of a population or species to respond to changes in its ecosystem, the greater the safety factor must be.[199]

The Forest Service has failed to meet this standard for decades by disproportionately removing deer winter range. Most of the logging in southeast Alaska occurred on low-elevation, south facing slopes favored by deer. The DEIS identifies declines in deer habitat capability and admits that there will be long-term reductions in carrying capacity and long-term population declines.[200] These disclosures alone warrant maintain intact inventoried roadless areas to provide for rural subsistence uses. And the analysis needed to take the extra step of analyzing those reductions in areas with planned timber sales, and consider actual population trends.

There is a lack of high value winter deer range in the Petersburg and Wrangell Ranger Districts - whether on Mitkof, Kupreanof or Wrangell Island. Many of the proposed timber analysis areas abut past clearcuts where canopy closures are now or will soon be occurring. Most central southeast Alaska islands are already heavily fragmented and contain large portions of what is currently, or soon to be, unsuitable deer habitat due to canopy closure in the extensive created openings and second-growth stands.

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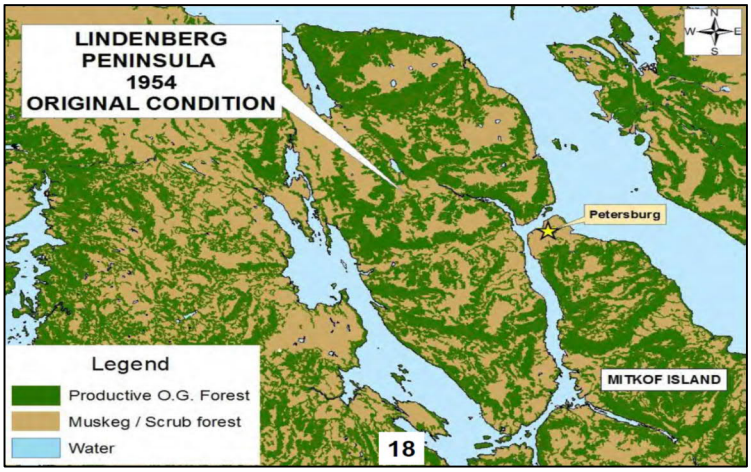
[198] 16 U.S.C. § 3112(1).

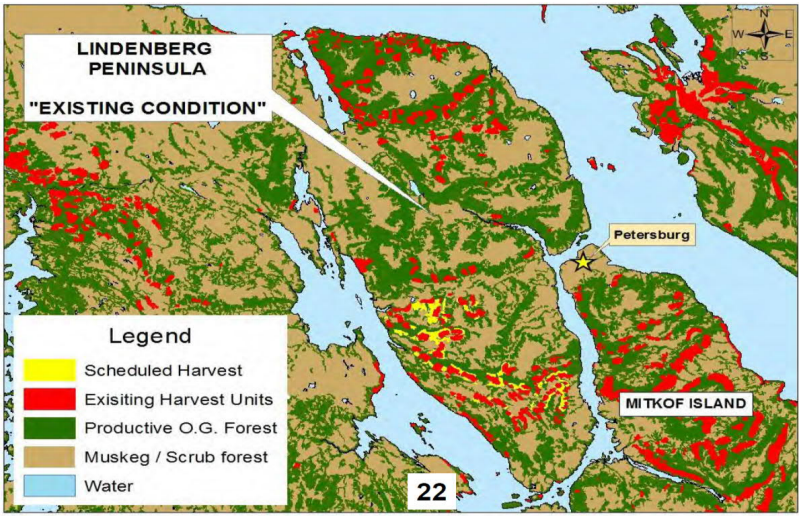
[199] Senate Committee on Energy and Natural Resources, Alaska National Interest Lands Conservation Act, S.Rep. No. 413, 96th Cong., 1st Sess. 233 (1979), reprinted in 1979 U.S.C.C.A.N. 5070, 5177.

[200] DEIS at 3-79, 3-95.

The Petersburg and Wrangell Ranger Districts disproportionately removed deer winter range for decades. According to a conservation assessment included in the TLMP planning record, most of the logging in these ranger districts occurred on low-elevation, south facing slopes favored by deer - for example, the southern portion of Mitkof Island.[201] Timber companies have already removed half of all the large-tree old growth forest from Kupreanof and Mitkof islands.[202] Nearly a quarter of the prime winter deer habitat in those two islands is gone.[203] More than half of the winter deer habitat is in areas managed for timber.[204] These losses warranted a fuller analysis and disclosure of the habitat features for deer within inventoried roadless areas on these islands. As shown by graphics prepared by the Alaska Department of Fish and Game, the disproportionate effect of past high-grading deer winter habitat and existing habitat loss is staggering in portions of these islands.



Had the Forest Service conducted an adequate location-specific analysis, the agency could have and should have produced a map showing where inventoried roadless areas provide remaining deer habitat on the landscape in its current condition:



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201 https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/PDFs/4.17_Kupreanof-Mitkof.pdf.

202 *Id.*

203 *Id.*

204 *Id.*

The Forest Service has also removed similarly disproportionate levels of large tree forest/winter deer habitat from Wrangell, Etolin and Zarembo islands.[205] The recent Wrangell Island NEPA analysis indicated a loss of more than a third of deer winter habitat below 800 feet in elevation. Previous Forest Service analyses indicated lower deer numbers are lower on Wrangell Island than on surrounding islands based on browse indications, pellet density data and hunter harvest information. These low population numbers may reflect the significant loss of winter deer habitat in many Wrangell Island landscape units. Pending state timber projects have had or will have a significant impact on whatever high value winter deer range remains on the island. Indeed, an older Forest Service analysis, the Shady project EA, noted that "any additional loss of important deer habitat could reduce the ability of an already depressed population to recover."

Despite this historically high habitat loss, declining population trends and predation risks from wolves and black bears, the DEIS improperly minimizes adverse impacts to deer. For example, the Central Tongass Project DEIS acknowledges that the deer model results showing deer density already below the target of 18 deer/square mile in many project area Wildlife Analysis Areas with further reductions expected due to additional timber take.[206] Then:

> Timber harvest would decrease the estimated carrying capacity for deer over the long-term due to reductions in the amount of winter habitat capability. Within WAAs where timber harvest is planned under Alternatives 2 or 3, current deer habitat capability calculated using the deer model on all WAAs except WAAs 5012 and 5018 are below the 2016 Forest Plan guideline of 18 deer per square mile, and suggests the project would result in higher risk that there could be insufficient numbers of deer for sustainable wolf populations and human harvest.[207]

In other words, out of 13 Wildlife Analysis Areas recently analyzed, only two would *theoretically* support enough of deer to maintain wolf populations and human harvest. And because the Forest Service failed to look at local population trends, the DEIS ignores actual deer availability within the two WAAs that would meet the guideline - deer are extinct or nearly extinct on Kuiu Island. ADF&G pellet surveys from north Kuiu Island have historically been the lowest of any surveyed WAA in the project area.[208] The status of deer populations on individual islands warrants detailed analysis in order to assess actual availability of the resource and to assess the true significance of inventoried roadless areas on specific islands. For example, northern Kuiu Island became a predator pit, combining high levels of predation with a population decimated by severe winters, accompanied by a period of intensive logging.

The following map, submitted during the administrative appeal process for the 2008 Kuiu Timber Sale, illustrates the level of existing deer winter habitat loss in that project area (*see maps, next page*):

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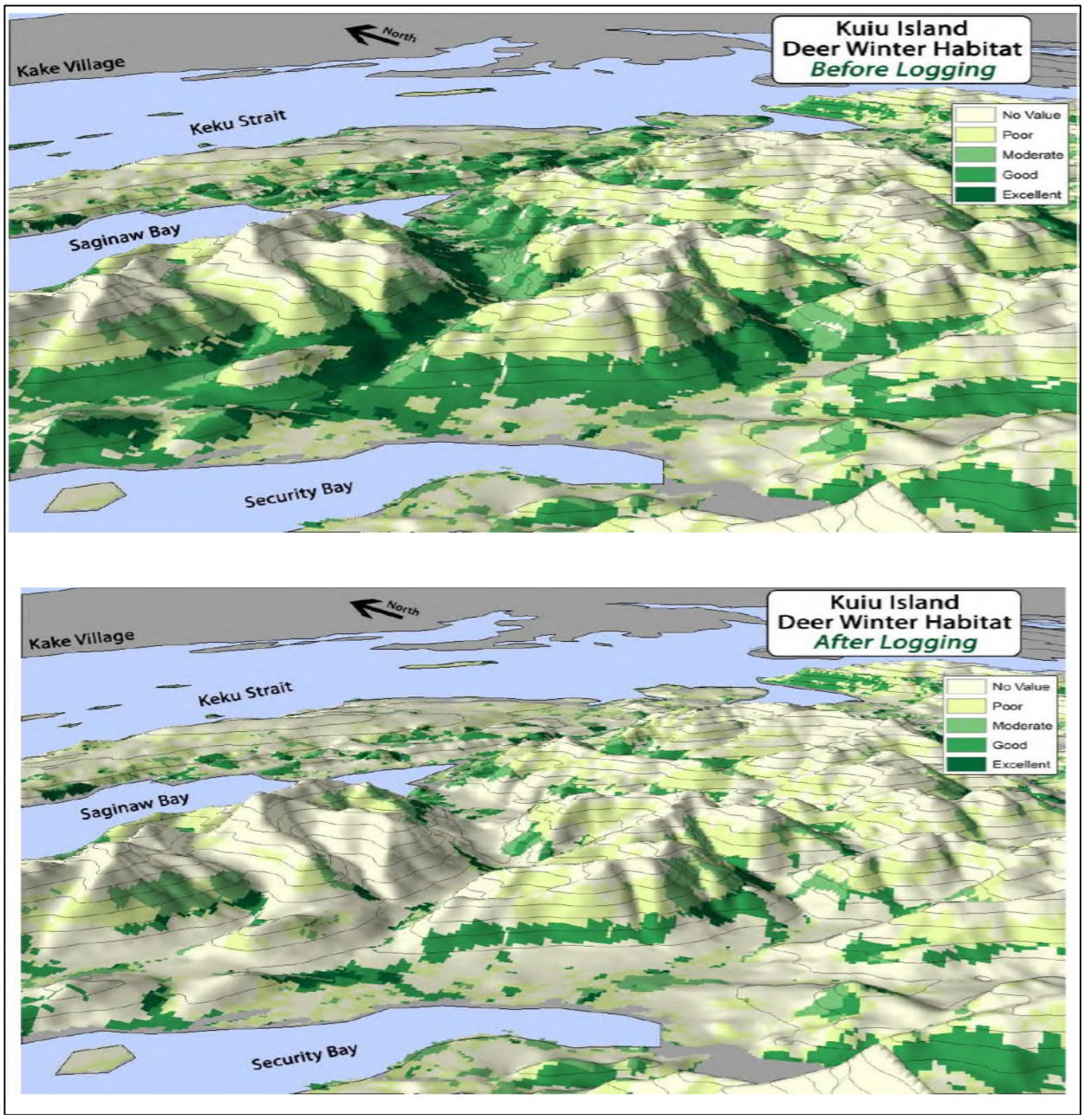
[205] https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/PDFs/4.18_Wrangell_Zarembo_Etolin.pdf.

[206] Central Tongass Project DEIS at 3-149.

[207] *Id.* at 3-141.

[208] Central Tongass Project PR 832_0602 at 9.



Now there are no deer - unquestionably, a major impact.

Another interesting feature shown in the graphic is that there is north-facing deer winter habitat - a habitat quality the agency should have considered had the DEIS provided adequate site-specific analysis. For example, the Zarembo TAA is the entire northeast portion of the island, meaning that deer moving the hillside to the beach fringe necessarily use north facing habitat. But the DEIS restricts its definition of "high and moderately high value winter deer habitat" to only south-facing slopes and fails to distinguish between different forest stand qualities as deer habitat. As explained in wildlife expert Matt Kirchhoff's comments on the recent Prince of Wales Island timber project, the failure to identify habitat qualities for deer and separately consider actual deep snow habitat is a major flaw.

I am pleased to see the Forest Service recognizing the importance of large-tree old growth as important wildlife habitat. I am surprised, however, that the FS is using HPOG instead of SD67 as the chosen descriptor for deep-snow habitat for deer. The Forest Service has consistently objected to the use of volume class as a wildlife habitat descriptor.[1] A stand of older, even-aged trees may have high volume, but the closed canopy makes it poor habitat for deer. By comparison, a gap-phase old-growth stand that features tall, or large diameter trees, is good at intercepting snow and providing forage.[2] In the FEIS, adding "SD67 stands below 800 feet elevation" as deep-snow habitat for deer would make a more meaningful, accurate analysis.

4. Deep-snow winter habitat (for deer) is poorly and inconsistently defined.

The DEIs does a good job of describing how deer move up and down the hillside, and into and out of different types of stands, in response to changing snow conditions. In times and in places where deer encounter deep snow, they depend on old-growth stands with large trees that effectively intercept that snow (either HPOG, or SD67). For reasons that are unclear, the DEIS departs from the definition used in the Forest Plan and redefines deep-snow habitat as HPOG *on south-facing slopes only* (but see footnote 3).[3] This is problematic because (a) many deer do not have access to south-facing habitat (if they inhabits a north-facing watershed), and (b) deer that inhabit north-facing habitat are most affected by snow, and are most dependent on deep-snow habitat.

The DEIS (page 176) suggests that reducing the deep snow habitat to south-facing slopes only is a way of presenting a "worst case" analysis. I don't understand that logic. The DEIS is reducing the extent of deep-snow habitat, shifting it to an aspect where snow is less deep, and where stand structure is relatively more even-aged.[4] All else being equal, stands that develop under a gap-phase disturbance regime (often N-facing) are more valuable to deer than even-aged stands. Those gap-phase old-growth stands are also favored by loggers, who have targeted them disproportionately.[5] Narrowing the definition of deep-snow habitat will have significant repercussions for deer and subsistence hunters—effects not captured in the DEIS "worst case" analysis. The FEIS should adopt the definition of deep snow habitat that includes *all* aspects, as in the Forest Plan.

Even in the absence of adequate habitat measurements and the omission of significant chunks of high value deer habitat, the information the Central Tongass Project DEIS clearly shows that maintaining intact inventoried roadless such as those on north Kupreanof Island are essential to providing some remaining refugia for deer:

> High and moderately high value deer winter habitat would be most reduced by Alternative 2 in WAA 5136 (Portage Bay). Under Alternative 2 there would be a 35 percent reduction from the existing condition in this WAA, resulting 49 percent of this habitat remaining compared to the historic (1954) condition in this WAA. Based on professional opinion, a removal 35 percent of the existing amount of high and moderately high deer winter habitat in any particular WAA would be a substantial change in a WAA's ability to sustain a healthy deer population through a severe winter. The high and moderately high value deer winter habitat remaining from the historic condition would also reach 49 percent in WAA 5132 (West Kupreanof) under Alternative 2.
>
> In WAAs which have experienced long-lasting declines in the deer population in the past, such as WAA 2007 (Mitkof) and WAA 5138 (Tonka) high and moderately high

> value deer winter habitat would also be further reduced. In WAA 2007, the percentage remaining (from historic) would go from 70 percent currently remaining to 62 percent under Alternative 2. In WAA 5138, the percentage remaining would go from 71 percent currently remaining to 63 percent under Alternative 2. As noted there are no thresholds for what percentage of important deer winter habitat is required to prevent declines during severe winters, though it is known that the risk of severe winters would be increased....[209]

Game Management Unit 1B (mainland) populations exist in isolated pockets and have patchy distribution" with "relatively low deer density overall (due to typically high snow accumulation).[210] Game Management Unit 3 island populations have fluctuated considerably, with population declines caused by severe winter weather made worse by reduced habitat capability caused by logging and predation by wolves and bears.[211] A recent period of severe winters (2006/2007) caused deer to concentrate on winter range, followed by high mortality due to malnutrition and predation.[212] ADF&G has cautioned that population recovery has been slower than anticipated - likely because of predation from bears and wolves.[213] Even worse, there are "unfavorable long-term changes in habitat conditions resulting from decades of clearcut logging."[214] The DEIS acknowledges that: "... managers are still concerned that existing wolf and bear predation, as well as major habitat alterations in some WAAs are limiting the population from recovery. It is highly believed that a substantial die-off could result again in these GMUs with another severe winter.[215]

In sum, the Rulemaking DEIS needed to fully account for the effects of a series of above average and record snowfall winters that caused serious impacts to central southeast Alaska deer populations. Specifically, from 2006-2009, the central Alaska panhandle, including Game Management Unit 3, experienced 3 consecutive winters with well above average snowfall. In fact, snow depths in combination with habitat loss at least partly influenced the Alaska Board of Game's January 2013 decision to limit the deer hunting seasons and bag limits in some areas.[216] As ADFG personnel explained, "maintaining adequate reserves of old growth will be important for maintaining deer numbers at higher levels once recovery of the deer population has occurred."[217] The Forest Service must take reasonable steps to ensure not just viable, but harvestable levels of wildlife populations, in particular - for deer. The DEIS acknowledges periodic severe winter snowfalls anticipated, and that the greatest climate change concern for wildlife was weather extremes, but never takes the step of identifying where these impacts are likely to be most severe and where preserving Roadless Rule prohibitions on timber extraction and road construction would best buffer future risks.

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[209] Central Tongass Project DEIS at 3-76.

[210] Exh. 29 (Lowell 2015).

[211] Exh. 30 (Lowell 2015).

[212] DEIS at 3-81.

[213] Exh. 30 (Lowell 2015).

[214] *Id.*

[215] Central Tongass Project DEIS at 3-247.

[216] KFSK. Board of Game shortens deer season near Petersburg. Joe Viechnicki. Jan. 15, 2013. https://www.kfsk.org/2013/01/15/board-of-game-shortens-deer-season-near-petersburg/

[217] ADF&G. Division of Wildlife Conservation. Feasibility Assessment for Increasing Sustainable Harvest of Sitka Black-Tailed Deer in A Portion of Game Management Unit 3. October 2012.

C. *Impacts to Alexander Archipelago Wolves: consider abundance and significance of all Tongass populations*

Defenders' scoping comments requested that the Forest Service consider and disclose a reasonable, place-specific population estimates for southeast Alaska wolves. Many areas of Southeast Alaska where wolves historically were abundant have conditions similar to the Prince of Wales Archipelago, where suppression of the population to a very low level has been a critical concern in recent years. Extensive logging and road construction have similarly changed conditions for deer and wolves on Kuiu, Kupreanof, Mitkof, Zarembo, Revillagigedo, and Wrangell Islands. In conjunction with the Prince of Wales Archipelago, those islands sustain most of the wolf population in Southeast Alaska.[218] Decline in sustainable predator-prey communities will occur throughout the most productive areas for deer and wolves in Southeast Alaska because those areas are correlated with the most productive forest stands selected for timber harvest.[219]

The DEIS improperly minimizes adverse impacts to wolves by using an overly broad scale of analysis and ignoring location specific impacts. It states that 38% of the range-wide population inhabits southeast Alaska and population trends are largely unknown.[220] It notes there is some population data available for Prince of Wales and surrounding islands that suggests an apparent decline of potentially 75 percent.[221] This decline does not cause concern for the Forest Service, however, because there are lots of wolves in British Columbia, meaning that Prince of Wales Island is a mere 4 percent of the species range and hosts only 6 percent of the range-wide population.[222] The Prince of Wales Island population may declined another 8 to 14 percent over the next three decades so that there would be gaps in species distribution on the island.[223] The DEIS ignores Game Management Unit 3 (GMU3) wolf populations entirely. This rulemaking is about southeast Alaska, and it is arbitrary to minimize impacts to wolves by relying on populations in another country to minimize impacts.

The combination of lower deer populations and heavily roaded areas in close proximity to population centers can creates scenarios incentivizing and facilitating unsustainable harvests of wolves through pack depletion. The DEIS is deficient in considering impacts to wolves which only briefly mention the increased risks the rulemaking would cause to the population due to reduced deer habitat capability and road density. The discussion fails, for example, to analyze these risks in detail or to include any site-specific analysis of project area wolf population status or critical issues such as the extent to which the project could increase human-caused mortality. The DEIS anticipates localized increases in hunter access would be expected, but then relies on future road closures without ever considering the effectiveness of those mitigating measures, such as agency's record of actually doing decommissioning or storage or approach to enforcement.[224]

Again the absence of location-specific analysis is a significant flaw – after minimizing the importance of the Prince of Wales Island population, the DEIS then ignores the relevance of impacts to wolves on other islands entirely.

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[218] Person et al. 1996.

[219] David Person Declaration on Big Thorne, 2015, at ¶13e].

[220] DEIS at 3-82.

[221] *Id.*

[222] *Id.*

[223] *Id.* at 3-105.

[224] *Id.* at 3-99-100.

Photo source: Person & Larson 2013.[225]

The Forest Plan recommends maintaining habitat sufficient to support 18 deer per square mile, and indicates that keeping total road densities between 0.7 to 1.0 miles per square mile may be necessary.[226] Most of the Wrangell and Petersburg Ranger District WAAs already fail to meet these criteria, and only two of them would have long-term deer densities exceeding the Forest Plan standard – both on deer-depleted Kuiu Island.[227] Road densities in all but two of the analyzed WAAs would exceed the standard, with heavily hunted areas such as Mitkof, Wrangell and Zarembo Islands realizing road densities of 1.38, 1.26 and 1.98 miles per square mile, respectively.[228]

The DEIS should have considered and disclosed a reasonable population estimates for central southeast Alaska wolves and break them down into the southern and northern GMU 3 islands complexes and then assess risks of pack depletion. ADF&G considers the wolves on the southern GMU 3 island complex (Etolin, Wrangell and Zarembo Islands) and the northern GMU 3 island complex (Kuiu, Kupreanof, Woewodski and Mitkof Islands) to be separate populations for management purposes.[229] The agency does have GMU 3 wolf population estimates that rely on Dr. Person's Prince of Wales Island research and reflect average territory and pack size from similar habitat.[230] Historical population estimates for the GMU 3 wolf population are between 125 and 235 wolves in 21 packs, based on the amount of suitable habitat below 1,800 feet in elevation.[231] These estimates may high based on the actual availability of deer on these islands. In 2012 an ADF&G Division of Wildlife Conservation white paper indicated that using the results from Dr. Person's Prince of Wales Island research were likely to over-estimate wolf populations in other areas:

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[225] Source: Person & Larson 2013. Developing a method to estimate abundance of wolves.

[226] Forest Plan at 4-91.

[227] Central Tongass Project DEIS at 3-143.

[228] *Id.* at 3-141.

[229] ADF&G 2012, IM Feasibility Assessment, Unit 3. All documents cited in this discussion about impact to wolves were submitted to repeatedly to multiple Tongass National Forest ranger districts and should be available for agency review in district files.

[230] *Id.* at 5; Lowell, R.E. 2006. Unit 3 wolf management report. Pages 38-44 in P. Harper, editor. Wolf management report of survey and inventory activities 1 July 2002-30 June 2005. Alaska Department of Fish and Game. Dec. 2006; Lowell, R.E. 2009. Unit 3 wolf management report. Pages 41–48 in P. Harper, editor. Wolf management report of survey and inventory activities 1 July 2005-30 June 2008. Alaska Department of Fish and Game. Juneau, Alaska. 2009.

[231] *Id.*

> However, Person et al. (1996) derived the region-wide estimate based on a calibration of wolf density in GMU 2, which represents some of the more productive habitat in Southeast Alaska with respect to deer, a primary prey of wolves. Also, the wolf estimate was based on habitat capability for deer, not actual deer population numbers. Consequently, the region-wide estimate of the 1990s may have been biased high.[232]

Because "[w]olf populations are closely tied to populations of deer," Dr. Person has stated that "[i]f deer populations decline substantially, wolf populations are very likely to decline eventually because of a reduced prey base."[233] For this reason, it is important to recognize that actual deer population numbers are extremely low in portions of GMU 3. Thus, it is unclear how many wolves inhabit the project area, but the numbers may be small enough such that this project could result in local extirpations.

The DEIS oversimplifies a very simple issue by merely quantifying deer densities and road densities. The DEIS needed to identify areas with existing levels of wolf take or disclose quantifiable criteria for unsustainable take levels that may result major impacts to the species such as pack depletion. Many areas in GMU 3 share significant similarities with areas on Prince of Wales Island identified as having high risk of chronic unsustainable harvests – areas with population centers and road connections that facilitate higher take levels.[234] The Central Tongass Project will likely incentivize higher wolf take levels by increasing competition between humans for smaller numbers of deer.[235]

In sum, as with the analysis of deer, the DEIS fails to provide sufficient site-specific discussion of baseline information about project area wolves and impact to them to meet the Forest Service's analytical responsibilities under NEPA and satisfy the wildlife viability provisions under NFMA and the Forest Plan.

D. Comments on analysis of impacts to Queen Charlotte Goshawks

There are significant uncertainties about the current status of goshawk populations and the adequacy of nest protection measures. The Fish and Wildlife Service's 2007 Status Review explained that Queen Charlotte goshawks in southeast Alaska are highly vulnerable to additional stresses - because of the low population level, "low survival or reproductive rates could not be sustained long before viability of the subspecies would be at risk." Population levels are unknown; according to the Status Review, southeast Alaska may support just a few to several hundred breeding pairs. These findings and other results from risk assessments and scientific studies demonstrate the risks of continued and serious population decline associated with further loss of habitat caused by old-growth logging. Queen Charlotte Goshawks will likely face at the very least additional localized extirpations on Prince of Wales Island. Many of the few remaining active nest sites and foraging areas are in southeast Alaskan old growth forest stands and will be at direct or indirect risk due to any logging in Roadless acres.[236]

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[232] ADF&G, Division of Wildlife Conservation. 2012. Status of Wolves in Southeast Alaska. October 2012.

[233] Declaration of Dr. Dave Person ¶23.

[234] Person & Logan 2012.

[235] Person, D. & T. Brinkman. 2013. Succession Debt and Roads.

[236] Sources for our discussion of impacts to the Queen Charlotte Goshawk include the 2007 U.S. Fish and Wildlife Status Review, 1996 Forest Service Conservation Assessment, Appendix N to the 1997 Tongass Land Management Plan, and numerous other studies - Smith, W.P. 2013. Spatially explicit analysis of contributions of a regional conservation strategy toward sustaining northern goshawk habitat; Mclaren, E.L. et al. 2005. Northern Goshawk (Accipiter gentilis laingi) post-fledgling areas on

The Forest Service's 1996 conservation assessment found that a "broad scale of analysis fails to consider distribution of habitat throughout southeast Alaska." Subsequent studies also have verified that it is unreasonable to rely on habitat measurements outside of known nests. Based on these findings, we question the approach of measuring impacts in terms of total and high-volume productive old-growth across the Forest.[237] This approach masks degradation to specific goshawk foraging habitat caused by logging in the vicinity of the nests. A site-specific analysis is possible and will generate a more accurate evaluation of impacts and viability risks.

The DEIS acknowledges questions about Forest Plan protections for Queen Charlotte goshawks but then relies on them to inform a conclusion that Roadless Rule exemption alternatives would only have localized effects by limiting the availability of nest sites.[238]

There are a number of historical known goshawk nests in roadless areas in southeast Alaska. The Forest Service needed to review readily available survey data and historical observations to inform the analysis of the value of roadless areas for this species. There are very few Queen Charlotte Goshawks. Individual impacts, such as impact to individual QCGs, can have more significant impacts in relation to other impacts on overall species viability - across the Alexander Archipelago:

> Cumulative impacts of multiple projects can be significant in different ways. The most obvious way is that the greater total magnitude of the environmental effects - such as the number of acres affected or the total amount of sediment to be added to streams within a watershed- may demonstrate by itself that the environmental impact may be significant. Sometimes the total impact from a set of actions may be greater than the sum of the parts. For example, the addition of a small amount of sediment to a creek may have only a limited impact on salmon survival, or perhaps no impact at all. But the addition of a small amount here, a small amount here, and still more at another point could add up to something with a much greater impact, until there comes a point where even a marginal increase will mean that no salmon will survive.[239]

The Ninth Circuit's explanation of sediment impacts to salmon has a direct bearing on how the DEIS should analyze risks to individual Queen Charlotte Goshawks in the project area. The cumulative effects analysis must explain how the proposed Rulemaking exemption, in combination with other past, planned and other ongoing projects threatens QCG viability in light of the low population of the species, and the importance of individual breeding pairs in the project area to the broader persistence of the species.

The DEIS needed to review the Forest Service's 1996 Conservation Assessment which included a risk assessment that identified areas with harvest rates exceeding percent by 1995 or 33% by 2055 as presenting "a higher risk of not providing the amount and distribution of habitat necessary to sustain goshawks." Where do Roadless area VCUs fit within these risk thresholds? NEPA analysis must address and answer these questions. It

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Vancouver Island, British Columbia. J. Raptor Res. 39(3): 253-263; Flatten, C., K. Titus, and R. Lowell, 2001. Northern goshawk population monitoring, population ecology and diet on the Tongass National Forest. Alaska Dept. of Fish and Game, Juneau, Alaska; Doyle 2005.

[237] *See Native Ecosystems Council v. U.S. Forest Serv* . 428 F.3d 1233, 1250 (9th Cir. 2005)(the Forest Service may "meet the species viability requirements by preserving habitat, but only where both the Forest Service's knowledge of what quality and quantity of habitat is necessary to support the species and the Forest Service's method for measuring the existing amount of that habitat are reasonably reliable and accurate"). The choice of analysis scale must represent a reasoned decision and cannot be arbitrary. *Pac. Coast Fed. Fishermen's Ass'ns v. NMFS*, 265 F.3d 1028, 1037-38 (9th Cir. 2001).

[238] DEIS at 3-92-93.

[239] *Klamath-Siskiyou Wildlands Center v. BLM*, 387 F.3d 989, 994 (9th Cir. 2004).

also needed to review the locations of any known current or historical nests and any other observations of goshawk habitat use, including information about foraging habitat.

Again, the absence of site-specific analysis (literally, nest-site-specific analysis) is a serious flaw with the DEIS. There only 44 probable nesting territories in the Wrangell and Petersburg Ranger Districts, and yet the Forest Service refuses to analyze whether the nest sites are within or adjacent to inventoried roadless areas. It is a simple task: will exemption alternatives cause clearcutting within a goshawk home range in the vicinity of known historical nest sites?

There are significant uncertainties about the current status of goshawk populations and the adequacy of nest protection measures. The Fish and Wildlife Service's 2007 Status Review explained that Queen Charlotte goshawks in southeast Alaska are highly vulnerable to additional stresses - because of the low population level, "low survival or reproductive rates could not be sustained long before viability of the subspecies would be at risk." Yet this DEIS - without any site-specific analysis whatsoever, concludes that the project is a "no worries" thing for the species as a whole with just a few adverse impacts to individuals and habitat.

Population levels are unknown; according to the Status Review, southeast Alaska may support just a few to several hundred breeding pairs. These findings and other results from risk assessments and scientific studies demonstrate the risks of continued and serious population decline associated with further loss of habitat caused by old-growth logging. Queen Charlotte Goshawks will likely face at the very least additional localized extirpations on Prince of Wales Island pending implementation of the Prince of Wales project.

The DEIS must review the Forest Service's 1996 Conservation Assessment which included a risk assessment that identified areas with harvest rates exceeding 13 percent by 1995 or 33% by 2055 as presenting "a higher risk of not providing the amount and distribution of habitat necessary to sustain goshawks." Where do inventoried roadless areas provide habitat within VCUs meeting these risk thresholds? The DEIS fails to address and answer these questions.

Survey efforts during the 1990s identified only 62 known nest areas, concentrated in significant part (27/62, or 44%) in the central portion of the Alexander Archipelago (Stikine District) - in other words, nearly half of the historical Queen Charlotte Goshawk nest sites are within the jurisdiction of the Petersburg and Wrangell Ranger Districts. By 2005, experts had identified only 72 unique nest areas, with most of them reportedly inactive, and new nests were not being found. The DEIS provides no information about the locations of any known current or historical nests or any other observations of goshawk habitat use, including information about foraging habitat.

There have been six historic known QCG nests on Mitkof Island. All but one of the Mitkof Island watersheds (VCUs) exceed the 1996 Conservation Assessment risk threshold, particularly VCUs 4500, 4520 and 4530, which contain or are immediately adjacent to the few remaining goshawk nests on the island. The Forest Service's most recent (2014) survey identified nests or activity in only three areas. This means that the only information available shows that there is a substantial risk that the logging in managed lands is having the effect predicted by scientific experts as other historic nests may have been abandoned. There are substantial questions about impacts to the few remaining breeding pairs, particularly in terms of their home ranges. The Forest Service's most recent effort to degrade Mitkof Island with additional old-growth logging would have all prescribed additional clearcuts in the immediate vicinity of Queen Charlotte Goshawk nest sites. There has been a historical scientific concern regarding significant risks associated with further logging in this and other watersheds on the island:

> The [Overlook] project is well within the home range of the Queen Charlotte goshawk nest site known as the "Dry Straights" nesting area. The lack of a nest within the boundaries of this project area does not preclude this project from impacts to the existing adult pair by the potential alteration of important alternate nesting sites and existing highly suitable foraging habitat in the project area. Nesting home ranges for adult goshawks on this Forest range from 9,600 to 10,500 acres, winter home ranges averaging over 29,000 acres making the home range of this goshawk pair well within the boundaries of the project area.
>
> The Dry Straights nesting area is one of two know active goshawk nesting areas located on Mitkof Island this year. Impacts to important habitat should be considered in depth because many of the units are located in highly suitable goshawk habitat, located in low elevation high volume POG.
>
> VCU 450 is one of five VCUs where risk analysis conducted as part of the Forest Plan FEIS suggests the reduction of POG may present an elevated risk of not maintain habitat in this VCU to sustain goshawks. (Appendix to "Appendix N" of the FEIS TLMP REVISION, 1997). This predicted elevated risk conducted as part of the analysis of the Forest Plan and specific to this VCU should be disclosed ….

Similarly, previous Forest Service analyses such as the 1998 Wrangell Island Report indicated that there were Queen Charlotte Goshawk observations on Wrangell Island. Our review of Wrangell Ranger District EAs and other analyses raise serious concerns about breeding and nesting failures on the island. The DEIS ignored our request for a discussion of possible reasons for these failures. It does not specify how many surveys have been conducted or describe the survey methodologies. For example, there was an active nest found in the Shady project area, with a failed nesting attempt in 2001, and no successful nesting activity since that time despite goshawk observations in the project area (surveys done 2000 - 2003).

The Navy Timber Sale Project FEIS identified 7 known goshawk nests in WAA 1901 on Etolin Island. Expert comments in the record have indicated significant risks associated with further logging in the vicinity of the nests. The 2008 TLMP planning record shows that by 2005 the total harvest of productive old-growth in VCUs 4640 (the Anita Bay pinch-point) and 4670 - exceeded Forest Service risk thresholds. Only two other biogeographic provinces considered in the risk assessment had higher short-term levels of old-growth removals and higher long-term old-growth removals than the central Tongass biogeographic provinces.

In sum, the DEIS cannot provide an adequate NEPA analysis of impacts to Queen Charlotte goshawks in the absence of location specific information showing where inventoried roadless areas provide habitat features in areas of known Queen Charlotte goshawk nest sites and foraging habitat.

V. In Conclusion

Roadless Rule exemption alternatives would do irreparable harm to Tongass wildlands including their fish and wildlife populations, Alaskans who depend on intact Tongass ecosystems for their livelihoods, the tourism and recreation sectors, and all American taxpayers. Nearly two decades ago, the Forest Service determined that "the long-term ecological benefits to the nation of conserving [Tongass National Forest] inventoried roadless areas outweigh the potential economic loss to [southeast Alaska] communities."[240]

Now the agency would reverse course on the importance of long-term ecological benefits at a time of significant local deer deficits and plummeting pink populations, among other

[240] 66 Fed. Reg. at 3255.

resource concerns. Changing environmental conditions heighten the significance of the region's inventoried roadless areas.

Another major change occurring over the past two decades is that the region has fully transitioned to an economy dependent on fish, wildlife, scenery and recreation rather than timber. The no-action alternative is the only alternative that will prevent economic loss to the region and respond to the overwhelming opposition to exemption alternatives from hundreds of local economic experts – regional business owners. We urge you to drop this reckless rulemaking and this insufficient NEPA process, and instead direct the Alaska Region and Tongass National Forest to cease planning on all pending timber sales pending a full audit of agency costs and timber maladministration and to request that Congress redirect all timber program funding to fixing fish passage problems.

Sincerely,

Larry Edwards, president
Alaska Rainforest Defenders
907-752-7557

Mailed separately: The cited exhibits, on a thumb drive.