

## **ALASKA RAINFOREST DEFENDERS**

Larry Edwards, President  
Alaska Rainforest Defenders  
P.O. Box 6064  
Sitka, AK 99835

September 16, 2019

Carey Case  
Project Leader  
Central Tongass Project  
Petersburg Ranger District  
P.O. Box 1328  
Petersburg, Alaska 99833  
[comments-alaska-tongass-petersburg@fs.fed.us](mailto:comments-alaska-tongass-petersburg@fs.fed.us)

Ms. Case:

I submit these comments on behalf of Alaska Rainforest Defenders (“Defenders”). The Forest Service’s proposed action for the Central Tongass Project would remove nearly a quarter of a billion board feet of federal timber over the next fifteen years.<sup>1</sup> We support the no-action alternative. The Forest Service has funded and planned clearcut logging on public lands in central southeast Alaska for decades. The remaining public forests are essential to a 21<sup>st</sup> century southeast Alaska market-based economy that relies on fish, wildlife, scenery and outdoor recreation. The Forest Service’s proposed action is an archaic economic model that harms southeast Alaska communities by liquidating remaining old-growth habitat and preventing the recovery of second growth forests.

Defenders’ members use the Tongass National Forest, including the project area, for recreation, commercial fisheries, subsistence, wildlife viewing, scientific research and other activities. In particular, our board members have engaged in considerable advocacy on behalf of iconic southeast Alaska wildlife species, such as the Alexander Archipelago Wolf, Queen Charlotte Goshawk and Sitka black-tailed deer and have a long history of participation in and dependence on southeast Alaska’s commercial salmon fisheries.

---

<sup>1</sup> DEIS at 2-23.

## **I. Introduction**

The Forest Service's proposed action would remove 150 million board feet (MMBF) of old growth timber and 80 MMBF of immature recovering forests ("young growth") over the next fifteen years.<sup>2</sup> The agency would then construct/reconstruct 175 miles of temporary and permanent system road, adding to the economic and ecological cost of the project.<sup>3</sup>

These levels of timber extraction are unreasonable, particularly in light of the damaged ecological condition of Alexander Archipelago islands in central southeast Alaska. Further, the proposed volume – purportedly intended for local employment and local sawmills – is at best bizarre and at worst a blatant lie since there is no timber industry in southeast Alaska operating at even a small fraction of the proposed scale of the timber sale. This project continues the trend of mismanaging public old-growth forests around Petersburg and Wrangell 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 has long been a concern for deer on many central southeast Alaska islands, particularly in the Petersburg Ranger District portion of the project area. The Forest Service authorized Viking Lumber to destroy much of the best remaining publicly owned winter deer habitat on Lindenberg Peninsula through the recent Tonka project. Additional clearcuts on Kuiu, Kupreanof or Mitkof Islands could cause local wildlife extirpations and force survivors into isolated patches of lower quality habitat.

There have been recent (2016 - 2018) severe declines in pink salmon harvests in Alaska Department of Fish and Game (ADF & G) regulatory districts in central southeast Alaska. In 2016 the pink salmon fishery was a disaster and in 2018 returns were far worse.<sup>4</sup> ADF&G anticipated another weak harvest in 2019 of 18 million fish which slightly exceeded expectations with a total harvest of 19.2 million fish.<sup>5</sup> However, northern southeast Alaska inside waters – the Central Tongass Project Area – yielded even poorer returns than expected and ADF&G closed these areas to seiners for most of the season.<sup>6</sup>

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 the interests of distant raw log

---

<sup>2</sup> *Id.*.

<sup>3</sup> *Id.*

<sup>4</sup> See <https://www.kfsk.org/2018/08/29/southeast-pink-salmon-catch-lowest-in-over-four-decades/>

<sup>5</sup> <https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyfisherysalmon.bluesheetssummary>

<sup>6</sup> <https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyfisherysalmon.bluesheetssummary>

exporters<sup>7</sup> whose economic “contributions” to the region are negative given the massive public cost of the federal timber program.<sup>8</sup> The Forest Service and other timber agencies have logged watersheds in the Wrangell and Petersburg Ranger Districts so intensively that less half of the project area watersheds provide intact salmon spawning and rearing habitat.<sup>9</sup>

A Taxpayers for Common Sense analysis using Forest Service budget data calculated that the Petersburg and Wrangell Ranger Districts would have been responsible for a \$89.2 million taxpayer loss had they fully implemented the recent Wrangell Island, Navy (Etolin Island) and Mitkof Island timber sales, which would have removed roughly 113 MMBF of federal timber.<sup>10</sup> Taxpayers for Common Sense also 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.<sup>11</sup> The Central Tongass Project will be the second largest timber sale program implemented pursuant to the Tongass Advisory Committee’s plan. The District Rangers for the Petersburg and Wrangell ranger districts as Responsible Officials will thus be Responsible for throwing away a significant portion of this staggering loss – as much as \$172.5 million to support timber sales of 230 million board feet in two communities that lack any sizable timber industry. Forest Service reports indicate that the two island communities together processed 40 thousand board feet of federal timber in 2016.<sup>12</sup>

Defenders acknowledges that the DEIS suggests a broad program that would include non-timber resource uses. But those materials also show that the Forest Service has allocated funding only for the timber component of the project or for project components that benefit plantation forestry such as thinning.<sup>13</sup> All recreation components of the project require outside funding, private investment or volunteer

---

<sup>7</sup> Defenders acknowledge that one of the Forest Service’s two primary timber sale program beneficiaries operates a small mill. But that operator, Viking Lumber, sends of all the high value timber – cedar, to its de facto (literally and operationally) “parent” corporation in Washington State. As a matter of business, Viking Lumber is primarily a timber exporter and it is reasonable to assume its primary interest in Central Tongass Project timber will be to highgrade high value yellow cedar to send down south to Daddy.

<sup>8</sup> See <https://alaskarainforest.org/essays/> (Mehrkens 2013).

<sup>9</sup> Forest Service. 2016. Tongass Land and Resource Management Plan FEIS at 3-197. R10-MB-769e.

<sup>10</sup> <https://www.taxpayer.net/energy-natural-resources/upcoming-and-ongoing-taxpayer-losses-from-timber-sales-in-the-tongass-natio/>

<sup>11</sup> <https://www.taxpayer.net/energy-natural-resources/u-s-forest-services-tongass-timber-plan-proposes-increased-costs-for-taxpa/>

<sup>12</sup> [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd561662.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd561662.pdf) . This link is to the Forest Service’s 2016 sawmill capacity report; Defender recognizes that mill capacity in Petersburg and Wrangell is one-third larger than estimated in the report because it entirely omits a small mill in Wrangell that is likely similar in capacity to the two operating Petersburg mills.

<sup>13</sup> See also <https://www.kcaw.org/2018/02/27/forest-service-fighting-lower-48-wildfires-is-hurting-the-tongass/>.

work – combined with staffing resources that currently do not exist. And the Forest Service nationally faces a severe budget crisis, exacerbating what is already a dismal record of providing the special uses administration necessary to authorize even externally funded recreation projects. <sup>14</sup>

This project is thus in reality a traditional timber sale with the administrative planning and other resources and infrastructure subsidies allocated for the purpose of providing Viking Lumber and an international timber broker with a long-term supply of a quarter billion board feet of federal old-growth and second-growth timber. The rest is fake news. Even if the Forest Service would mitigate some of the harm caused by its past and present mismanagement of southeast Alaska’s public lands, the adverse impacts of further federal logging will more than offset any small improvements in fish or wildlife habitat. 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 central southeast Alaska island shorelines and interior areas undesirable or even inhospitable for visitors from the region and beyond who come for recreation – particularly sport fishing and hunting.

Defenders of course thus requests that you encourage your superiors to cease planning on this project. The Forest Service has the authority and relevant planning material under the Petersburg Ranger District’s Access and Travel Management Plan to address the most critical fish habitat improvement needs. Although investments in recreation could provide additional economic stimuli, the visitor products industry economy is thriving even in the absence of federal funding. Defender supports the no-action alternative, and we discuss our specific concerns in the following sections.

## ***II. Comments on the Purpose and Need and Range of Alternatives***

### ***A. The Actual Purpose and Need is Overly Narrow***

The DEIS claims that the purpose of the project is to meet multiple Forest Plan objectives.<sup>15</sup> This is a lie. Non-timber objectives are clearly subordinate to the true purpose of the Central Tongass Project – providing a quarter billion feet of old-growth timber and second growth timber to raw log export markets with perhaps some small token amount milled by Viking Lumber to maintain the illusion of local employment. The actual purpose and need for the project is unreasonable – allowing Viking Lumber and other raw log exporters to further liquidate publicly owned forests will harm the economic viability of communities that depend on fisheries and wildlife.

The NEPA analysis arbitrarily fails to consider whether the federal government can provide a better return from the massive public expenditures on Petersburg and Wrangell Ranger District management activities made by local and national taxpayers. The “vegetation management” component of the project purpose continues a costly course of producing taxpayer-funded, large-scale old-growth timber sales as long as deemed necessary to maintain Viking Lumber’s large export business and

---

<sup>14</sup> See <https://www.kcaw.org/2018/02/27/forest-service-fighting-lower-48-wildfires-is-hurting-the-tongass/>.

<sup>15</sup> DEIS at 1-5-1-6.

small mill production and then shifts that subsidy to the logging of recovering forests. The Forest Service needs to cease planning on this massive project and instead commit local ranger district resources to replacing all red pipes and addressing major sources of sedimentation in island ecosystem watersheds using existing authorities such as the applicable Access and Travel Management Plans.

The non-timber objectives of the Central Tongass Project appear to be empty promises. Can the Forest Service show that it has appropriated funds to achieve appropriate watershed and recreation objectives? Are the “restoration” needs dominated by thinning projects which primarily aim at timber industry objectives such as plantation forestry and accelerating growth for future logging? Does the Forest Service intend to remove mature second growth trees in riparian, beach fringe or other sensitive areas and then experiment with mechanized equipment placing them in otherwise functioning watersheds during spawning season or other sensitive stages of the anadromous fish life cycle and call it “restoration?” Does red pipe replacement, as suggested in the activity cards, depend on concurrent construction of timber roads and additional stream crossings?

Simply put, Defenders does not trust the Forest Service to develop a cost-effective approach to cleaning up the mess left by Viking Lumber and other timber operators so long as the agency intends to integrate timber harvest with restoration opportunities. Until the Forest Service develops realistic priorities that actually benefit salmon production such as red pipe replacement or even expensive treatments aimed at wildlife habitat needs such as small (less than an acre) canopy gap treatments, the “restoration” need is just greenwashing the agency’s forest landscaping experiments.

Defenders thus submits that the other components of the purpose and need are empty promises meant to obscure and greenwash the agency’s priority for timber development “over the competing environmental and recreational goals without justification sufficient to support the agency’s balancing of these goals.”<sup>16</sup> Defenders submits that the agency’s true purpose reflects an overly narrow focus on providing timber for the federal government’s favored corporate welfare recipients. Even if the Forest Service could somehow remediate the damage Viking Lumber Company and friends have done to central southeast Alaska in a cost effective manner, the decision to remove a quarter of a billion MMBF of old growth and recovering forest from the project area wholly undermines the value of such efforts.

The misleading purpose and need violate the Administrative Procedure Act (APA) and NEPA. NEPA requires federal agencies to disclose sufficient information as need to ensure “informed decisionmaking and informed public participation.”<sup>17</sup> NEPA requires that federal agencies (1) take a hard look at the environmental impacts of proposed projects and (2) ensure the availability of information to the public so as to enable public participation in the decisionmaking process.<sup>18</sup> In

---

<sup>16</sup> *Natural Resources Defense Council v. U.S. Forest Service*, 421 F.3d 797, 808 (9<sup>th</sup> Cir. 2005).

<sup>17</sup> 40 C.F.R. § 1502.1

<sup>18</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332. 349 (1989)

particular, NEPA analyses cannot serve this second essential function if they reflect misleading economic assumptions “by skewing the public’s evaluation of a project.”<sup>19</sup> NEPA thus requires that “[a]gencies shall insure the professional integrity ... of the discussions and analyses.”<sup>20</sup>

The DEIS for this project fails these standards by suggesting the possibility of recreation projects and fixed fish habitat without ever analyzing whether or not the Forest Service has the capacity and funding to achieve any non-timber objectives. Further, the DEIS needed to provide data to support the Forest Service’s assumption that clearcutting a quarter of a billion board feet will provide socio-economic benefits in central southeast Alaska communities. Nowhere does the DEIS identify the number of actual Alaskans employed by federal timber sale purchasers? How many successful seafood products providers will suffer economic loss from further ecological degradation of central southeast Alaska aquatic ecosystems? How many visitor products providers will lose their competitive advantage over other areas due to weakened scenery standards and prime recreational habitat wrecked by out of state loggers?

The Forest Service is proposing a landscape scale project over an extended time frame that emphasizes old and second growth forest removals for Viking Lumber or some other raw log exporter. As explained by the CEQ, “the purpose and need statement for a programmatic review will differ from the purpose and need for a project- or site-specific EA or EIS.”<sup>21</sup> “The purpose and need for a [Programmatic] EA or a [Programmatic] EIS should be written to avoid eliminating reasonable alternatives and focused enough for the agency to conduct a rational analysis of the impacts and allow for the public to provide meaningful comment on the programmatic proposal.”<sup>22</sup>

The emphasis on providing timber for Viking Lumber in the need statement is an overly narrow purpose and need that would preclude alternatives that would respond to other, more important programmatic considerations. An agency “cannot define its objectives in unreasonably narrow terms.”<sup>23</sup> Congress enacted NFMA 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.”<sup>24</sup> The goal was to ensure that timber production would not be

---

<sup>19</sup> *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d, 437, 446 (4<sup>th</sup> Cir. 1996).

<sup>20</sup> 40 C.F.R. § 1502.24.

<sup>21</sup> CEQ. 2014. Memorandum for heads of federal departments and agencies: effective use of Programmatic NEPA reviews at 18. Council on Environmental Quality, Washington D.C. December 2014.

<sup>22</sup> *Id.* at 18-19.

<sup>23</sup> *City of Carmel-by-the-Sea v. U.S. Dep’t of Transportation*, 123 F.3d 1142, 1155 (9<sup>th</sup> Cir. 1997).

<sup>24</sup> *Sierra Club v. Peterson*, 185 F.3d 349, 353-54 (5<sup>th</sup> Cir. 1999)(*superseded* on other grounds, 228 F.3d 559 (5<sup>th</sup> Cir. 2000).

the “sole objective” of the Forest Service and to direct forest managers to protect other resources such as fish and wildlife habitats.<sup>25</sup>

As explained in more detail in our discussion of timber economics in Section III., the Forest Service’s myopic focus on supplying timber for Viking or Vancouver, British Columbia’s Alcan/Transpac at a massive public cost fails to recognize the market-based transition away from federal timber dependency and toward a more diversified and sustainable economy. The Forest Service’s economic program is dead; indeed, the industry is smaller than it was over a century ago.<sup>26</sup> Timber worker earnings are less than 1% of total employment related earnings in the region; federal timber generated a fraction of a percent (0.2%) of regional employment in 2013.<sup>27</sup>

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 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.<sup>28</sup> 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.<sup>29</sup> Larger communities such as Petersburg, Wrangell and Ketchikan have fully transitioned toward economies based on tourism and fishing.<sup>30</sup>

In other words, the Central Tongass Project 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 21<sup>st</sup> 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 that simultaneously supports a massive number of federal, state, and other for-profit and not-for-profit corporate bureaucrats.

---

<sup>25</sup> S. Rep. 94-893, *reprinted in* 1976 U.S.C.C.A.N. 6662, 6671.

<sup>26</sup> See 2016 LRMP FEIS PR 769\_05\_000340 at 10 (Southeast Conference 2014).

<sup>27</sup> *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)

<sup>28</sup> 2016 LRMP FEIS at 3-547-3-689.

<sup>29</sup> *Id.* at 3-152.

<sup>30</sup> *Id.* at 3-613, 3-639, 3-684-685.

## **B. The Range of Alternatives violates NEPA**

NEPA imposes an obligation to “[r]igorously explore and objectively evaluate all reasonable alternatives.”<sup>31</sup> An agency must “consider such alternatives to the proposed action as may partially or completely meet the proposal’s goal,” meaning that it is reasonable to consider alternatives that meet other objectives.<sup>32</sup> A “reasonable” range of alternatives includes alternatives “that are practical or feasible” and not just those alternatives preferred by the agency.<sup>33</sup> NEPA requires a discussion of the alternatives “in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public.”<sup>34</sup> The key criterion for determining whether a range of alternatives is reasonable “is whether an EIS’s selection and discussion of alternatives fosters informed decisionmaking and informed public participation.”<sup>35</sup> While an EIS need not include every conceivable alternative, “[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate.”<sup>36</sup> The exploration of alternatives to an agency’s preferred course of action is critical, because “[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of an EIS to inform agency deliberation and facilitate public involvement would be greatly degraded.”<sup>37</sup>

The range of alternatives in the DEIS fails these standards. The two action alternatives both drive at the same result – intensive clearcutting of old-growth and recovering forests in a project area that cannot withstand further loss of habitat. The alternatives provide no clear basis for choice and no means for the public to compare and provide comments on alternatives that would allow for the retention of forested habitat that is essential to maintaining at-risk fish and wildlife populations and reducing significant harm to socio-economic sectors that depend on those resources. The alternatives are not sufficiently distinctive to sharply define the issues and allow for informed decisionmaking.

---

<sup>31</sup> 40 C.F.R. § 1502.14(a); *see also Barnes v. U.S. Dep’t. of Transp.*, 655 F.3d 1124, 1131 (9<sup>th</sup> Cir. 2011)(“Congress created NEPA to protect the environment by requiring that federal agencies carefully weigh environmental considerations and consider potential alternatives to the proposed action before the government launches any major federal action”).

<sup>32</sup> *City of New York v. U.S. Dep’t of Transp.*, 715 F.2d 732, 742-742 (2<sup>nd</sup> Cir. 1981).

<sup>33</sup> Council on Environmental Quality (CEQ), Forty Most Asked Questions, Questions 2A and 2B; 40 C.F.R. §§ 1502.14, 1506.2(d); *available at* <http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm>.

<sup>34</sup> 40 C.F.R. §§ 1502.14.

<sup>35</sup> *Westlands Water Dist. V. U.S. Dep’t of Interior*, 376 F.3d 853, 872 (9<sup>th</sup> Cir. 2004)(citations omitted).

<sup>36</sup> *Id.* at 868; *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 551 (1978).

<sup>37</sup> *New Mexico ex rel. Richardson*, 565 F.3d 683, 708 (10<sup>th</sup> Cir. 2009)(citations omitted).

**1. The Range of Alternatives is flawed because there are no meaningful quantitative differences in timber volumes**

The DEIS analyzes only two action alternatives – Alternative 2 would extract 230 MMBF of timber – nearly two-thirds old-growth – from 13,500 acres over the next 15 years.<sup>38</sup> Alternative 2 would also add 25 miles of NFS road construction, 93 miles of temporary road construction, up to 80 rock quarries, and “improve” 82 miles of closed roads for timber operators, adding 128 new fish stream crossing structures.<sup>39</sup>

Alternative 3 would extract 201 MMBF of timber from 8,075 acres of old-growth forest and 3,650 acres of recovering second-growth forest.<sup>40</sup> The Forest Service would construct 22 miles of new road, 82 miles of temporary road, up to 70 rock quarries, upgrade 71 miles of closed roads and add up to 37 new stream crossing structures.<sup>41</sup> This alternative is marginally different only because it responds to the only significant issue identified in the DEIS – that the project would decrease the quantity and quality of deer winter habitat and Kuiu marten habitat, and connectivity for both species.<sup>42</sup>

The Forest Service would implement both alternatives in the exact same ten Timber Analysis Areas (TAAs). Both alternatives would include a Forest Plan Amendment that rescinds adopted Scenic Integrity Objectives so that the Forest Service could place large clearcuts in clear view of tourists and communities.<sup>43</sup>

The CEQ’s “Forty Questions” explains that a range of alternatives should include quantitative differences in how an agency analyzes a proposal:

For some proposals there may exist a very large or even infinite number of possible reasonable alternatives. For example, a proposal to designate wilderness areas within a National Forest could be said to involve an infinite number of alternatives from 0 to 100 percent of the forest. When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS. An appropriate series of alternatives might include dedication of 0, 10, 30, 50, 70, 90 or 100 percent of the Forest to wilderness. What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case.<sup>44</sup>

---

<sup>38</sup> DEIS at 2-23, 2-30.

<sup>39</sup> *Id.* at 2-23.

<sup>40</sup> *Id.* at 2-23-24.

<sup>41</sup> *Id.* at 2-25.

<sup>42</sup> *Id.* at 1-14.

<sup>43</sup> *Id.* at 1-7.

<sup>44</sup> <https://ceq.doe.gov/nepa/regs/4011/1-10.HTM> (CEQ Forty Most Asked Questions, question 1b).

The Ninth Circuit case law mirrors this guidance by identifying a need for alternatives that provide for meaningful quantitative distinctions. In *State of Cal. v. Block*, the Forest Service prepared a programmatic EIS for designating roadless areas and analyzed 8 action alternatives that would allocate roadless acreage between wilderness and non-wilderness designation.<sup>45</sup> The court concluded that the range of alternatives was unreasonable in large part because the Forest Service limited its consideration of the amount of acreage available for Wilderness designation to no more than 33% of the roadless acreage.<sup>46</sup> The court explained that:

... without any explanation, the Final EIS seriously considered only those alternatives that allocate more acreage to Nonwilderness than to Wilderness. Moreover, with the sole exception of Alternative I, Nonwilderness acreage allocations exceed Wilderness allocations by a substantial margin, ranging from five-to-two for Alternative D, to nineteen-to-one for Alternative E. See Table # 1, supra. While nothing in NEPA prohibits the Forest Service from ultimately implementing a proposal that allocates more acreage to Nonwilderness than to Wilderness, it is troubling that the Forest Service saw fit to consider from the outset only those alternatives leading to that end result.<sup>47</sup>

Similarly, in *Center for Biological Diversity v. Nat. Highway Traffic Safety Admin.*, the 9<sup>th</sup> Circuit reviewed a range of alternatives that would regulate vehicle emissions through fuel economy standards.<sup>48</sup> The court characterized the alternatives as “hardly different” from the agency’s selected alternative and noted that none of the alternatives would achieve anything more than a small decrease (1.8 to 2.6%) from baseline emission levels.<sup>49</sup> The court explained that the agency considered “a very narrow range of alternatives” with a minimal range of impacts.<sup>50</sup> All of the alternatives derived from a single study - NHTSA’s cost-benefit analysis.<sup>51</sup> The court faulted NHTSA’s for failing to consider more stringent standards that would allow for increased conservation benefits.<sup>52</sup>

Also, in *New Mexico ex rel. Richardson*, the state of New Mexico and a coalition of environmental organization challenged a BLM land management plan amendment that would determine which public lands in the planning area would be open to oil

---

<sup>45</sup> *State of Cal. v. Block*, 690 F.2d 753, 766 (9<sup>th</sup> Cir. 1982).

<sup>46</sup> *Id.* at 766-768.

<sup>47</sup> *Id.* at 768.

<sup>48</sup> *Center for Biological Diversity v. Nat. Highway Traffic Safety Admin.*, 538 F.3d 1172, 1218 (9<sup>th</sup> Cir. 2008).

<sup>49</sup> *Id.*

<sup>50</sup> *Id.* at 1218-1219.

<sup>51</sup> *Id.* at 1218.

<sup>52</sup> *Id.* at 1219.

and gas leasing.<sup>53</sup> The BLM eliminated alternatives that would have heightened environmental protections relative to the existing plan and considered only two action alternatives despite extensive public comment requesting alternatives that would protect environmentally sensitive areas.<sup>54</sup> The court noted that there were “powerful” environmental values associated with eliminated alternatives that provided for more significant reductions in lands open to development, and concluded that multiple-use principles required the BLM to include a conservation-oriented alternative in its NEPA process.<sup>55</sup> And finally, in *Muckleshoot Indian Tribe v. U.S. Forest Service*, the 9<sup>th</sup> Circuit held that the Forest Service “failed to consider an adequate range of alternatives where the EIS considered only a no action alternative along with two virtually identical alternatives.”<sup>56</sup>

The above discussion demonstrates that a reasonable range of alternatives must include alternatives that provide for meaningful comparison of courses of action that will generate conservation benefits – particularly when there are significant environmental values that counter the agency’s development interests. Here, the Forest Service proposed only two similar logging alternatives occurring in the exact same geographic location and failed to even consider lower volume alternatives despite the massive net public losses and serious risks to multiple use resources caused by any level of additional habitat degradation in the project area.

## **2. The proposed range of alternatives ignores the Forest Service’s multiple use mandates**

An agency’s NEPA analysis must be informed by the laws driving the action being reviewed.<sup>57</sup> Here, NFMA and its implementing regulations provide the substantive duties with which the agency must comply in amending the Forest Plan. As described above, NFMA requires that forest plans provide for multiple uses, including recreation, watersheds, wildlife, and fish.<sup>58</sup> NFMA also sets a hard floor with respect to managing flora and fauna populations: the agency must provide for the “diversity of plant and animal communities.”<sup>59</sup> The Forest Service has substantive duties under NFMA with respect to wildlife and plant populations in developing its narrow set of alternatives. The alternatives proposed by the Forest Service are entirely driven by Viking Lumber Company and Alcan Forest Products LLC. This approach does not reflect the intent of Congress. It is instead simply the desire of the Forest

---

<sup>53</sup> *New Mexico ex rel. Richardson*, 565 F.3d at 688-689.

<sup>54</sup> *Id.* at 709.

<sup>55</sup> *Id.* at 710-11.

<sup>56</sup> *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 812-813 (9<sup>th</sup> Cir. 1999).

<sup>57</sup> *See Or. Nat. Des. Ass’n v. U.S. BLM*, 625 F.3d 1092, 1109 (9<sup>th</sup> Cir. 2010).

<sup>58</sup> 16 U.S.C. § 1604(e).

<sup>59</sup> *Id.* § 1604(g)(3)(B).

Service to serve its primary constituency. The legislative purposes of NFMA carry more weight for the purposes of the NEPA analysis.<sup>60</sup>

Plainly, plant and wildlife viability are a central purpose of NFMA and its implementing regulations. This should have been a driving feature behind whatever ***funded*** activities the Forest Service intends to do in the Central Tongass Project area.<sup>61</sup> Downscaled logging alternatives would elevate substantive viability considerations. And it would give the agency the opportunity to effectuate NFMA's mandate to meet multiple use objectives—not just intensive timber harvest. The agency's dismissal of a no old-growth and downscaled timber harvest alternatives on grounds that it did not facilitate the narrow commercial timber harvest goals failed to reconcile the agency's substantive obligations.<sup>62</sup>

### **3. Conclusion: the Forest Service should rescind the DEIS and re-scope alternatives**

The range of alternatives does not provide a broad enough range of courses of action to allow for meaningful public comment or sharp distinctions. The failure to include downscaled timber volume alternatives is necessary to meet NEPA's requirement to "foster informed decision-making and informed public participation."<sup>63</sup> Only by studying a reasonable *range* of alternatives can the agency adequately compare the environmental impact of its proposed action, and allow the public to weigh in on alternative courses of action.<sup>64</sup> The alternatives requirement is critical to serving NEPA's primary purposes of ensuring fully informed decisions and providing for meaningful public participation in environmental analyses.<sup>65</sup>

By examining both the environmental impacts of the desired path and the impacts of other reasonable alternatives, NEPA enables an agency, and the public it serves, to evaluate whether the government has other options it could take that might be less damaging to the natural environment.<sup>66</sup> Here, the agency's proposed exclusion downscaled logging alternatives deprived the public and the decisionmaker this fundamental exercise required by NEPA.

---

<sup>60</sup> See *Or. Nat. Des. Ass'n*, 625 F.3d at 1109 (explaining that the considerations made relevant by the substantive statute driving the proposed action must be addressed in the NEPA analysis)].

<sup>61</sup> *Cf. id.*

<sup>62</sup> *Id.* at 1124 (finding that an agency violated NEPA because it "uncriticall[y] privilege[d] one form of use over another").

<sup>63</sup> *California v. Block*, 690 F.2d at 767.

<sup>64</sup> See 42 U.S.C. § 4332.

<sup>65</sup> See 40 C.F.R. § 1500.1(b), (c).

<sup>66</sup> *Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1180 (9th Cir. 1990); *California v. Block*, 690 F.2d at 767.

### **III. The Forest Service lacks local customers to support proposed cut levels in central southeast Alaska**

Defenders objected to the recent Forest Plan amendment in part because the Forest Service's timber sale planning procedures and methodology have consistently overestimated market demand for federal timber in southeast Alaska. The amendment process failed to fix an ongoing programmatic failure and provide a realistic assessment of markets and demand for federal timber. The proposed cut levels for this project rely on hypothetical scenarios developed in Daniels (2015) that imagine a competitive timber industry that can retain historical market shares. But the projections ignore explicit demand determinants such as real price and cost data and market trends. The new scenarios upon which this project relies thus reflect misleading economic assumptions.

Our scoping comments requested that the DEIS address the timber economy decline and disclose that large timber sale purchasers employ a small amount of people in southeast Alaska, likely none at all in central southeast Alaska, and that the primary employment benefit will accrue to the United States' chief trade rival, China, where large timber sale purchasers send federal timber for processing.

An EIS serves two functions: (1) to ensure that agencies take a hard look at the environmental impacts of proposed projects and (2) to ensure the availability of information to the public so as to enable public participation in the decisionmaking process.<sup>67</sup> An EIS cannot serve these functions if it reflects misleading economic assumptions.<sup>68</sup> This includes an obligation to disclose any uncertainties about the feasibility of an agency plan or project, such as the relationship between long-term, global timber market declines and the agency's projections. As explained by the Fourth Circuit:

Misleading economic assumptions can defeat the first function of an EIS by impairing the agency's consideration of the adverse environmental effects of a proposed project. NEPA requires agencies to balance a project's economic benefits against its adverse environmental effects. The use of inflated economic benefits in this balancing process may result in approval of a project that otherwise would not have been approved because of its adverse environmental effects. Similarly, misleading economic assumptions can also defeat the second function of an EIS by skewing the public's evaluation of a project.<sup>69</sup>

Further, the Administrative Procedure Act (APA) requires that an agency "examine the relevant data and articulate a satisfactory explanation for its action,

---

<sup>67</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); *State of Cal. v. Block*, 690 F.2d 753, 767 (9<sup>th</sup> Cir. 1982).

<sup>68</sup> *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d, 437, 446 (4<sup>th</sup> Cir. 1996).

<sup>69</sup> *Hughes River Watershed Conservancy*, 81 F.3d at 446; see also *Columbia Basin Land Protection Ass'n*, 643 F.2d at 594-95 (explaining that NEPA requires an EIS to balance the environmental costs of a project against its economic and technological benefits).

including a “rational connection between the facts found and the choice made.”<sup>70</sup> An agency action is “arbitrary and capricious if the agency ... entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” [*Id.*]. The DEIS invents a large timber workforce operating in central southeast Alaska communities and then manufactures imaginary manufacturers. The timber economic and socio-economic analyses are arbitrary, counter to employment data, and implausible.

**A. The Forest Service’s assumptions about the need for a massive timber supply are misleading**

Defenders submits that the Forest Service’s stated need for large volumes of timber to supply local employment and support a local wood products industry is wrong. The southeast Alaska workforce has shifted to employment opportunities in other business sectors, making the “need” to maintain infrastructure and workforce superfluous. The actual habitat remediation needs – reducing sediment inputs into streams from the poorly maintained transportation system and repairing red pipes – are road construction projects for which local labor and infrastructure exist that function independently of the Forest Service’s timber sale program.

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.”<sup>71</sup> The competitive disadvantage is particularly significant for southeast Alaska timber.<sup>72</sup> The Pacific Northwest Research Station’s own publications verify these significant downward trends.<sup>73</sup>

Defenders objected to old growth cut levels established in the Amendment because the Forest Service’s approach to setting desired levels of timber removals ignores market factors entirely – factors that have changed considerably since the 2008 TLMP Amendment.<sup>74</sup> The timber industry in southeast Alaska has become very small during the 21<sup>st</sup> century. 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.<sup>75</sup> 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

---

<sup>70</sup> *Motor Vehicle Manufacturers Ass’n v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 43 (1983).

<sup>71</sup> See 2016 LRMP FEIS PR Folder 763\_02\_000084 (Niemi 2016, Socioeconomic Comments on Timber Demand at 12.

<sup>72</sup> *Id.* at 14.

<sup>73</sup> See 2016 LRMP FEIS PR Folder 763\_02\_000088, documents PNW RB-265 (Zhou 2013)) and PNW RB-266.

<sup>74</sup> See 2016 LRMP FEIS PR Folder 763\_02\_000084 (Niemi 2016, Socioeconomic Comments on Timber Demand at 15-16.

<sup>75</sup> PR 832\_0357 at 2 (Parrent & Grewe 2018).

production in the region.<sup>76</sup> The Forest Service already has 100 MMBF available in the Wrangell and Petersburg Ranger Districts.<sup>77</sup>

**B. The DEIS provides misleading information about local employment in the timber industry**

The DEIS asserts that this large timber sale will support “Alaskan employment income,” “[l]ocal jobs related to logging,” and “[l]ocal jobs related to sawmill ... mfg.”<sup>78</sup> It promises a project total of 548 “local” old growth and young growth logging jobs, and 106 “local” mill jobs.<sup>79</sup> In what is perhaps an editing mistake, the socio-economics section even claims that these figures are “the average number of jobs supported annually.”<sup>80</sup> The DEIS then claims that if there were no Central Tongass Project, the communities of Kake, Wrangell and Petersburg would suffer based on “existing businesses in forest products that are positioned to capitalize on opportunities to sustain and increase employment in mills and other forest products manufacturing.”<sup>81</sup>

The Forest Service’s claims of local jobs are confusing. The Petersburg economy did fine following the end of the pulp mill era because it is primarily based on commercial fishing.<sup>82</sup> Petersburg timber employment declined from five to two people in between 1999 and 2007.<sup>83</sup> The two mills in operation in 2006 processed a total of 250 MBF of timber.<sup>84</sup>

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.<sup>85</sup> 15 MMBF of Tongass timber employed a total of 24 loggers in 2017 – most from out of state.<sup>86</sup> The absence of logging and high volume mill businesses should be obvious with Forest Service offices in Petersburg and Wrangell – did some new employee punch numbers into a computer, and nobody caught the error? As shown from the Forest Service’s 2016 market demand study,

---

<sup>76</sup> *Id.* at 5, Table 5.

<sup>77</sup> DEIS at 3-315.

<sup>78</sup> *Id.* at 3-68, 3-316.

<sup>79</sup> *Id.* at 3-68.

<sup>80</sup> *Id.* at 3-316.

<sup>81</sup> *Id.* at 3-68; 3-316.

<sup>82</sup> 2016 Forest Plan FEIS 3-662.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> PR 832-0537 at 4, Table 4 (Parrent & Grewe 2018)).

<sup>86</sup> PR 832\_0614 at 4 (Daniels 2018); [https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3\\_4326267](https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4326267) <https://www.fs.usda.gov/project/?project=51766>

the agency’s timber economist is well aware that only one entity monopolizes the small amount of manufacturing in the region:

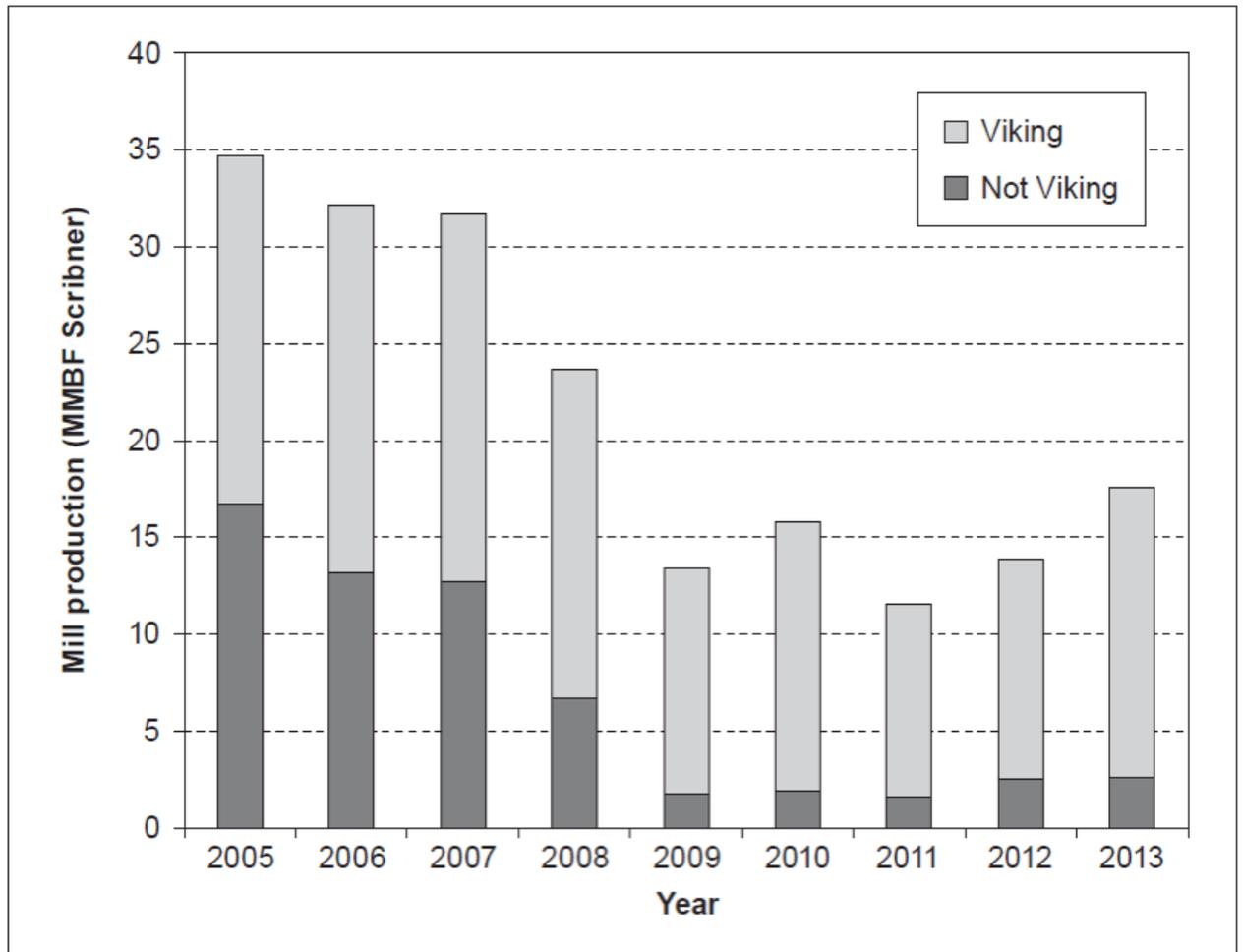


Figure 2—Lumber production, Viking Lumber Company and all other southeast Alaska producers.

The DEIS thus wrongly assumes that a project aimed primarily at supplying Viking Lumber and perhaps Alcan/Transpac with federal timber would provide a meaningful number of jobs in central southeast Alaska communities and grossly overestimates “local jobs.” It is beyond dispute that in general there is very little timber manufacturing employment in the region.<sup>87</sup> Timber removals in southeast Alaska overall at best provide 1% of total regional employment and 3% of total resource-based employment in the region.<sup>88</sup> Federal timber was responsible for a fraction of a percent (0.2%) of regional employment in 2013.<sup>89</sup> Timber worker

<sup>87</sup> 2016 LRMP FEIS at 3-485, Table 3.22-4.

<sup>88</sup> *Id.* at 3-481, Table 3.22-3.

<sup>89</sup> *Cf. id.* at 3-480, Table 3.22-2 (53,145 total jobs); *id.* at 3-485, Table 3.22-4 (federal timber provided 123 jobs).

earnings are less than 1% of total employment related earnings in the region.<sup>90</sup> The significance of these jobs relative to the overall economy is even smaller because employment data do not include the thousands of workers who are self-employed in the commercial fishing industry.<sup>91</sup>

And how many loggers are Alaskan residents? Broadly, non-resident employment accounts for a significant amount of jobs in southeast Alaska's resource-dependent sectors.<sup>92</sup> The LRMP 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.<sup>93</sup> 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.<sup>94</sup>

As noted by Forest Service personnel, the region's large timber sale purchasers import loggers from other states.<sup>95</sup> There is no existing logging company in nearby Ketchikan, requiring timber sale purchasers to import workers from elsewhere.<sup>96</sup> Thus, in all likelihood, the majority of logging employment generated by this project will likely accrue to reality TV show "Axe Men" from Oregon and Washington. Federal timber provides such a small amount of jobs that it would not be difficult to answer this question, but the DEIS arbitrarily fails to seek out this information.

Further, there appears to be little workforce interested in or available for the 20<sup>th</sup> century jobs the Forest Service envisions as the future for the region. 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."<sup>97</sup> 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 unacceptable business to be in."<sup>98</sup> And these jobs can be unpleasant or even dangerous experiences.<sup>99</sup>

---

<sup>90</sup> Raincoast Data 2017 at 3. Available at <http://raincoastdata.com/portfolio>

<sup>91</sup> *Id.* at 4, 6.

<sup>92</sup> 2016 LRMP FEIS at 3-483.

<sup>93</sup> 2016 LRMP FEIS PR 769\_05\_000329 at 16-18, 22 (ADOL 2015).

<sup>94</sup> 2016 LRMP FEIS PR 769\_05\_000344; -000314; -000318; - 000319 (Alaska Department of Labor data).

<sup>95</sup> [https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3\\_4326267](https://cara.ecosystem-management.org/Public/DownloadCommentFile?dmdId=FSPLT3_4326267)

<sup>96</sup> <https://www.fs.usda.gov/project/?project=51766>

<sup>97</sup> <http://raincoastdata.com/portfolio/southeast-alaska-2020-economic-plan>

<sup>98</sup> *Id.*

<sup>99</sup> [https://www.osha.gov/pls/imis/establishment\\_inspection\\_detail?id=314290701](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-logging-phoenix-logging-company-that-does-not-care-about-t-1276625>

Finally, the DEIS vastly overestimates potential employment from second growth logging. The Forest Service’s 2018 employment coefficient is 2.30 logging jobs per MMBF.<sup>100</sup> But timber operators targeting small diameter trees use mechanized equipment – a feller buncher - to replace loggers.<sup>101</sup> The DEIS however, assumes ground-based yarding and felling by chainsaw in order to estimate 173 logging jobs.<sup>102</sup> Feller bunchers minimize the need for loggers – by as much as two-thirds.<sup>103</sup>

In sum, the DEIS provides highly misleading information and failed to confront significant economic issues and changing workforce needs in order to assess whether this timber project would meet the stated local employment need.

### **C. The DEIS must address the inconsistency between raw log exports and local jobs**

The recent LRMP Amendment and this project purport to provide employment opportunities for southeast Alaska residents in the timber “industry.” The 2016 LRMP timber goals and objectives require the Forest Service to provide for a timber processing industry. The plan goal for timber directs the Forest Service to “[m]anage the timber resource for production of saw timber and other wood products from lands suitable for timber production.”<sup>104</sup> The amended objective similarly directs the Forest Service to “[m]anage young growth to provide commercial timber products” and to supply volume to “local mills.”<sup>105</sup> It is impossible to reconcile the stated local employment need for this project, which would remove nearly a quarter billion board feet of public forest in Alaska mostly for processing in Asian mills under the Forest Service’s practice of routinely waiving its already generous export policies.<sup>106</sup>

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.<sup>107</sup> 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 LRMP 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.<sup>108</sup> According to the Alaska Division of Forestry, raw log exports

---

<sup>100</sup> PR 832\_0614.

<sup>101</sup> Exhs. 1, 2, 3.

<sup>102</sup> DEIS at 3-68.

<sup>103</sup> Exhs. 1, 2, 3, 4.

<sup>104</sup> 2016 LRMP at 2-5.

<sup>105</sup> *Id.*

<sup>106</sup> Exhs. 5, 6.

<sup>107</sup> 2016 LRMP FEIS, Appx. H at H-4-5.

<sup>108</sup> 2016 LRMP FEIS at 3-492-3-493, Tables 3.22-8, 3.22-9

significantly reduce local employment – a position that recognizes that transportation and logging workers are less likely to be residents than sawmill workers.<sup>109</sup>

Federal timber in 2017 resulted in only 8.3 MMBF of mill production.<sup>110</sup> 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 allow export of all federal timber from this project to Chinese mills. The Forest Supervisor is desperate to meet Tongass Advisory Committee timber targets in order to maintain funding for the timber sale program.<sup>111</sup>

This job transfer to foreign timber processors should be critical to ascertaining whether the Central Tongass Project would meet even the purported purpose of providing a forest products industry that provides jobs for southeast Alaskans. The DEIS acknowledges that the majority of Alaska timber goes to China – 76% in 2015.<sup>112</sup> 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?<sup>113</sup>

Because the Forest Service’s justification for this project relies primarily on local economic benefits, raw log exports and interstate shipments are an important issue with regard to the economic analysis for this project. The DEIS violated NEPA by relying on inaccurate economic information that bears on the environmental and employment consequences of the export policy, export policy waivers and even the agency’s fiscal responsibility to the General Treasury.

An even larger concern is that the DEIS provides a “Figure 8” that purports to show the percentage of timber exported as raw logs.<sup>114</sup> Figure 8 graphically displays a range of log export volume from 24 percent to 56 percent since 2009.<sup>115</sup> If Figure 8 were correct, timber sale purchasers have exported roughly 1/3 of the total Tongass timber harvest since 2009. The problem is that there is a serious discrepancy between the “not exported” column and actual mill production in southeast Alaska.

WHERE IS THE MISSING TIMBER? According to the Forest Service’s own mill production reports, southeast Alaska sawmills processed a maximum of 125.3 MMBF of federal timber since 2009 out of a total take of 295 MMBF. Actual mill production

---

<sup>109</sup> <http://forestry.alaska.gov/timber/index>

<sup>110</sup> PR 832-0537 at 6, Table 6a (Parrent & Grewe 2018).

<sup>111</sup> PR 0832\_0007.

<sup>112</sup> DEIS at 3-317.

<sup>113</sup> <https://www.nytimes.com/2018/09/17/us/politics/trump-china-tariffs-trade.html>

<sup>114</sup> DEIS at 3-67.

<sup>115</sup> *Id.*

of federal timber is likely to be 100 MMBF over that time period because timber from the state of Alaska provided 4.4 MMBF annually during years with available data:<sup>116</sup>

Year	Tongass Harvest	Tongass not exported	Total mill production from all landowners	Tongass mill	Tongass log exports
2017	20	13.4	15.5	8.4	6.6
2016	45	20	17.9		25.0
2015	57	43.6	18.5		13.4
2014	39	24.1	18.8		14.9
2013	36	27.0	17.5	13.7	9.0
2012	21	12.1	13.8		8.9
2011	33	17.0	11.5		16.0
2010	36	23.1	15.8	13.7	12.9
2009	28	14.4	13.4	8.9	13.7
Total	295	204.7	142.8	17.5	120.2

Simply put, timber sale purchasers took 295 MMBF of federal timber from 2009 – 2017. During that time period, timber sale purchasers milled somewhere between 100 MMBF (the most likely number) and 125.3 MMBF (assuming no milling of state timber in 2011-2012 and 2014-2016). Timber sale purchasers exported 120.2 MMBF. There are 50 – 70 MMBF missing, or, put another way, 3,000 acres of forested public land. Is it in China? The missing timber significantly bears on the Forest Service’s employment projections – how can there be 100 mill jobs? Also, it means the Forest Service is not only deceiving itself and the public with this project, but perhaps also even the 45<sup>th</sup> 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.

---

<sup>116</sup> Sources: PR 832\_0611 (spreadsheet showing underlying data for Figure 8; PR 832\_0357 (Parrent & Grewe 2018); Parrent, D. & N. Grewe. 2017. Report to Ecosystem Planning and Budget, Tongass National Forest 2016 Sawmill Capacity and Production Report.



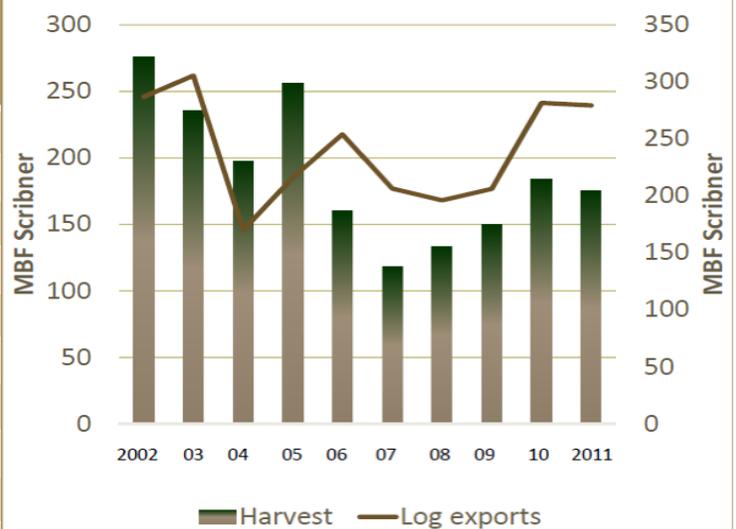
A ship being loaded with logs just north of the Viking mill. The timber is bound for China. Photograph: Dave Beebe

The Forest Service's own economist, Jean Daniels is well aware that Alaska timber company exports exceed reported harvest:



## We found data discrepancies after converting to MBF

Year	AK log exports, USITC MBF	Alaska harvest, PPET MBF
2002	286,976	276,132
2003	305,588	235,797
2004	169,872	197,892
2005	216,021	255,869
2006	254,053	160,472
2007	206,456	117,910
2008	196,157	133,206
2009	206,197	150,044
2010	281,610	184,292
2011	279,398	175,394



### Log export volume > Harvest volume?

A lag between harvest and export does not explain these persistent data discrepancies. What is happening here? Are Viking Lumber and Alcan stealing federal timber? Are they manipulating conversion factors after scaling? Both? However, the agency is doing nothing to correct this problem as it rushes forward to implement the Tongass Advisory Committee's timber sale program with two landscape level analyses that will collectively remove nearly a billion board feet over the next decade and a half. Or perhaps a billion and half board feet – who knows?

In any event, the employment information provided in the DEIS is highly misleading.

**D. The DEIS fails to disclose serious problems with the Petersburg Ranger District's administration of large timber sales**

In the previous section we noted serious discrepancies in harvest, milling and export data over two different time periods. The discrepancy between exports and reported harvests from 2002 – 2011 is half a billion board feet. One common factor during both time periods is that Viking Lumber Company was the primary purchaser of large timber sales in southeast Alaska. Rather than planning a large timber to justify its budget, the Forest Service should be contacting an independent enforcement agency and investigating fraud. Defenders reiterates its request from scoping that the Forest Service cease planning on this project because of the inability to administer timber sales because of oversight, contractual and appraisal issues. As reported in 1996 by the Public Employees for Environmental Responsibility, 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. Defender's Board is well aware that the "Alaska Rules" still apply through groundtruthing the Tonka Timber project, where Viking would clearcut deer winter range prescribed for selective cutting, and expand cutting units beyond the prescribed acreage to whatever size Viking deemed fit. The discrepancy between timber exports and harvests suggests outright theft as well.

In 2016, the Washington Office reviewed the Alaska Region's timber sale and administration processes for two Viking Lumber timber sales – the Petersburg Ranger District's 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 Lumber Company to highgrade 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 removals, etc. were self-reporting by Viking Lumber Company.<sup>117</sup> These problems are a particular concern given that a major purpose of this project is to "improve forest ecosystem health."

Information from PEER's website indicates that the failure of the Forest Service 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. On-the-ground operators admit that harvest prescription or contract terms were irrelevant to what happened on the ground – they cut only according to Viking Lumber's instructions. Forest Service maladministration of these timber sales through various avenues cost taxpayers hundreds of thousands of dollars. The appraisal methods resulted in artificially low appraisal rates for higher value species such as Alaska Yellow Cedar and Sitka Spruce. And the logging and haul costs were much lower than estimated by the Forest Service, resulting additional windfalls to Viking Lumber.

Now, after adding to the taxpayer costs of the program through poor oversight and erroneous cost analyses, the Forest Service wants to design a nearly quarter of a billion board foot timber sale on heavily fragmented islands with significant ecological problems for a timber operator to run amok cutting the most ecologically important forested areas remaining for the sake of "ecosystem health" while the Forest Service looks the other way or pulls out the check book any time Viking needs more cash flow.

Defenders submits these issues also bear significantly on the agency's ability to implement standards and guidelines, such as they are, intended to protect other resource 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?

In sum, the Tongass National Forest lacks the institutional capacity to administer a large timber sale. Further NEPA analysis must disclose and discuss the

---

<sup>117</sup> See, e.g. [https://www.peer.org/assets/docs/fs/4\\_3\\_17\\_Timber\\_Sale\\_Review.pdf](https://www.peer.org/assets/docs/fs/4_3_17_Timber_Sale_Review.pdf) <https://www.peer.org/news/news-releases/forest-service-scalped-on-tongass-timber-sales.html>

Forest Service's ability to ensure the accountability of its timber sale program. This lack of accountability was particularly evident in the recent public hearing in Petersburg for this project – despite the serious loss of public funds and program audit, the Forest Supervisor had no answers and appeared to be ignorant of this issue.

#### **IV. Wildlife habitat impacts**

Defenders scoping comments requested that the Forest Service do and document surveys for wildlife species present in the project area and discuss their locations and preferred habitat uses in the DEIS. This analysis should entail more than a mere quantitative approach to measuring productive old growth losses at various scales. Instead, there needs to be consideration of specific habitat features that are essential to wildlife viability and abundance, particularly in light of the high degree of fragmentation in the project area. Project area watersheds have been subject to intensive management during the past six decades. This means that numerous second-growth stands have reached the stem exclusion stage concurrently or will do so shortly after implementation of Central Tongass Project timber sales. No doubt, wildlife populations in the project area would benefit from delaying any subsequent entries for some time.

The DEIS violated NEPA, NFMA and ANILCA by failing to provide an adequate, site-specific discussion of impacts to Sitka black-tailed deer, Alexander Archipelago wolves and Queen Charlotte goshawks and other wildlife species. The DEIS fails to assess actual impacts of timber sales because the agency would offer them anywhere within the vast area encompassed within the ten Timber Analysis Areas. There are no unit cards made available so that the public can review cutting unit maps and information showing location of key wildlife habitat features.

##### **A. The Forest Service needs to prepare a revised DEIS that discloses major effects to deer populations inhabiting the Timber Analysis Areas**

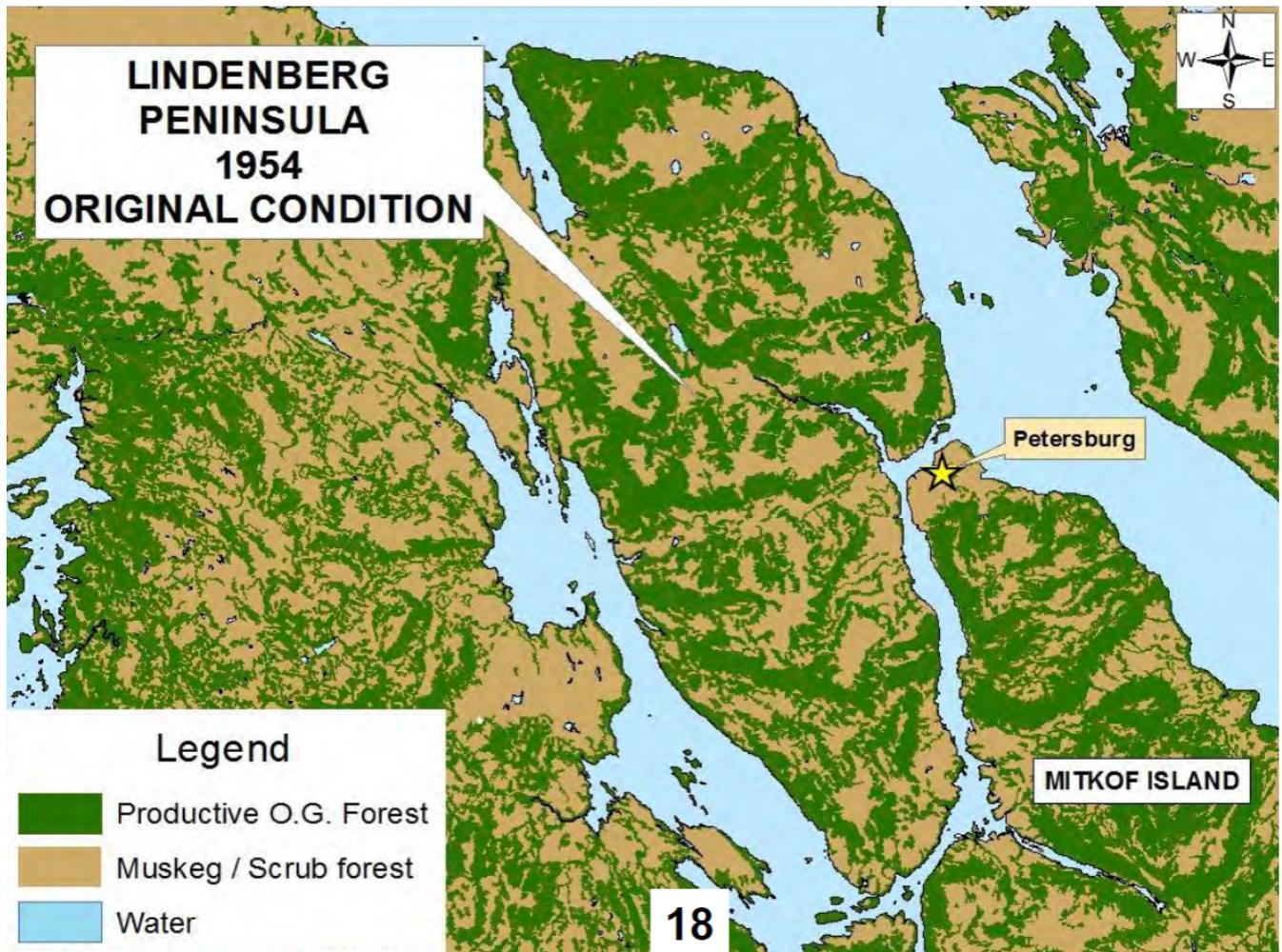
Our scoping comments expressed significant concerns about the lack of high value winter deer range in the project area, whether on Mitkof, Kupreanof or Wrangell Island and consequently the impacts of this project on remaining deer habitat. Many of the proposed timber analysis areas abut past clearcuts where canopy closures are now or will soon be occurring. The Central Tongass Project will further fragment or directly remove the little remaining winter deer habitat – but the DEIS does not specify how much, or precisely where these impacts will occur. 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. Given the importance of deer, it was essential for the DEIS to consider meaningful site-specific mitigation measures such as adjusting OGR boundaries in a way that would provide additional protection.

The Forest Plan implements NFMA’s species viability provisions by requiring that the Forest Service “[p]rovide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable non-native species well-distributed in the planning area.”<sup>118</sup> The Petersburg and Wrangell Ranger Districts have failed to meet this standard for decades by disproportionately removing deer winter range. 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

---

<sup>118</sup> Forest Plan at 4-85.

Mitkof designated for more logging as part of this project.<sup>119</sup> Nearly half of all the large-tree old growth forest has already been removed from the Kupreanof/Mitkof biogeographic province.<sup>120</sup> Nearly a quarter of the prime winter deer habitat across the province is gone.<sup>121</sup> More than half of the winter deer habitat is in areas managed for timber.<sup>122</sup> As shown by graphics prepared by the Alaska Department of Fish and Game, the disproportionate effect of past highgrading deer winter habitat and existing habitat loss is staggering in the Mitkof, Thomas Bay, Portage Bay and Tonka Timber Analysis Areas.

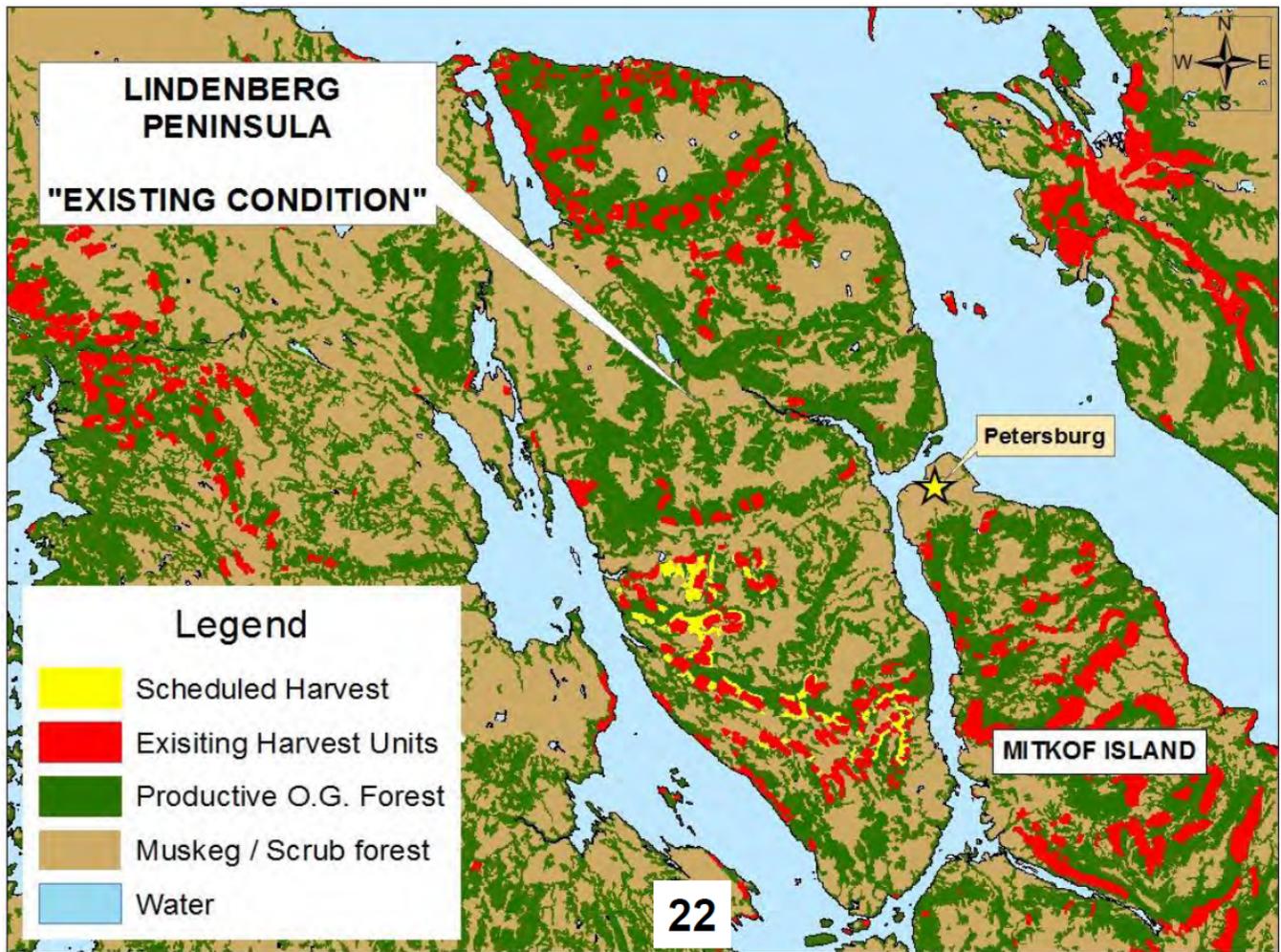


<sup>119</sup>[https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/PDFs/4.17\\_Kupreanof-Mitkof.pdf](https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/PDFs/4.17_Kupreanof-Mitkof.pdf)

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

<sup>122</sup> *Id.*



The Forest Service has also removed similarly disproportionate levels of large tree forest/winter deer habitat from the Wrangell, Etolin and Zarembo Timber Analysis Areas.<sup>123</sup> 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.”

<sup>123</sup>[https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/PDFs/4.18 Wrangell Zarembo Etolin.pdf](https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/PDFs/4.18%20Wrangell%20Zarembo%20Etolin.pdf)

## **1. The Central Tongass Project will have major adverse impacts to deer populations**

Despite this historically high habitat loss, declining population trends and predation risks from wolves and black bears, the DEIS anticipates only moderate effects to deer, meaning noticeable effects to individuals, some long-term consequence to individuals or habitat, with some negative impacts affecting short-term population levels.<sup>124</sup> Defenders submits that this conclusion is wrong. Had the agency conducted an appropriate level of site-specific analysis, it would be necessary to identify “major” effects - meaning “long-term, vital consequence to the individuals, populations or habitat and large, short-term declines with long-term population numbers significantly depressed.”<sup>125</sup> For example, the 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.<sup>126</sup> 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.<sup>127</sup>

In other words, out of 13 Wildlife Analysis Areas analyzed, only two would theoretically support enough of deer to maintain wolf populations and human harvest. And because the Forest Service failed to perform site-specific analyses of impacts to deer within specific Timber Analysis Areas, the DEIS ignores deer population trends within the two WAAs that would meet the guideline - deer are extinct or nearly extinct on Kuiu Island.<sup>128</sup> ADF&G pellet surveys from north Kuiu Island have historically been the lowest of any surveyed WAA in the project area.<sup>129</sup> The status of deer populations on Kuiu Island warrants detailed analysis – not only because it is a proposed Timber Analysis Area, but also because it illustrates the serious potential consequences of this project for deer in other Timber Analysis Areas. Northern Kuiu Island became a predator pit, combining high levels of

---

<sup>124</sup> DEIS at 3-104; 3-150.

<sup>125</sup> *Id.* at 3-150.

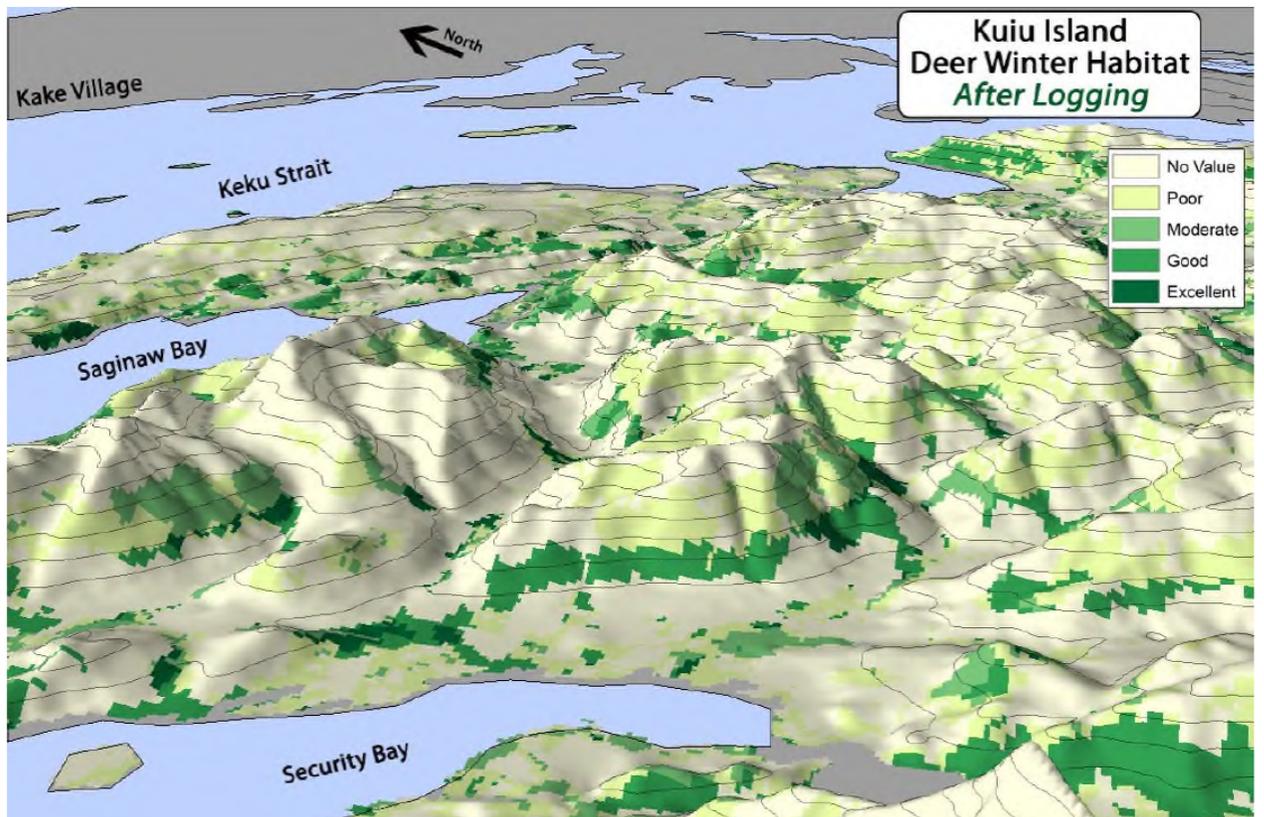
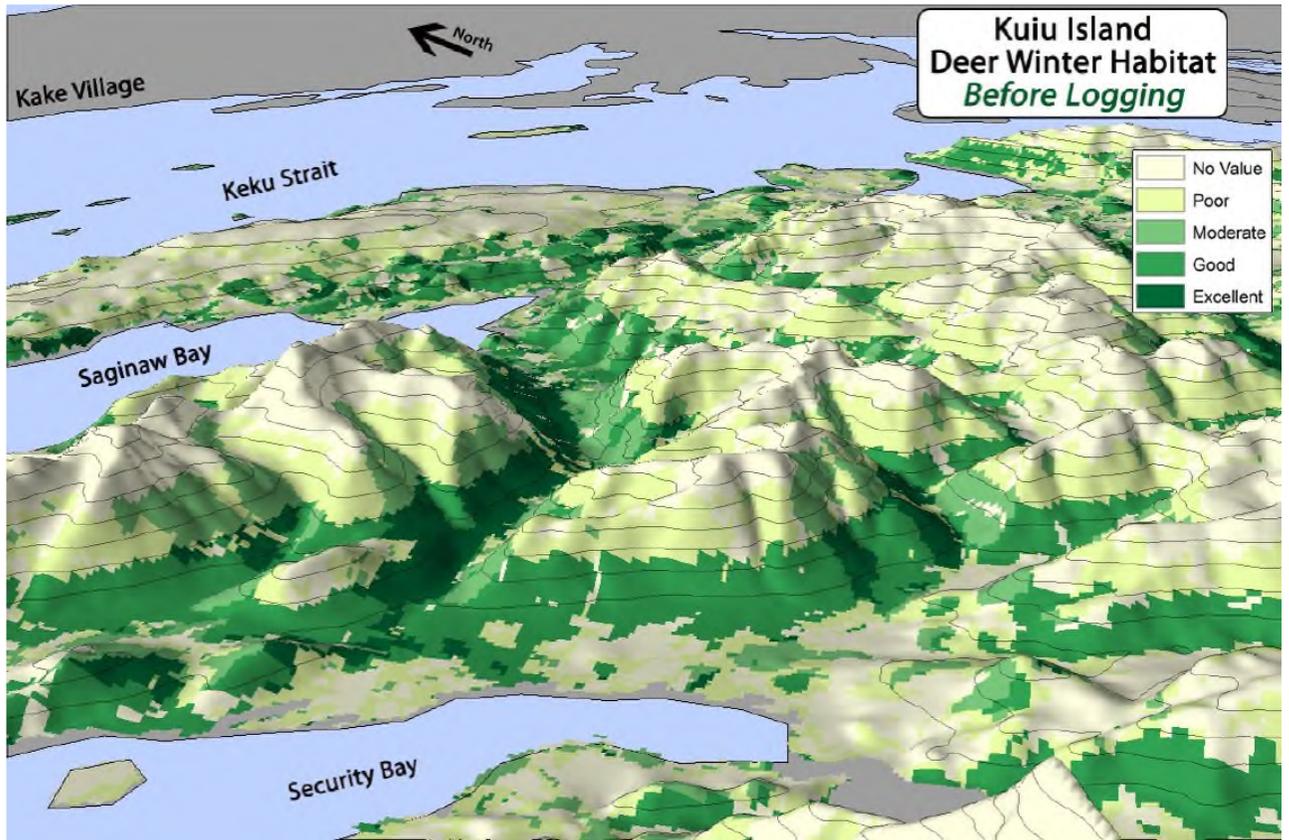
<sup>126</sup> *Id.* at 3-149.

<sup>127</sup> *Id.* at 3-141.

<sup>128</sup> Exh. 7 (Alaska Board of Game 2010), Exh. 8 (Kuiu Project Subsistence testimony 2007); PR 832\_0607 (pellet density tables).

<sup>129</sup> PR 832\_0602 at 9.

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:



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 with this DEIS as well, and particularly for the Central Tongass Project given the condition of project area deer populations.

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.<sup>1</sup> 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.<sup>2</sup> 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).<sup>3</sup> This is problematic because (a) many deer do not have access to south-facing habitat (if they inhabit 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.<sup>4</sup> 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.<sup>5</sup> 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 DEIS does provide clearly shows major rather than moderate effects:

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, particularly under Alternative 2.<sup>130</sup>

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).<sup>131</sup> 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.<sup>132</sup> The DEIS acknowledges that recent period of severe winters (2006/2007) caused deer to concentrate on winter range, followed by high mortality due to malnutrition and predation.<sup>133</sup> ADF&G has cautioned that population recovery has been slower than anticipated – likely because of predation from bears and wolves.<sup>134</sup> Even worse, there are “unfavorable long-term changes in habitat conditions resulting from decades of clearcut logging.”<sup>135</sup> 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.<sup>136</sup>

Despite the risk of a “substantial die-off” and other factors impeding recovery, the DEIS never undertakes the requisite site-specific analysis needed to assess these risks. There are no unit cards identifying deer winter habitat within specific cutting

---

<sup>130</sup> DEIS at 3-76.

<sup>131</sup> PR 832\_0601 (Lowell 2015).

<sup>132</sup> PR 832\_0602 (Lowell 2015).

<sup>133</sup> DEIS at 3-81.

<sup>134</sup> PR 832-0602 (Lowell 2015).

<sup>135</sup> *Id.*

<sup>136</sup> DEIS at 3-247.

units, or potentially critical features such as large-tree old-growth forests on slopes facing any direction.

## **2. The DEIS fails to undertake a site-specific analysis of subsistence uses, violating ANILCA**

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.”<sup>137</sup> 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.<sup>138</sup>

The Forest Service must take reasonable steps to ensure not just viable, but harvestable levels of wildlife populations, in particular - deer. The DEIS only looks at subsistence uses of deer broadly, identifying total numbers of deer harvested by Petersburg and Wrangell residents without any reference to harvest trends or where subsistence harvests occur in relation to proposed Timber Analysis Areas.<sup>139</sup> The lack of site specific information in the DEIS violates Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA).

In enacting 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.”<sup>140</sup> The Forest Service must also “[p]rovide for the continuation of the opportunity for subsistence uses by rural Alaskan residents.”<sup>141</sup> Section 810 requires the Forest

---

<sup>137</sup> 16 U.S.C. § 3112(1).

<sup>138</sup> Senate Committee on Energy and Natural Resources, Alaska National Interest Lands Conservation Act, S.Rep. No. 413, 96<sup>th</sup> Cong., 1<sup>st</sup> Sess. 233 (1979), reprinted in 1979 U.S.C.C.A.N. 5070, 5177.

<sup>139</sup> DEIS at 3-346.

<sup>140</sup> 16 U.S.C. § 3112(1).

<sup>141</sup> Forest Plan at 4-65.

Service to evaluate the effects of, and alternatives to, any use of federal public land that impacts subsistence uses and needs. Site-specific information is essential to make meaningful findings under Section 810.

The DEIS identifies a “significant possibility of a significant restriction for the subsistence use of deer” primarily because clearcutting deep snow habitat in areas will alter the abundance and distribution of deer.<sup>142</sup> ANILCA requires that wildlife resources in customary and traditional use areas must be available in close proximity to rural residents. The effects component of the Section 810 evaluation needed to consider long-term trends in subsistence resource distribution, competition and access in terms of the significance of specific Timber Analysis Areas to a specific community or in many cases, multiple communities.

As pointed out in the 2008 TLMP FEIS, “areas of concentrated harvest would have higher effects on subsistence.”<sup>143</sup> The DEIS acknowledged that central Southeast Alaska residents use portions of the project area for subsistence but failed to identify the most important deer hunting areas for Kake, Kupreanof, Meyers Chuck, Petersburg and Wrangell residents or factors affecting the availability of subsistence resources.<sup>144</sup> The DEIS recognizes deer have special significance for subsistence uses, but then does no more than simply catalog total deer harvests in the communities and refer back to the analysis of deer in other sections.<sup>145</sup> Community subsistence harvests are location-specific and tied to geography, history and culture. It is impossible to evaluate logging impacts on community subsistence uses without knowing where the logging will occur, or where forested areas are essential to subsistence harvests.

The Section 810 discussion in the DEIS insists it is not possible to avoid clearcutting forests used by one community for subsistence because reducing effects in one area means increasing effects to others.<sup>146</sup> But this project does just that – it further concentrates the Tongass National Forest’s timber sales program in central southeast Alaska community subsistence areas. The DEIS neither examines specific areas of high subsistence use in the Timber Analysis Areas nor describe habitat conditions for subsistence resources in Timber Analysis Areas.

For example, the DEIS fails to identify the most important areas for deer hunting in the project area. The most current data in the record indicates that total harvests from all Wildlife Analysis Areas in the project area from 2009 – 2013 was 549 deer.<sup>147</sup> But between 1995 and 2005, central southeast Alaska residents harvested on average 551 deer from three Wildlife Analysis Areas alone - Mitkof

---

<sup>142</sup> DEIS at 3-349.

<sup>143</sup> TLMP FEIS at 3-433.

<sup>144</sup> DEIS at 3-333.

<sup>145</sup> *See, e.g.* DEIS at 3-346-348.

<sup>146</sup> DEIS at 3-351.

<sup>147</sup> PR 0832\_0602.

Island, Zarembo Island and southern Lindenberg Peninsula.<sup>148</sup> Indeed, Zarembo Island was a top producer with the highest hunting success rate, with 1,249 hunting days yielding 350 deer per year.<sup>149</sup> Lindenberg Peninsula was the only other area with a comparable hunting success rate.<sup>150</sup> Wrangell Island was the only other WAA with significant deer harvests and effort.<sup>151</sup>

Further illustration of the agency's concentration of adverse impacts to central southeast Alaska communities is that there are roughly 196 wildlife analysis areas across the Tongass, but project area WAAs such as WAA 1903 (Wrangell Island), WAA 1905 (Zarembo Island), WAA 2007 (Mitkof Island) and WAA 5138 (Lindenberg Peninsula) are by far the most impacted areas in terms of winter range already gone or slated for removal through Forest Plan implementation of timber take activities through this project.<sup>152</sup> Most of these WAAs have deer winter range planned or past timber take at four-times the forest-wide average.<sup>153</sup> There are similarly disproportionate changes in deer habitat capability in other project area WAAs. There appear to be very few, if any, wildlife analysis areas outside of central southeast Alaska and Prince of Wales Island that produce subsistence harvests of sixty or more deer that will receive similar habitat reductions except where there are significant amounts of private land.<sup>154</sup>

The acts of private landowners also bear on the need for site-specific analysis. For example, what about Wildlife Analysis Area 614 (Meyers Chuck)? Over the past decade, deer habitat capability has likely declined considerably (to zero!) as raw log export companies have altered locations on Cleveland Peninsula formerly used by residents of that community for subsistence:<sup>155</sup>



---

<sup>148</sup> 2008 TLMP FEIS at 3-271- 3-277.

<sup>149</sup> *Id.*

<sup>150</sup> *Id.*

<sup>151</sup> *Id.*

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> *Id.*

<sup>155</sup> Credit: Joe Sebastian.



The Section 810 analysis in the DEIS ignores this site-specific information. Where will hunters from Meyers Chuck go now to find deer? During previous population declines, central southeast Alaska hunter effort shifted to areas that are more difficult and less safe to access – Admiralty Island and the Petersburg mainland.<sup>156</sup> Consequently, the Section 810 analysis needed to but did not consider available alternative areas for adequate access to subsistence deer hunting opportunities. One of our most significant concerns with this project is that it increases the likelihood that hunters may face the same dilemma they faced during the last period of deer population declines – incur the expense, risk and difficulty of travel to distant hunting grounds or simply forego deer hunting altogether.

Detailed, site-specific analysis of access was critical because the specific Timber Analysis Areas contain the closest and the most easily accessible deer hunting areas for central southeast Alaska residents that offer reasonable opportunities for hunter success. Most community deer harvests occur within 30 miles of the community.<sup>157</sup> During times of deer population declines, some hunters travel to other areas.<sup>158</sup> But surveys have shown that community hunting effort and community deer harvests decline when hunters must travel greater distances.<sup>159</sup>

The DEIS declined to evaluate opportunities in other nearby subsistence hunting areas. It did not disclose that there are restrictive seasons and bag limits on Mitkof Island. It did not consider factors that affect hunter success in other nearby areas, such as the difficulties with hunting the mainland areas such as GMU 1B.<sup>160</sup>

---

<sup>156</sup> Alaska Department of Fish and Game, 1992. Subsistence Resource Use Patterns in Southeast Alaska: Summaries of 15 Communities. Alaska Department of Fish and Game Division of Subsistence, Juneau, Alaska: June 1992. The Petersburg Ranger District should have this document on file from previous projects. Defenders requests that you add it to this project record.

<sup>157</sup> Doerr, J. and Sigman, M., 1986. Human Use of Pacific Herring, Shellfish, and Selected Wildlife Species in Southeast Alaska With an Overview of Access for Noncommercial Harvests of Fish and Wildlife. Alaska Department of Fish and Game, Division of Habitat, Juneau, Alaska: June 1986. The Petersburg Ranger District should have this document on file from previous projects. Defenders requests that you add it to this project record.

<sup>158</sup> *Id.*

<sup>159</sup> *Id.*

<sup>160</sup> Alaska Department of Fish and Game, 2007. Sitka Black-tailed Deer Harvest Report, Southeast Alaska, 2007. Alaska Department of Fish and Game, Division of Wildlife Conservation. Juneau, AK: 2007.

It did not consider the historical and ongoing deer deficit on Kuiu Island.<sup>161</sup> This was a significant issue because during a previous period of deer population declines, levels of hunter participation declined by 12% and hunter success declined by more than 50%.<sup>162</sup> Based on current harvest statistics, this same scenario is likely occurring now. But the DEIS arbitrarily failed to investigate the issue with the site-specific analysis required by NEPA.

### **B. Impacts to Alexander Archipelago Wolves**

Our scoping comments identified significant concerns about the impacts of continued intensive logging and road construction in GMU 3 on wolves. The combination of lower deer populations and heavily roaded areas in close proximity to population centers can create scenarios incentivizing and facilitating unsustainable harvests of wolves through pack depletion. The DEIS is deficient in considering impacts to wolves in a mere three pages which only briefly mention the increased risks the project 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.<sup>163</sup> The DEIS identifies a potential to directly and indirectly affect den sites, increased competition between humans and wolves and deer, potential prey depletion, resulting in an effects determination of “moderate” impacts to wolves.<sup>164</sup>

Again the absence of site-specific analysis is a significant flaw. A more reasoned analysis may reveal “major” effects due to increased risks of unsustainable harvest, direct effects to dens and prey depletion.

---

<sup>161</sup> 2008 TLMP FEIS at 3-271-277.

<sup>162</sup> Doerr, J. and Sigman, M., 1986.

<sup>163</sup> DEIS at 3-137-140.

<sup>164</sup> *Id.* at 3-105; 3-139.



165

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.<sup>166</sup> Most of the analyzed WAAs already fail to meet these criteria, and the DEIS shows that only two of the analyzed WAAs would have long-term deer densities exceeding the Forest Plan standard – both on deer-depleted Kuiu Island.<sup>167</sup> Road densities in all but two of the analyzed WAAs would exceed the standard, with heavily hunted Timber Analysis Areas such as Mitkof, Wrangell and Zarembo Islands realizing road densities of 1.38, 1.26 and 1.98 miles per square mile, respectively.<sup>168</sup>

Wolf expert Dr. Dave Person's statement regarding the Big Thorne Project identified GMU 3, including Wrangell Island, as an area of significant concern for AA wolves:

Other areas of Southeast Alaska where wolves historically were abundant have conditions similar to the Prince of Wales Archipelago. Extensive logging and road construction have similarly changed conditions for deer

---

<sup>165</sup> Source: Person & Larson 2013. Developing a method to estimate abundance of wolves.

<sup>166</sup> Forest Plan at 4-91.

<sup>167</sup> DEIS at 3-143.

<sup>168</sup> *Id.* at 3-141.

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. (Person et al. 1996). Decay 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.<sup>169</sup>

The DEIS failed to consider and disclose 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 in specific Timber Analysis Areas. 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.<sup>170</sup> The agency's GMU 3 AA wolf population estimates are "crude" and rely on Dr. Person's Prince of Wales Island research and reflect average territory and pack size from similar habitat.<sup>171</sup> 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.<sup>172</sup> 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:

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.<sup>173</sup>

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."<sup>174</sup> For this reason, it is

---

<sup>169</sup> Wrangell Island Project PR #634\_0134 (Person 2013 Dec'1 at ¶13e).

<sup>170</sup> ADF&G 2012, IM Feasibility Assessment, Unit 3. All documents cited in this discussion about impact to wolves were submitted to the Wrangell Ranger District during the comment period for the recent Wrangell Island Project and should be available for agency review in that district's files.

<sup>171</sup> *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.

<sup>172</sup> *Id.*

<sup>173</sup> ADF&G, Division of Wildlife Conservation. 2012. Status of Wolves in Southeast Alaska. October 2012.

<sup>174</sup> Wrangell Island Project PR#634\_0150 (Declaration of Dr. Dave Person ¶23).

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.

In particular, there is significant amount of recent scientific research done on Prince of Wales Island readily available to inform the analysis of impacts to wolves that may arise from this project. The DEIS oversimplifies a very simple issue by merely quantifying deer densities and road densities. A key omission is the failure to identify Timber Analysis 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 of the Timber Analysis Areas proposed for this project 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.<sup>175</sup> The Central Tongass Project will likely incentivize higher wolf take levels by increasing competition between humans for smaller numbers of deer.<sup>176</sup>

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.

### **C. Comments on analysis of impacts to Queen Charlotte Goshawks**

Again, the absence of site-specific analysis (literally, nest-site-specific analysis) is a serious flaw with the DEIS. As the DEIS notes, there only 44 probably nesting territories in the project area, and yet the Forest Service refuses to analyze the loss of specific habitat features in those areas. It is a simple task: will the Central Tongass Project implement clearcut logging 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.

---

<sup>175</sup> PR 832\_0814 (Person & Logan 2012).

<sup>176</sup> Prince of Wales Landscape Level Analysis PR 833\_0820 (Person, D. & T. Brinkman. 2013. Succession Debt and Roads).

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 Landscape Level Annihilation (POWLLA). Many of the few remaining active nest sites are in central southeast Alaska old-growth forest stands and at risk due to the additional 13,500 acres of logging proposed for this project.<sup>177</sup>

The DEIS provides a one page generalized discussion about goshawk ecology that includes percentages of remaining old-growth across the entire project area, and two pages of effects determinations.<sup>178</sup> It provides no site-specific information about prey availability and other features such as alternative nest sites for project area Queen Charlotte Goshawks. 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 Forest Service's recent approach of using impacts to high-probability nesting habitat as the primary metric for impact assessment.<sup>179</sup> 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. For example, the Forest Service has in the past evaluated timber projects by considering impacts to foraging habitat and disruptions within a 6,000 acre foraging area surrounding each nest. The Queen Charlotte goshawk relies primarily on forest-dwelling prey, and adequate amounts of suitable forest cover appear to be critical to goshawk productivity.<sup>180</sup>

---

<sup>177</sup> 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 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

<sup>178</sup> DEIS at 3-133.

<sup>179</sup> See *Native Ecosystems Council v. U.S. Forest Serv.* 428 F.3d 1233, 1250 (9<sup>th</sup> 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'n v. NMFS*, 265 F.3d 1028, 1037-38 (9<sup>th</sup> Cir. 2001).

<sup>180</sup> Doyle, F., and T. Mahon. 2003. Do goshawk management strategies have to be tailored to specific ecosystems? Lessons we can learn from studying goshawks in different ecosystems (abstract). Page 39 in Proceedings of Annual Meeting, Raptor Research Foundation, Anchorage, Alaska.

## **1. The DEIS should include population inventory and site-specific analysis of known central southeast Alaska nest sites**

There are a number of historical known goshawk nests in central southeast Alaska. The Forest Service needs to survey these sites and discuss and disclose potential nest and breeding failures. Central Alexander Archipelago Queen Charlotte Goshawks – potentially among the most important remaining populations - are particularly at risk. Individual impacts, such as impact to individual QCGs, can have more significant impacts in relation to other impacts on overall species viability – in the Mitkof/Kupreanof Island biogeographic province, and 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.<sup>181</sup>

The Ninth Circuit’s explanation of sediment impacts to salmon bears directly on how the DEIS should have analyzed risks to individual Queen Charlotte Goshawks in the project area. The cumulative effects analysis needed to explain how the Central Tongass Project, in combination with the Prince of Wales Landscape Level Annihilation, Big Thorne Project, Tonka Project, Wrangell Project, and 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.

Indeed, site-specific comments to the Petersburg Ranger District from the Alaska Department of Fish and Game identified the Overlook project on Mitkof Island as presenting significant cumulative risks, including to forest-wide populations:

The EA notes that there is a goshawk nest approximately 1.5 miles from the project area. Radiotelemetry data from northern goshawks in Southeast Alaska indicates that adult goshawks have large home ranges, forage up to several miles from the nest, and select for high volume old growth forest. Furthermore, goshawks are known to use alternate nest stands up to two miles apart. Therefore, it is entirely possible that timber harvest within the Overlook project area will negatively impact important goshawk foraging and nesting habitat. The EA states that “No negative cumulative effects to goshawk population viability are expected as a result of this project.” However, when proposed timber harvest in the Overlook area is considered in conjunction with past, present and future harvest activities, the ability of the project area, Mitkof

---

<sup>181</sup> *Klamath-Siskiyou Wildlands Center v. BLM*, 387 F.3d 989, 994 (9<sup>th</sup> Cir. 2004).

Island, and the Tongass as a whole to support goshawks will continue to decline.

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 project area VCUs fit within these risk thresholds? The DEIS fails to address and answer these questions. Our review of Appendix N to the 1997 Forest Plan showed that 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 Mitkof/Kupreanof Island province.

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 known 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 pinchpoint) 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. The DEIS fails to address how these thresholds relate to the project – both at the site-specific level and in terms of species viability across the forest.

## **2. The DEIS should address risks to Queen Charlotte Goshawks**

The Central Tongass Project likely will affect the fitness and breeding potential of project area goshawks due to reduced foraging capacity. The Fish and Wildlife Service’s 2007 status review explained that QCGs 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.”

Further, a 2005 study of Queen Charlotte Goshawks on similarly degraded island ecosystem habitat in British Columbia concluded that they experience more breeding failures than other northern goshawks, and raised the concern that “at the present rate of productivity, insufficient young are possibly being produced to allow the population to be maintained.” The study identifies a number of risks that are highly relevant to the analysis in the DEIS, including risks associated with low productivity, specific flaws with the use of the Forest Service’s high probability foraging habitat methodology and uncertainties about using different timber management prescriptions to mitigate population effects:

(1) QCGs produce few young fledglings per breeding attempt relative to other northern goshawks, and were possibly not producing sufficient young in the study

area (Haida Gwaii), raising the question of whether small insulated island populations with low breeding rates can maintain a viable population;

(2) successful breeding may require **greater than 60% productive old growth**;

(3) *because of an absence of nest activities outside of known nests, it is unreasonable to rely on measurements of highly productive habitat as goshawks are not being detected in those areas*;

(4) raising uncertainties about the effectiveness of a variable retention approach.

In other words, the DEIS ignored the availability of foraging habitat and other critical features in the vicinity of historical nest sites and instead relied on broad scale habitat measurements in spite of a large body of scientific research identifying the ineffectiveness of the Forest Service's approach.

### **3. The DEIS should address scientific critiques of the TLMP Conservation Strategy pertaining to Queen Charlotte Goshawks**

The DEIS failed to disclose or review responsible scientific opinion raising serious questions about whether current TLMP standards and guidelines and the conservation strategy effectively sustain viability. For example, federal and state wildlife agencies believe that measures implemented in the 2008 TLMP Amendment will reduce conservation standards and necessitate a reconsideration of the 2007 status review.<sup>182</sup> A subsequent study by one of the region's leading Queen Charlotte Goshawk experts, Dr. Winston Smith, identified uncertainties pertaining to whether TLMP conservation measures provide the habitat features necessary to sustain well-distributed goshawk populations across the Alexander Archipelago.

Dr. Smith's analysis indicated that risks to goshawks under the TLMP are likely even greater than anticipated under the 1996 risk assessments. Specifically, the 1996 risk assessment assumed that the TLMP conservation strategy, particularly the reserve system, would in part mitigate habitat loss from excessive timber harvest. However, Dr. Smith's study indicates that contributions from reserves and other conservation elements (buffers) "might not mitigate the cumulative habitat loss in intensively managed landscapes." Dr. Smith added that there is "evidence on nearby islands that extensive loss and fragmentation of habitat from clearcut logging contributed to population declines of QCGs." His analysis explicitly stated that TLMP standards and guidelines "are unlikely to meet breeding-season habitat objectives established for goshawk populations" in other areas. Specifically, Smith's study showed that:

- TLMP conservation measures contribute about half the secure habitat recommended for post-fledgling areas of breeding pairs in other portions of the northern goshawk's range

---

<sup>182</sup> 2008 TLMP FEIS, Appx. H at HA 14, 17, 39.

- Guidelines for northern goshawk populations in other areas may underestimate habitat needed by goshawks due to limitations in prey resources
- Breeding pairs in southeast Alaska “likely rely almost entirely on productive old-growth forest as foraging and nesting habitat as few mammal species inhabit low-volume or managed forests and the structure of second growth stands renders prey unavailable to foraging QCGs. [(Exh. 45 at 6-7)].

Another recent study, Sonsthagen et al 2012, also is relevant to the analysis of cumulative effects and site-specific impacts. Sonsthagen et al indicate that a metapopulation framework actually suggests a heightened need for specific individual nest site protections because without those, the individuals would blink out, resulting in the loss of source populations and over time, the metapopulation would cease to exist.

In sum, Dr. Smith’s study in particular identified significant uncertainties and adverse risks to QCGs associated with the inadequacy of the TLMP conservation strategy. The DEIS ignored Smith’s analysis of the conservation strategy, and failed to assess the implications of Sonsthagen’s discussion of metapopulations.

#### ***4. The DEIS failed to consider larger buffers and other measures to protect known nesting and foraging habitat***

TLMP standards provide that “[s]pecial consideration should be given to the possible adverse impacts on habitat of sensitive, threatened and endangered species.” We request consideration of mitigation/alternative nest management measures as required by the TLMP, such as increased buffers for nests and increased forest structure retention requirements in the vicinity of known goshawk nests. The DEIS needs to include a site-specific habitat quality analysis that takes into account all available information on differential utilization of various forest types and structures.

During the 2008 TLMP Amendment process, ADF & G, the FWS, and the Forest Service’s Pacific Northwest Research Station each recommended, at a minimum, a 500-acre buffer as needed to minimize risks to QCGs. The TLMP required the Responsible Official to “[c]onsider surrounding landscapes when managing for goshawk nest sites” and provide for alternative nest management measures as appropriate. Proposed timber analysis areas in the project area have high levels of past logging and fragmentation, exemplifying the type of landscape that requires alternative nest management measures in order to adequately implement the Forest Plan guideline.

#### ***5. Conclusion***

In sum, there are significant uncertainties about immediate and long term risks to central southeast Alaska Queen Charlotte Goshawks, and consequently, the viability of the species throughout southeast Alaska. The DEIS arbitrarily concludes that the Central Tongass Project will not cause a loss of viability – even though the Forest Service has no idea whether or not remaining goshawks in the project area persist and refuses to disclose whether the project may or may not place additional

clearcuts in the vicinity of historical nest sites. A revised DEIS must consider the population status and particular vulnerabilities of project area populations, and address uncertainties about the viability of the population, particularly in response to further logging in the vicinity of known nests.

***E. Comments on Project Impacts to marten and other wildlife***

The DEIS fails to provide adequate site-specific analysis of project impacts to marten. It notes that overall, as with other wildlife species, most project Timber Analysis Areas would fail to provide sufficient habitat to support marten populations, but then it focuses on just one area, even though the project would have major effect on the species' habitat throughout the project area.<sup>183</sup> During the Mitkof Island Project NEPA process we provided the Forest Service with 2013 ADF & G presentations that recommend restrictions on trapping effort in portions of GMU 3 in large part because of habitat loss and mortality risks caused by the Forest Service's timber program and the associated transportation system.

For example, in 2013, in response to the Tonka Timber Sale, ADF & G proposed prohibiting the use of motorized vehicles on the Lindenberg Peninsula road system. The agency cited a "[h]igh potential for overharvest" due to continued reductions in marten habitat carrying capacity, increased road density, little remaining refugia, and the demonstrated slow recovery of martens on Kuiu Island.<sup>184</sup> The Mitkof Island landscape condition is at best similar and likely worse than Lindenberg Peninsula. By 2009, marten trapping on Kuiu Island was closed due to chronic low densities, low survival, low recruitment, and low prey abundance. Given the potential for major impacts and for the repetition of the north Kuiu Island wildlife crisis throughout the project area, the Forest Service needed to investigate the site-specific status of marten populations and site-specific habitat conditions in each Timber Analysis Area.

There has long been a similar significant concern about marten mortality on Wrangell Island due primarily to the limited amount of roadless refugia on the island and the large proportion of land area accessible within 0.9 miles of existing roads. We thus request that the Forest Service undertake systematic surveys given the potential for extinction of marten, or at least excessive mortality, on Wrangell Island.

The DEIS failed to provide information on current trapping effort or the existing status of marten populations and instead relied on overall habitat measurements to assess impacts. We request that further analysis address the following concerns:

1. Road density risks: The DEIS needs to identify relevant thresholds or to what extent road density increases would result in the entire population being vulnerable to overharvest or the potential for local extirpations.

---

<sup>183</sup> DEIS at 3-92.

<sup>184</sup> Exh. 12 (ADF&G)

2. Further NEPA analysis should include use of the habitat capability model: The TLMP specifically recommends using a habitat capability model for MIS in order to systematically assess project impacts. The need for an interagency model is particularly critical in light of the species low tolerance for habitat loss.
3. Consider forest retention prescriptions for marten: The Forest Service should consider additional retention requirements in clearcut units. When planned logging will threaten viability, partial harvest aimed at maintaining productivity of small mammals, retaining habitat features for dens and nest sites, leaving substantial amounts of vertical structure are key features that must be considered in further NEPA analysis.
4. Trapping Refugia and Prey Availability: The DEIS should include some additional discussion of trapping refugia and prey availability. The analysis would be improved by reviewing the recommendations of expert scientists from the 2006 Conservation Strategy Review Workshop and considering responsive measures, such as matrix management and enhanced corridors between OGRs.
5. Review updated scientific literature on logging impacts to marten: The DEIS should review two recent studies we submitted to the Wrangell Ranger District during the Wrangell Island Project NEPA process – one indicates how marten are one of the most sensitive species to environmental changes, including climate change, and bears on project impacts, and the second address how even lighter touch logging prescriptions can adversely affect marten movement patterns and ecological needs, and indicates that partial harvest prescriptions thus can also have adverse impacts and should not be relied on to mitigate project impacts.

The DEIS provided broad scale analysis for only a small number of species affected by this project. It addresses project impacts to black bears with a few sentences included in a table – even though there is long history of site-specific concerns with the impacts of logging on bears.<sup>185</sup> The DEIS discusses only one endemic species on Wrangell Island.<sup>186</sup> The viability of small mammal populations is critical to other wildlife species in the project area such as marten and goshawks.

***F. The DEIS should evaluate deferring second growth logging to meet long-term wildlife viability needs***

The DEIS entirely ignores potential impacts of second-growth logging on wildlife. Defenders requests that the Forest Service reconsider its aggressive approach to second growth logging on the Petersburg and Wrangell Ranger Districts and assess the value of allowing those forests to recover to the point of attaining some old-growth habitat features of value for wildlife. Uncut or lightly treated

---

<sup>185</sup> Exh. 10, 11 (Lowell & Peacock comments on Kuiu Island timber sales).

<sup>186</sup> DEIS at 3-135.

second-growth forests can have some value for wildlife despite the limited availability of biological characteristics associated with old-growth forests. In particular, wildlife will utilize second-growth forests in areas where there is a deficit of preferred habitats. Maintaining these recovering forests would have multiple benefits to wildlife by reducing edge effects, extending the size of forested acres, enhancing interior habitat, reducing blowdown risks, reducing disturbances of nesting and breeding areas and providing refugia.

The Central Tongass Project would authorize the removal of over four thousand acres of recovering forest that would otherwise become old-growth habitat. Plans for massive clearcutting of maturing second growth forest fail to meet the long-term wildlife viability need to allow for a mix of forested habitats. The delay of the forest recovery process, displacement caused by logging activities and impairment to travel corridors will have significant long-term adverse effects that the DEIS must disclose and evaluate.

Many older second-growth stands in biogeographic provinces with high levels of past old-growth logging would recover fully into the understory re-initiation stage over the next 40 to 50 years. However, this project would delay this recovery process so that clearcut second-growth forests would require another half century to reach the same inhospitable stand conditions present today, and at least a century to recover into understory re-initiation structure. The DEIS needs to disclose and consider whether this planned plantation rotation of 100 to 110 years old (or less) would prevent the development of quality wildlife habitat and thus increase long-term species extirpation risks.

The Forest Service refused to convene a scientific panel or consult scientific experts regarding the short rotation logging plan proposed by the Tongass Advisory Committee – a group consisting primarily of engaged timber industry representatives, timber industry collaborator/”conservationists,” and a few bystanders. It is not surprising that the Tongass Advisory Committee’s eagerness to clearcut massive swaths of immature, recovering forest ignores the scientifically established need to provide long-term understory forage production and habitat quality for wildlife.

**1. *The DEIS needs to discuss the need for maturing second-growth forested habitat for deer and wolves***

The Forest Service proposes to remove as much as 80 MMBF of immature trees – both for commercial timber and because of the Forest Service’s belief that some partial cuts can yield meaningful benefits for wildlife. However, given the deficit of old-growth habitat, particularly deer winter range, Defenders questions the Forest Service’s reliance on providing wildlife habitat throughout the landscape in thinned second-growth stands. Thinning treatments may provide forage for a short period of time, but at the same time there is also a need to reduce the scale of impacts to recovering second-growth forest so as to allow for succession to old-growth conditions that provide long term habitat for deer. Defenders submits that the DEIS should evaluate longer rotations with second growth treatments limited to smaller openings of an acre or less.

One of the most significant adverse impacts to deer pertains to the need for varying habitat needs within seasons or even over periods of years, particularly for

snow interception.<sup>187</sup> The Forest Service’s myopic focus on forage in clearcuts arbitrarily fails to address key winter habitat needs:

For ungulates at temperate and higher latitudes, winter is often the limiting season for survival, when cold temperatures and snowfall restrict the availability of forage and increase costs of movement. In addition, vulnerability of ungulates to predators can be higher in snow-covered landscapes because of reduced nutritional condition and increased cost of movements for prey relative to predators. Subsequently, habitat selection of ungulates in winter can be strongly shaped by the landscapes of energetic costs and risk of death. As snow depth increases, values of habitat to wildlife may be completely reversed from low-snow conditions. As habitat types with abundant forage but little canopy cover to intercept snow become unusable, habitats with adequate forage and good canopy cover become preferred.<sup>188</sup>

There is little the Forest Service can do to address the need for forest cover to reduce snow accumulation other than allow juvenile trees to mature – indeed, silvicultural treatments will worsen the problem.<sup>189</sup> Deer do utilize older second-growth as snow depths increase.<sup>190</sup> As Person and Brinkman, explain, even if climate change results in milder winters, precipitation and extreme storm probabilities may increase, increasing risks of deep snow events that can substantially reduce deer numbers to low levels for extended periods of time.<sup>191</sup> Because central southeast Alaska deer are susceptible to both wolves and severe winter die-offs, the Forest Service’s failure to plan for long-term winter range needs presents serious species-specific risks that the DEIS must disclose and analyze.<sup>192</sup>

## **2. Maturing second-growth forests provide habitat for Queen Charlotte goshawks**

The record is clear, for example, that new clearcuts do not provide forage for all wildlife species – fresh clearcuts will not provide foraging opportunities for Queen Charlotte goshawks, but the Forest Service’s 1996 Conservation for the species recognizes that stands in the understory initiation phases will provide improved foraging habitat and even nesting trees. The DEIS must consider the additional risks associated with logging recovering second growth forests that the agency was aware

---

<sup>187</sup> The Forest Service can obtain this study from the new Prince of Wales timber project record #PR 833\_0832 at 247 (Gilbert et al 2017).

<sup>188</sup> *Id.* (emphasis added)(internal citations omitted).

<sup>189</sup> The Forest Service can obtain this study from the new Prince of Wales timber project record # 833\_0837 at 47 (Hanley et al 1989).

<sup>190</sup> Gilbert et al 2017.

<sup>191</sup> The Forest Service can obtain this study from the new Prince of Wales timber project record #833\_0820 (Person and Brinkman 2013).

<sup>192</sup> The Forest Service can obtain this study from the new Prince of Wales timber project record # 833\_0836 at 16 (Hanley 1984).

are or soon will be mature enough to provide nesting habitat. There are significant risks of continued and serious wildlife population declines associated with further loss of habitat caused by old-growth logging and future logging of recovering forests.

This project will likely maintain an excess amount of early seral forest (90 – 100 years old), and increase viability risks to QCGs. New clearcut and early seral stage habitats do not provide critical habitat features for Queen Charlotte goshawks. In its 2007 Status Review, the Fish and Wildlife Service stated that “[f]orest management *must* ... emphasize continued existence of *mature* and old forest to ensure preservation of the species.” The status review notes that Forest Service scientists who considered the influence of forest rotations on the long-term viability of the species “generally agreed that older second growth resulting from timber rotations of 200 to 300 years could provide useful habitat, and would reduce risk to goshawks, as compared to 100-year rotations.” The FWS anticipated that habitat quality could improve over the long-term as recovering forests mature – but not under a 100 year rotation as proposed here.

The premature removal of recovering forests at the scale proposed for the Central Tongass Project significantly diverges from the assumptions about rotations the formed a critical part of the conservation strategy. The DEIS needs to analyze habitat loss for QCGs at a finer scale and in areas at-risk of further habitat loss and provide the public with an appropriate level of analysis about the impacts of logging recovering forests.

### **3. The DEIS should disclose uncertainties surrounding the purported benefits of second growth logging “restorative” treatments**

The Forest Service’s plan for logging recovering forests in central southeast Alaska island ecosystems are, at best, highly experimental with regard to potential impacts on forest resources. The Forest Service must consider uncertain risks associated with relying on thinning or similar treatments to mitigate adverse impacts to wildlife given the uncertainty about impacts to wildlife and forest structure and significant uncertainties regarding the effectiveness of the treatments identified by scientific experts.

There are a limited number of peer-reviewed scientific studies regarding the efficacy of second-growth treatments. Those studies review thinning and gap treatments and provide no support for the proposition that ten acre patch clearcuts, or even commercial thinning, would benefit wildlife to the extent suggested in Central Tongass Project scoping materials. The primary silvicultural studies reflect an historical focus on thinning treatments for tree growth and wood product quality rather than wildlife benefits. Indeed, reviews of wildlife based silvicultural treatments in the record consistently describe the Forest Service’s work on wildlife habitat as “experiments” that are mere descriptions of results at one point in time.<sup>193</sup> Thus the agency’s understanding of the long-term consequences of these habitat manipulation experiments “is only in its infancy today.”<sup>194</sup> A recent 2017 study authored by five

---

<sup>193</sup> The Forest Service can obtain this study from the new Prince of Wales timber project record # 833\_0841 (Hanley et al. 2013).

<sup>194</sup> *Id.*

wildlife experts notes that the Forest Service has proposed treating older second growth stands but explains that “[c]urrently, there are no data for deer use of such treatments and their value is purely speculative.”<sup>195</sup>

The 2008 TLMP FEIS acknowledged that “there are many unanswered questions as to how to implement thinning treatments that provide a sustainable source of high value wood products while maintaining biological diversity.”<sup>196</sup> The Forest Service identified considerable experience with pre-commercial thinning as the “only intermediate treatment commonly used on the Tongass.”<sup>197</sup> There was “much less experience with other young-growth management techniques, such as pruning and commercial thinning.”<sup>198</sup> Thus, silvicultural prescriptions for recovering second-growth forests other than pre-commercial thinning were described as “experiments.”<sup>199</sup>

The interagency wolf habitat work group similarly identified the experimental nature of second-growth “logging for wildlife” treatments. The group notes that studies have assessed effects of thinning on understory response, but:

... research on effects of young-age thinning on use and vital rates of deer are more limited. To learn whether young growth treatments are having the desired effect and whether they can be improved, additional monitoring and research to evaluate population response of deer to young growth treatments are needed. The need to treat second growth forest presents an opportunity to experimentally test the effects of treatments on deer and other species. Some of the early efforts to treat young growth should be developed in an experimental framework to evaluate effectiveness of the treatments. Information from monitoring will assist and adaptive management and planning for subsequent treatments, and help avoid inadvertent creation of long-term impacts to deer habitat.”<sup>200</sup>

Further:

In timber lands “more small treatments as opposed to fewer large treatments, spread across larger or contiguous even-aged stands, can improve deer habitat value of the area. Staggering treatments in time (cutting only a small percentage of a large stand each decade, for

---

<sup>195</sup> Gilbert et al 2017.

<sup>196</sup> 2008 TLMP FEIS at 3-330.

<sup>197</sup> *Id.* at 3-329, 3-342.

<sup>198</sup> *Id.*

<sup>199</sup> *Id.* at 330.

<sup>200</sup> The Forest Service can obtain this study from the new Prince of Wales timber project record # 833\_0847 at 10 (Interagency Wolf Habitat Management Program Recommendations for GMU 2 (2017); see also *id.* at 11-12: “the influences of opening shapes and sizes on forage and deer response over time are not well understood”).

example) can reduce fluctuations in deer habitat quality and help stabilize deer numbers.<sup>201</sup>

In a letter to the non-scientists from the Tongass Advisory Committee, deer expert Matt Kirchhoff explained that their rationale for “rehabilitating” recovering forests was “gibberish”:

By clearcutting, in any shape or size in a 70 – 90 year old stand, you are setting back succession to its earliest stage, and perpetuating an even-aged management regime on the land. Yes, it may be somewhat better for wildlife in the short term. But no, it will not advance old-growth conditions, and it will not be beneficial to any resource but timber in the long term.

Kirchhoff also repeatedly questioned whether there was any scientific basis for the TAC’s assumptions that second-growth logging would shorten the time frame needed to attain old growth conditions. In May 2015, a group of actual scientists, including some of the leading experts on southeast Alaska wildlife, wrote a letter to the timber bureaucrats and bystanders on the Tongass Advisory Committee. The scientists disagreed with the assumptions that now form the rationale for the proposed LRMP second-growth components:

- (1) there was very little research or experience in silvicultural treatments for older second-growth stands, and none of the available studies contemplated 10 acre clearcuts;
- (2) there is “no empirical research on secondary succession following clearcutting of young-growth forests in Southeast Alaska, and there is no theoretical reason to assume that it might better for wildlife habitat than clearcutting old-growth forest;
- (3) artificial canopy gaps smaller than one acre may have some value in some applications, but these treatments “are ecologically distinct” from treatments used in timber sales;
- (4) increased use of thinned stands by wildlife is not proven and may be misleading when it does occur
- (5) there is “no empirical data to support the contention that one can log 60 – 80 year young growth in ways that ... achieve desired wildlife benefits.”

Thus, the DEIS must address the risks and significant adverse environmental impacts associated with clearcutting by relying on these second-growth clearcuts as a mitigation measure without any support for the efficacy of the treatments – a result that is unacceptable when a project poses, as here, a long-term risk caused by maintaining project area second-growth acres in the stem exclusion phase.

---

<sup>201</sup> *Id.*

#### **4. The Forest Service should avoid logging in the beach fringe or other protected areas**

Forest plan components authorize logging in old-growth habitat, riparian management areas and the beach fringe.<sup>202</sup> The plan assumes that logging will “improve or maintain fish and wildlife habitat by accelerating old-growth characteristics.”<sup>203</sup> These “improvements” will occur through “patch [clear]cuts” of up to 10 acres removing up to 35% of the forest in the beach and estuary fringe, and commercial thinning (removing up to 33% of the stand volume) in the beach fringe, riparian management areas and old-growth reserves. There is no scientific support for the assumptions used to justify logging in these important conservation areas.

In December 2014, biologists with significant experience in southeast Alaska wildlife research and forest ecology, including involvement in the development and implementation of the conservation strategy, wrote the Forest Service and the TAC in order raise concerns about logging recovering forests in beach fringes, riparian areas and old growth reserves. The experts explained that “[a]cre for acre, beach fringe and riparian are two of the most important habitats for sustaining wildlife populations on the Tongass.” They opposed the changes, particularly in the absence of any review by actual scientists. One of those experts, Matt Kirchhoff, wrote the TAC again the next year, and requested that it take the beach fringe and OGRs “off the table” except for “very limited” research.

Again, in May 2015, a larger group of biologists, including some of the same experts, again addressed the TAC. Their letter reiterated that “[a]llowing commercial logging in [old-growth reserves, beach fringe buffers and riparian management areas] risks the integrity of [the conservation strategy].”<sup>204</sup> Given the significant concern about implementing 10 acre clearcuts in the beach fringe and other protected areas, the Forest Service must address these critiques in its DEIS.

#### **V. Comments on aquatic habitat: the project presents unacceptable and undisclosed risks to fishery resources**

The DEIS identifies a number of stream miles damaged by logging, 452 red pipes blocking an undisclosed number of miles of salmon habitat, and a need for a number of watershed treatments deemed necessary to mitigate losses to salmon production.<sup>205</sup> The analysis looks at 8 of the most damaged watersheds in the project area. It is clear that central southeast Alaska island anadromous salmon systems are at risk for a number of reasons related to federal mismanagement. Landscape scale modifications, such as the system of logging roads, impair and reduce salmon production capacity. This project would further reduce southeast Alaska’s salmon production by building road in fish habitat accompanied by intensive logging of old growth and second growth recovering forests – and do so at a time when the region’s salmon production capacity is at risk due to multiple environmental factors.

---

<sup>202</sup> LRMP at 5-6.

<sup>203</sup> *Id.*

<sup>204</sup> Exh. 26 at 45-46 (TAC 2015).

<sup>205</sup> DEIS at 3-159 – 3-189.

Central southeast Alaska communities are heavily dependent on the salmon fishery.<sup>206</sup> There are over 700 commercial fishing permit owners in the two communities who own 1,516 permits and over 800 vessels home ported in Wrangell and Petersburg.<sup>207</sup> Over a thousand individual fishermen live in the two communities with vessels generating over \$50 million in fishing income that additionally supports over 800 processing jobs generating over \$9 million in wages.<sup>208</sup> Virtually every business in the two communities benefits from fishing dollars and state and local governments receive \$2.4 million in fishery enhancement taxes.<sup>209</sup> This level of economic activity in the region is in stark contrast to the activity generated by federal spending on the timber sale program.

**A. The Forest Service needs to prepare a DEIS that discloses and analyzes risks to fisheries and the fishery economy**

The Forest Service recently produced a DEIS for the Prince of Wales Landscape Level Annihilation that purported to discuss aquatic impacts but shockingly failed to discuss the current status of southeast Alaska fish populations or the relevance of salmon production trends across southeast Alaska. 2016 was a pink salmon fishery disaster for southeast Alaska.<sup>210</sup> A large part of the problem is poor pink production in northern southeast Alaska inside waters, particularly during even year cycles. Fishery managers projected significant restrictions in northern southeast Alaska in 2018. Across southeast Alaska the 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.<sup>211</sup> Importantly, ADF & G seine fishery announcements and test fisheries in 2018 showed that poorest returns were in central southeast Alaska – fishing districts 9 and 10 in Frederick Sound and Chatham Strait.<sup>212</sup>

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:

The cumulative effects of frequent disturbances in the Pacific Northwest have been shown to substantially reduce the quality of

---

<sup>206</sup> <http://www.ufafish.org/wp-content/uploads/2017/01/Comm-Fish-Facts-CY2015-all-012017-v6.2-redux.pdf>

<sup>207</sup> *Id.*

<sup>208</sup> *Id.*

<sup>209</sup> *Id.*

<sup>210</sup> <https://www.kfsk.org/2018/08/29/southeast-pink-salmon-catch-lowest-in-over-four-decades/>

<sup>211</sup> <https://www.kfsk.org/2018/08/29/southeast-pink-salmon-catch-lowest-in-over-four-decades/>

<sup>212</sup> <http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareasoutheast.salmon>

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.*<sup>213</sup>

Given current trends in pink salmon production, this project would present the “double jeopardy” situation described above. It would be reckless to proceed with this project because of likely long-term adverse impacts on the salmon themselves and salmon dependent species such as bears and commercial fishermen. Scientific studies that have found strong negative correlations between logging road density, timber extraction and salmon productivity.<sup>214</sup> Also, the cumulative effects of climate change and habitat degradation increase these risks and warrant disclosure and analysis in a revised DEIS. For example, NMFS has found that logging has:

..degraded coho salmon habitat through 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 .... Several studies have indicate that, in [southern Oregon/northern California], catastrophic erosion and subsequent stream sedimentation

---

<sup>213</sup> U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

<sup>214</sup> The Forest Service can obtain this document from the new Prince of Wales project DEIS planning record #833\_0971 (Halupka et al 2000). We request that the Forest Service obtain, and include in the planning record, Firman, Julie C., et al.. 2011 Landscape models of adult coho salmon density examined at four spatial extents. In: Transactions of the American Fisheries Society, 140:2, 440-455. 2011. Available at: <http://dx.doi.org/10.1080/00028487.2011.567854>.

[from major floods] resulted from areas which had been clearcut or which had roads constructed on unstable soils.<sup>215</sup>

Given these findings and recent declines in fishery outputs, the DEIS needs to evaluate losses associated with lost fishing revenues caused by logging and road construction. Habitat loss has a substantial impact on the commercial fisheries. It is possible to estimate the loss of salmon related economic values caused by logging and related road construction.<sup>216</sup> Canadian researchers in 2003 developed habitat values (which the authors described as conservative estimates) that ranged from \$.026 to \$1.40 per acre of watershed, or \$1,491 to \$7,914 per mile of spawning stream (converted to 2003 U.S. dollars – or roughly \$10,000 per mile of spawning stream today).<sup>217</sup> A 1988 study identified significant economic losses to salmon fisheries caused by logging and road construction on just 21% of the Siuslaw National Forest.<sup>218</sup> The author noted that even “while improved timber harvesting practices of leaving buffer strips and use of better road design have reduced the extent of fisheries losses, there are still substantial ‘unavoidable’ losses associated with timber harvesting.” Another study found that “if habitat improvements resulting from salmon-related logging restrictions generated one additional fish for the recreational fishery per year per acre for the foreseeable future, the asset value of the habitat would be about \$2,800 per acre” or seven times the forgone timber asset value of the land.<sup>219</sup>

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. It is widely recognized that old-growth logging in particular and also second-growth logging contribute to global carbon emissions and that climate change has significant ramifications for forests and biodiversity. We expected that the DEIS would address and disclose real threats to fish, wildlife and vegetation resources that result from scientifically recognized changes in climate. Every section of the DEIS, including timber economics, should consider the impacts of our changing climate. There are also numerous scientifically

---

<sup>215</sup> 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.

<sup>216</sup> 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](http://www.sciencedirect.com/science/article/pii/S0301479703001543).

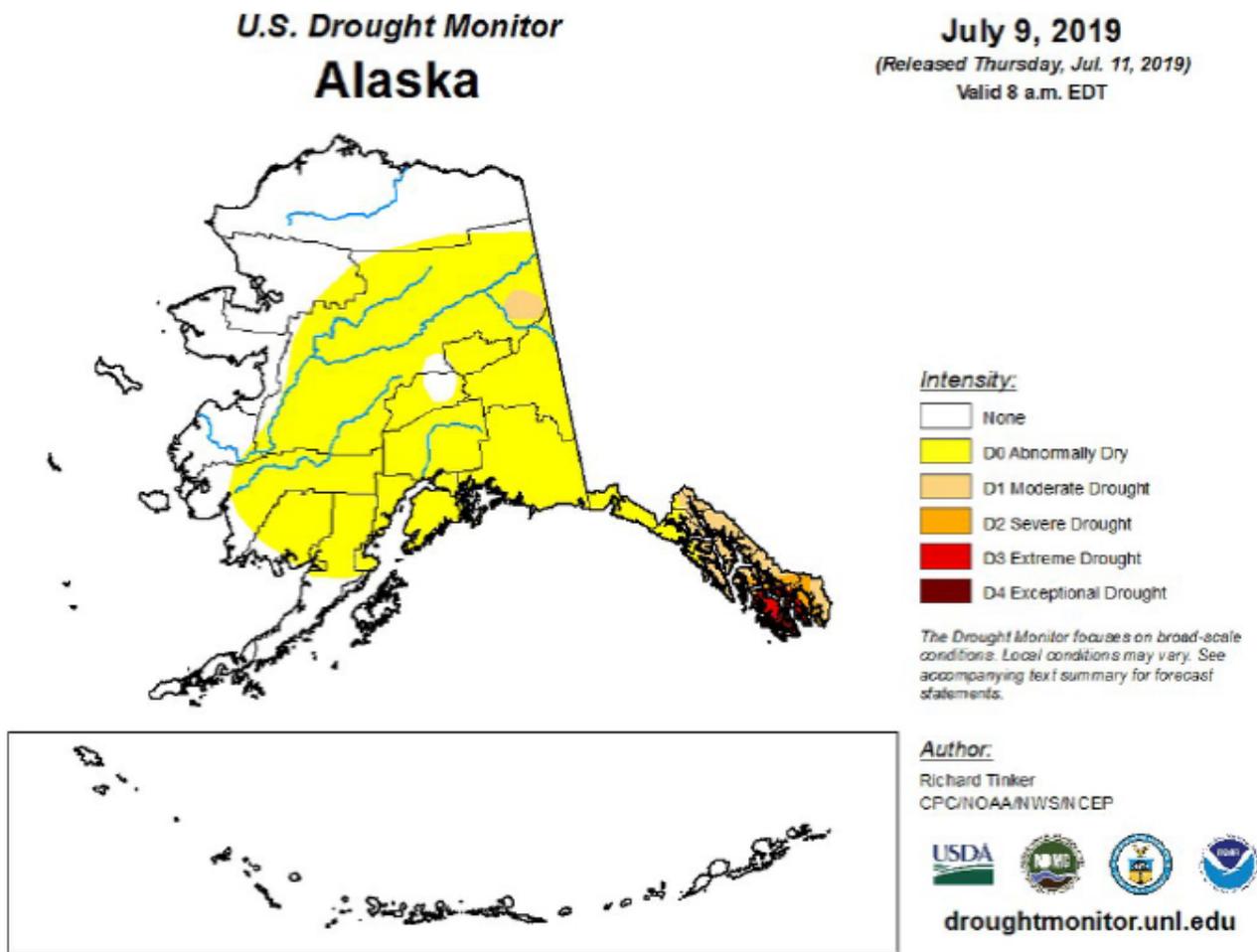
<sup>217</sup> *Id.*

<sup>218</sup> Loomis, J.B. 1988. The bioeconomic effects of timber harvesting on recreational and commercial salmon and steelhead fishing: a case study of the Siuslaw National Forest. In: *Marine Resource Economics*, Vol. 5; 43-60 (1988). This article can be reviewed in its entirety (but not downloaded) at [www.jstor.org/stable/42871964?seq=2#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/42871964?seq=2#page_scan_tab_contents).

<sup>219</sup> ECONorthwest. 1999. Salmon, timber and the economy. Numbers in 1999 dollars.

credible views pertaining to climate change impacts on the Tongass and project prescriptions should add an extra factor of caution due to the projected changes for the Tongass and increased risks to fish and wildlife. We specifically mentioned that the DEIS should review the unusually dry weather in 2018, and consider the cumulative effects of climate induced low streams flows and logging together.

It is impossible to meaningfully comment on climate change impacts to many project area resources because of the unlawful scale of analysis chosen for this project. The DEIS presents ten large timber sales and then list the impacts in a few tables. We selected salmon as the resource in the analysis that exemplifies why the agency needed to consider climate trends with more site-specific, species-specific analysis including basic baseline information that the Forest Service omitted from the DEIS. For example, Southeast Alaska is experiencing a prolonged drought that is severe in portions of the project area.<sup>220</sup>



The latest U.S. Drought Monitor showing extreme drought in the southern Alaska Panhandle. (Courtesy U.S. Drought Monitor website.).

<sup>220</sup> <https://casc.alaska.edu/news/what-does-drought-look-southeast-alaska>

The DEIS, however, only consider impacts to aquatic resources from climate change in terms of increased to peak flows resulting from timber take.<sup>221</sup> How can the Forest Service ignore the current condition of many project area watersheds during the drought? Low flow, or even no flow. In 2018 both pink salmon salmon returns plummeted concurrently with the drought. Fishery managers also believe that decades of logging have reduced habitat capability for coho salmon through alterations in stream channels, culverts that block fish passage on logging roads and effects on smaller streams.<sup>222</sup> Coho are particularly susceptible because they use tributary streams – systems that offer few refuges and are sensitive to disruption.<sup>223</sup> Thus even a relatively healthier resource could be more productive with more and higher quality habitat.

Clearcutting and timber road construction in salmon habitat reduces returns by harming habitat productivity for salmon.<sup>224</sup> These anthropogenic disturbances “substantially” reduce habitat quality, even if there are forested buffers on known anadromous streams.<sup>225</sup> Buffers in southeast Alaska are too narrow and tend to blow down, losing their effectiveness over time.<sup>226</sup> Unbuffered, smaller streams classified as non-anadromous comprise the bulk of the stream mileage in southeast Alaska watersheds.<sup>227</sup>

---

<sup>221</sup> DEIS at 3-186.

<sup>222</sup> Shaul, L., E. Jones, K. Crabtree, T Tydingco, S. McCurdy and B. Elliot. 2008. Coho salmon stock status and escapement goals in Southeast Alaska. Alaska Department of Fish and Game, Special Publication No. 08-20, Anchorage.

<sup>223</sup> Halupka, K, M. Bryant, M. Willson, and F. Everest. 2000. Biological characteristics and population status of anadromous salmon in Southeast. General Technical Report PNW-GTR-468. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR 255 pp.

<sup>224</sup> M.D. Bryant & F.H. Everest. 1998. Management and conditions of watersheds in Southeast Alaska: the persistence of anadromous salmon; (Halupka et al 2000); Firman, Julie C., et al.. 2011 Landscape models of adult coho salmon density examined at four spatial extents. In: Transactions of the American Fisheries Society, 140:2, 440-455. 2011. Available at: <http://dx.doi.org/10.1080/00028487.2011.567854>. U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

<sup>225</sup> U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

<sup>226</sup> U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

<sup>227</sup> U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

Reduction in the value of salmon habitat assets occurs through the removal of natural vegetation, installation of culverts and reductions in habitat complexity.<sup>228</sup> Sedimentation of stream beds caused by clearcutting and timber road construction in particular is a major cause of salmon population declines throughout the species' range.<sup>229</sup> Timber roads increase sediment, degrade water quality, fragment habitat, and increase high temperature regimes.<sup>230</sup> Repairing or removing culverts that block fish habitat can result in rapid increases to salmon populations.<sup>231</sup> It takes over a century for watersheds to recover from intensive logging and road construction, and short timber rotations cycles of less than 100 years prevent recovery: [f]ew refuges remain in a watershed that fish can use during such widespread, intense, and recurrent disturbances.<sup>232</sup>

A major concern of fishery scientists is that high levels of habitat degradation may coincide with periods of low marine productivity, creating a potential for "double jeopardy."<sup>233</sup> Intensively logged watersheds may have some habitat value during periods of high marine productivity, but these degraded habitats will be of lower value during periods of environmental stress.<sup>234</sup> Smolt production will likely be more variable in logged watersheds, and other environmental disturbances such as droughts, flooding or landslides will be more severe in logged watersheds.<sup>235</sup> The double jeopardy scenario is present because this project continue and even accelerate intensive logging of old growth and immature recovering forests at a time when the region's salmon production capacity is at risk due to multiple environmental factors. The most highly productive fish habitat in southeast Alaska

---

<sup>228</sup> 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.

<sup>229</sup> 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.

<sup>230</sup> U.S. Forest Service. 2000. Roadless Area Conservation Final Environmental Impact Statement at 3-163.

<sup>231</sup> Brief of Amici Curiae Pacific Coast Federation of Fishermen's Associations et al, *Washington v. U.S.*, 584 U.S. \_\_\_\_ (2018)(No. 17-269). Available at: [https://www.supremecourt.gov/DocketPDF/17/17-269/42003/20180402170951297\\_Amici%20Brief%20on%20Behalf%20of%20Pacific%20Coast%20Federation%20of%20Fishermens%20Associations%20et%20al.pdf](https://www.supremecourt.gov/DocketPDF/17/17-269/42003/20180402170951297_Amici%20Brief%20on%20Behalf%20of%20Pacific%20Coast%20Federation%20of%20Fishermens%20Associations%20et%20al.pdf)

<sup>232</sup> U.S. Forest Service. 1995. Report to Congress: Anadromous fish habitat assessment. Pacific Northwest Research Station, Alaska Region. R10-MB-279.

<sup>233</sup> *Id.*

<sup>234</sup> M.D. Bryant & F.H. Everest. 1998. Management and conditions of watersheds in Southeast Alaska: the persistence of anadromous salmon.

<sup>235</sup> *Id.*

overlaps with areas managed for timber production.<sup>236</sup> These areas have also suffered habitat loss at a much greater rate than other portions of southeast Alaska.<sup>237</sup> Additionally, the Forest Service intends to open up Inventoried Roadless Areas for logging that the agency had previously protected in significant part to reduce impacts to aquatic habitat.

Global climate change is likely to exacerbate the effects of habitat degradation by stressing salmon stocks and disrupting migration patterns, decreasing summer stream flows and altering temperature regimes.<sup>238</sup> Hydrological changes will challenge fishery managers.<sup>239</sup> One of the more predictable aspects of climate change will be stream warming.<sup>240</sup> Decreased snowpack and changes in glacial system runoff will alter stream flow patterns that historically maintained cooler summer temperatures.<sup>241</sup> Stream warming will affect each salmon species in different ways, with moderately higher temperatures benefitting some life stages (increased biomass of smolts) while negatively affecting others.<sup>242</sup> ***High temperature events which periodically occur in southern southeast Alaska are likely to become more common and spread to northern southeast Alaska, increasing pre-spawning mortality for pink and chum salmon.***<sup>243</sup> ***Temperature increases in freshwater systems will adversely affect coho and sockeye salmon at various stages of their life cycle.***<sup>244</sup>

Climate caused changes in stream flow will also likely have primarily adverse effects on project area salmon. Late summer low stream flows which periodically occur in southern southeast Alaska are likely to become more common and spread to northern southeast Alaska, increasing pre-spawning mortality for pink and chum

---

<sup>236</sup> *Id.*

<sup>237</sup> D. Albert & J. Schoen. A conservation assessment for the coastal forests and mountains ecoregion of southeast Alaska and the Tongass National Forest. In: Southeast Alaska Conservation Assessment, Ch. 2.

<sup>238</sup> Bryant, M.D. 2008.

<sup>239</sup> C.S. Shanley & D. Albert. 2014. Climate change sensitivity index for Pacific salmon habitat in southeast Alaska.

<sup>240</sup> E.A. Parson, L. Carter, P. Anderson, B. Wang, G. Weller. 2001. Potential consequences of climate variability and change for Alaska. In, Climate change impacts on the U.S. Foundation report, National Assessment Synthesis Team. April 2001. 618 pp. Ch. 10.

<sup>241</sup> Shanley, C.S. et al. 2015. Climate change implications in the northern coastal temperate rainforest of North America.

<sup>242</sup> *Id.*

<sup>243</sup> Bryant, M.D. 2008.

<sup>244</sup> *Id.*

salmon.<sup>245</sup> High flows during winter increase embryo mortality, resulting in declining numbers of returning spawners.<sup>246</sup>

Increased storm strength and sea level rise will also reduce the amount of freshwater habitat and estuarine habitat available to all salmon species for spawning and rearing.<sup>247</sup> Glacial runoff influences downstream freshwater and near shore marine ecosystems – changes in flow, temperature and nutrient dynamics in freshwater ecosystems influence fish abundance across life history stages.<sup>248</sup> Some of these issues are already occurring – NMFS identified low smolt production in Auke Creek was caused by warm creek temperatures and low water depths which in turn were caused by lack of snowfall and snow melt.<sup>249</sup> Because these and other climate related changes are not favorable for salmon, the Forest Service needed to analyze these cumulative effects in detail in the DEIS.

---

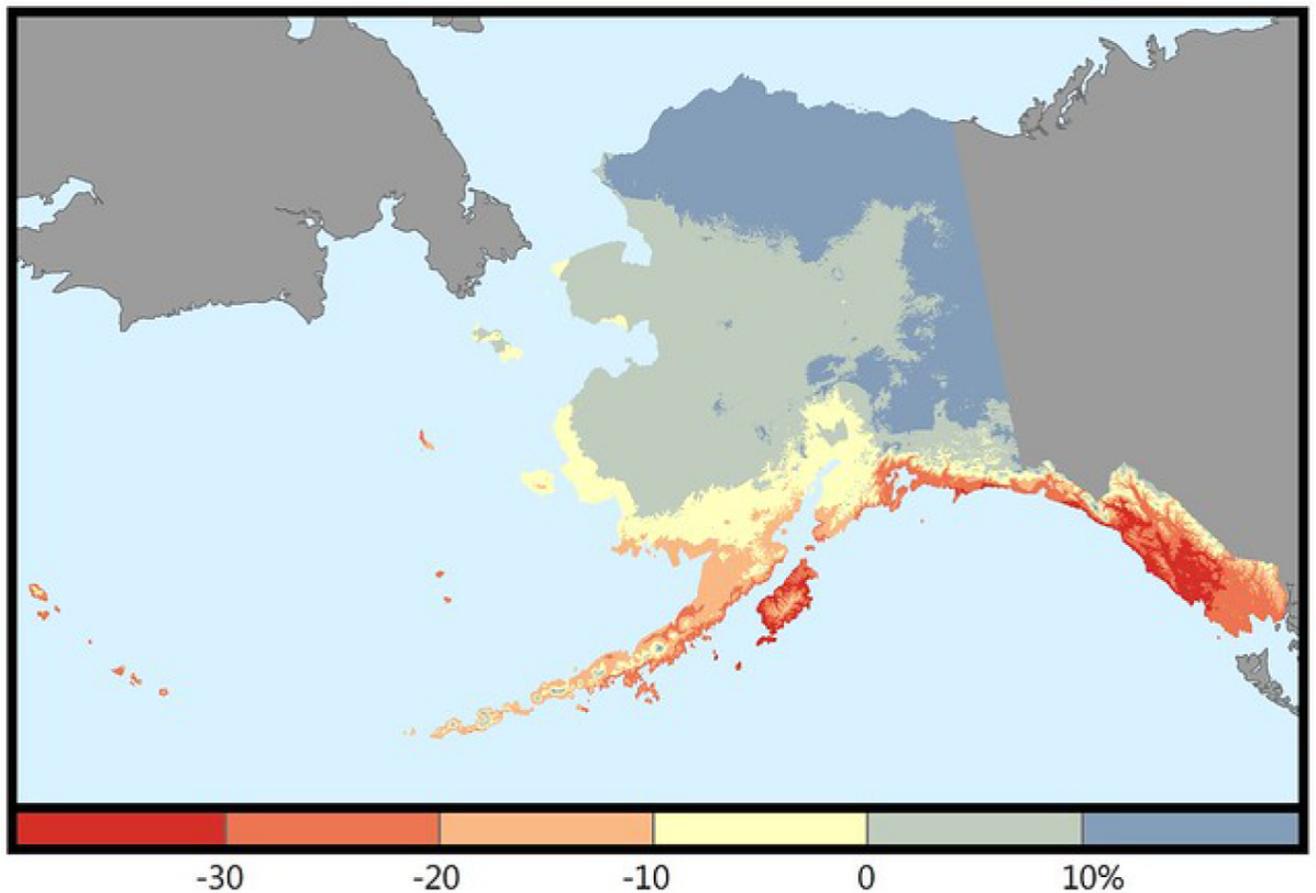
<sup>245</sup> *Id.*

<sup>246</sup> Shanley, C.S. et al. 2015. Climate change implications in the northern coastal temperate rainforest of North America.

<sup>247</sup> Bryant, M.D. 2008.

<sup>248</sup> Shanley, C.S. et al. 2015. Climate change implications in the northern coastal temperate rainforest of North America.

<sup>249</sup> Zador, S. & E. Yasumiishi, eds. Ecosystem Considerations 2017: status of the Gulf of Alaska marine ecosystem. also inside archipelago waters of northern southeast Alaska survey found few juvenile salmons



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)

***B. The Forest Service must develop a funded plan to replace red pipes***

Any Forest Service action to improve watershed function “must” prioritize fish passage improvements by replacing culverts and creating a valid process to fix fish passage in the project area. The “activity cards” and implementation process provide little assurance that the Forest Service will do a better job with this project than it has under the Access and Travel Management Plan or previous timber projects. The Forest Service has repaired roughly a handful of red pipes per year over the past fifteen years, meaning it may take a century to address the 452 red pipes on the two

ranger districts. There is an unfunded goal of improving the repair rate to ten per year, leaving two-thirds of the existing red pipes in place.

The issue of blocked culverts is so important to salmon habitat that tribes have sued the state of Washington in order to require it to fix barrier culverts in order to increase salmon populations in the region. As explained by Earthjustice in an amicus brief filed on behalf of commercial fishermen in the state of Washington:

... because barrier culverts block access to habitat entirely, barrier removal is frequently the most effective recovery measure (and often the measure with the most immediate positive impact) when compared with other habitat recovery efforts, such as reforestation, repairing stream-straightening or channelization, or increasing flows. And obviously, other habitat restoration efforts will be futile if salmon are unable to access the restored habitat.

Earthjustice's brief noted that the district court agreed that barrier culverts "have a significant total impact on salmon production" due to "a negative impact on spawning success, growth and survival of young salmon, upstream and downstream migration, and overall production." Thus, removing them "provides immediate benefit in terms of salmon production, as salmon rapidly re-colonize the upstream area and returning adults spawn there." We believe that fixing these problems is an obligation under the Clean Water Act and Alaska state law, and that there is a NEPA obligation to develop an alternative or mitigation measure that prioritizes the remediation of fish passage problems.

**C. The Forest Service must consider alternatives and mitigation measures for estuarine habitat affected by log-transfer facilities**

Additionally, the Forest Service should more carefully assess adverse impacts to estuarine habitat. The Forest Service intends to utilize or reconstruct a large number of log transfer facilities as part of this project. During the 1990s, the use of LTFs by the Forest Service and other landowners caused severe damage to sixteen saltwater ecosystems in southeast Alaska, resulting the designation of Category 5 impaired waterbodies.<sup>250</sup> Fortunately, a significant decline in timber industry activity has reduced or eliminated use of many of these LTFs, resulting in partial attainment of water quality standards and some recovery of aquatic after several decades of non-use or reduced use.<sup>251</sup>

Defenders has significant concerns about the plan to expand the number of active LTFs in central southeast Alaska and increase the volume of timber moved through LTFs by state and private timber operators. The potential direct, indirect and cumulative effects of federal and non-federal log rafting on fisheries and fishery habitat associated with a federal program to fund and develop marine transportation

---

<sup>250</sup> Alaska Division of Environmental Conservation. \_\_. PUBLIC NOTICE DRAFT Integrated Water Quality Monitoring and Assessment Report at 41-50, 80.

<sup>251</sup> *Id.* at 41-50.

infrastructure presents a significant concern and requires detailed NEPA analysis.<sup>252</sup> For example, the DEIS would add new LTFs on Vank, Shrubby and Kuiu Islands, expanding the number of active fisheries harmed by this project to include shellfish fishermen.

In-water log storage degrades water quality below levels necessary to protect existing commercial fisheries. There is a significant body of science that shows the incompatibility of the marine log storage with benthic habitat. Scientists and non-timber agency resource managers recognize that toxins, bark debris accumulations and the low dissolved oxygen levels they cause adversely impact shellfish species such as Dungeness crab in numerous ways, causing reproductive problems, disease, deformities, prey depletion.<sup>253</sup>

For these and other reasons related to water quality degradation and impacts to the region's more important economic sectors, the LRMP provides that "[w]here feasible, preference should be given to onshore storage and barging of logs." Because the large volume of timber for this project meets or exceeds the volumes that caused Category V water quality impairments throughout the region, the Forest Service needs to prohibit in-water log storage in LTFs utilized by or operated by the Forest Service.

The 2016 LRMP requires that the Forest Service "[a]void, where practicable, siting log transfer, rafting and storage facilities in areas with established commercial, subsistence, and sport fishing activity, high levels of recreation use, areas of high scenic quality, or documented concentrations of species commonly pursued by commercial, subsistence, and sport fishers." Also, LTFs should not be located "in areas known to be important for fish spawning and rearing because of "the high value of the fisheries resources." However, these guidelines are too discretionary, and readily waived every time Viking Lumber whines that barging is too expensive.

The Forest Service needs to provide detailed information about the actual amount of timber transferred through existing or new LTFs, and analyze whether those locations would be consistent Appendix G guidelines. The discussion needs to disclose the adverse environmental impacts caused by bark accumulation and the numerous other adverse and potentially long-term impacts caused by anaerobic

---

<sup>252</sup> 40 C.F.R. § 1508.18.

<sup>253</sup> The Forest Service can obtain the following documents related to log transfer facilities from the Prince of Wales project planning record: Washington Dept. of Fish and Wildlife. 2008. Management Recommendations for Washington's Priority Habitats and Species: Dungeness Crab; Sedell, J.R., F.N. Leone and W.S. Duval. Water Transportation and Storage of Logs. IN: Meehan, W.R. 1991. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. American Fisheries Society Special Publication 19; O'Clair, C.E., and J.L. Freese. 1988. Reproductive condition of Dungeness crabs, *Cancer magister*, at or near log transfer facilities in Southeastern Alaska. Marine Environmental Research 26:57-81; Morado, O'Clair & Sparks. 1988. Preliminary Study of Idiopathic lesions in the Dungeness crab, *Cancer magister* from Rowan Bay, Alaska; O'Clair, C.E. and L. Freese. 1985. Responses of Dungeness crabs, *Cancer magister*, exposed to bark debris from benthic deposits at log transfer facilities: Survival, feeding and reproduction. Pages 227-229 in B.R. Melteff, Symposium Coordinator. Proceedings of the symposium on Dungeness crab biology and management. Univ. of Alaska Sea Grant Rep. 85-3; Kirkpatrick, B., T.C. Shirley and C.E. O'Clair. 1998. Deep-water bark accumulations and benthos richness at log transfer and storage facilities. Alaska Fishery Research Bulletin, vol 5(2): 103-115; NMFS 2006

conditions and benthic pollution that is toxic to many marine organisms. The DEIS also needs to consider the cumulative effects of developing new infrastructure for in-water log storage and facilitating increased use of existing LTF sites through federal and non-federal timber sale programs.

The Forest Service must comply with the consultation and best available science requirements of the Magnuson-Stevens Fishery Conservation and Management Act with regard to Essential Fish Habitat. The development of an expanded LTF network, and increased use of federally funded or operated LTFs by state and private operators is clearly a “large scale planning effort” that involves “potentially large numbers of individual actions that may adversely affect EFH.”<sup>254</sup> Further, the level of detail in an EFH should reflect the best available science, and provide an analysis of adverse effects and proposed mitigation.<sup>255</sup> The significance of nearshore areas to the commercial fisheries warrants a literature review, further site-investigations, and consideration of alternatives that could minimize or avoid adverse effects, including a prohibition on in-water log storage.<sup>256</sup>

A NEPA analysis must provide a detailed discussion of means to mitigate adverse environmental impacts and the effectiveness of those measures, and cannot forgo this analysis by deferring to state regulatory agencies.<sup>257</sup> The Forest Service needs to evaluate how it will minimize the effects of in-water log storage or clean up the mess afterwards. Timber operators in British Columbia employ site deactivation procedures in order to minimize long-term impacts and conduct baseline assessments prior to development. The Washington Department of Fish and Wildlife recommends replanting marine vegetation and removing woody debris in order to mitigate LTF effects on crab.

In sum, the DEIS must provide detailed information about existing proposed new LTF sites, the impacts on the commercial fisheries, consult with NMFS and provide a full analysis of LTF impacts to fish and shellfish habitat, and includes means to mitigate impacts, including a prohibition on in-water log storage, contemporary mitigation measures, and seasonal and timing restrictions on log transfer activities to mitigate disruptions to commercial and recreational users of southeast Alaska’s bays and inlets.

#### **D. Conclusion**

Central southeast Alaska island ecosystems are highly significant in terms of historical salmon production, and resource recovery is critical for commercial fisheries at this time especially given the pink salmon crisis during the even year

---

<sup>254</sup> 16 U.S.C. § 1855(b)(2); 50 C.F.R. § 600.920(j)(1).

<sup>255</sup> 50 C.F.R. § 600.920 (d), (e)(3).

<sup>256</sup> *Id.*

<sup>257</sup> 40 C.F.R. § 1502.16(h); *Oregon Natural Resources Council v. Marsh*, 382 F.2d 1489 (9<sup>th</sup> Cir. 1987); *Friends of the Earth v. Hall*, 120 (W.D. Wash. 1988 (state agencies cannot address the sufficiency of a federal EIS under NEPA).

cycles. The Forest Service's plans to sacrifice aquatic ecosystems for the benefit of Viking Lumber and potentially some other international raw log exporter of second growth timber poses unacceptable risks to the region's economic drivers, particularly sport fishing and commercial fishing. The proposed action's vegetation and access management components would cause immense ecological and economic harm. The DEIS must candidly discuss and disclose the current status of southeast Alaska's salmon populations and the risks presented by the proposed action.

## **VI. Additional comments: Cedar decline, scenery, invasives and inventoried roadless areas**

Our scoping comments requested that the Forest Service consider cedar and large-tree old-growth highgrading, cedar decline and silvicultural prescriptions as a significant and alternative driving issue in the DEIS. We have repeatedly emphasized concerns about a trend across the forest to high-grade certain types of forest structure stands and cedar species. This problem is magnified in the project area because of history of intensive high-grading of large-tree old-growth forests. The DEIS thus needs to include a discussion and disclose data relevant to highgrading high volume large tree old-growth forests that provide optimum fish habitat and winter carrying capacity for deer.

The Forest Service has removed disproportionate amounts of cedar in order to generate positive appraisal sales for decades with no end in sight. The Forest Service includes over 73,317 acres of yellow cedar forest types in its gross unit pool including 10,311 acres on Mitkof Island, 12,151 acres on West Kupreanof Island, and 27,320 acres on Zarembo Island.<sup>258</sup> Old-growth yellow cedar comprises 9 percent, 17 percent, and 16 percent of the volume for each of these respective areas.<sup>259</sup> The Forest Service includes over 16,000 acres of young growth in its gross unit pool in these areas which consists exclusively spruce, hemlock and red alder.<sup>260</sup> What happened to the yellow cedar in regenerating stands?

The DEIS does not answer this question and instead provides a generalized discussion about cedar decline.<sup>261</sup> We requested that the DEIS include alternatives that avoid healthy yellow cedar stands but the agency failed to even provide site-specific analysis or unit cards with species composition data and other information needed to enable public review of specific areas where the Forest Service plans to clearcut remaining healthy yellow cedar stands. The DEIS promises to maintain or increase cedars through future intermediate treatments such as thinning and planting without any analysis as to whether these treatments will be effective.<sup>262</sup> There are serious questions about whether such treatments will work in areas of decline, whether it will be possible to implement any of these treatments in more remote logged areas, and the effects of thinning on yellow cedar regeneration are unknown.<sup>263</sup> As previously noted, the Forest Service's own inventory of young growth volume in the Central Tongass Project unit pool shows there is no yellow cedar, meaning that whatever thinning treatments the Forest Service has done to these stands failed to regenerate yellow cedar.

---

<sup>258</sup> DEIS at 3-60.

<sup>259</sup> *Id.*

<sup>260</sup> *Id.* at 62.

<sup>261</sup> *Id.* at 3-217.

<sup>262</sup> DEIS at 3-223.

<sup>263</sup> See Exh. 13 (Center for Biological Diversity 2014 (Listing Petition)).

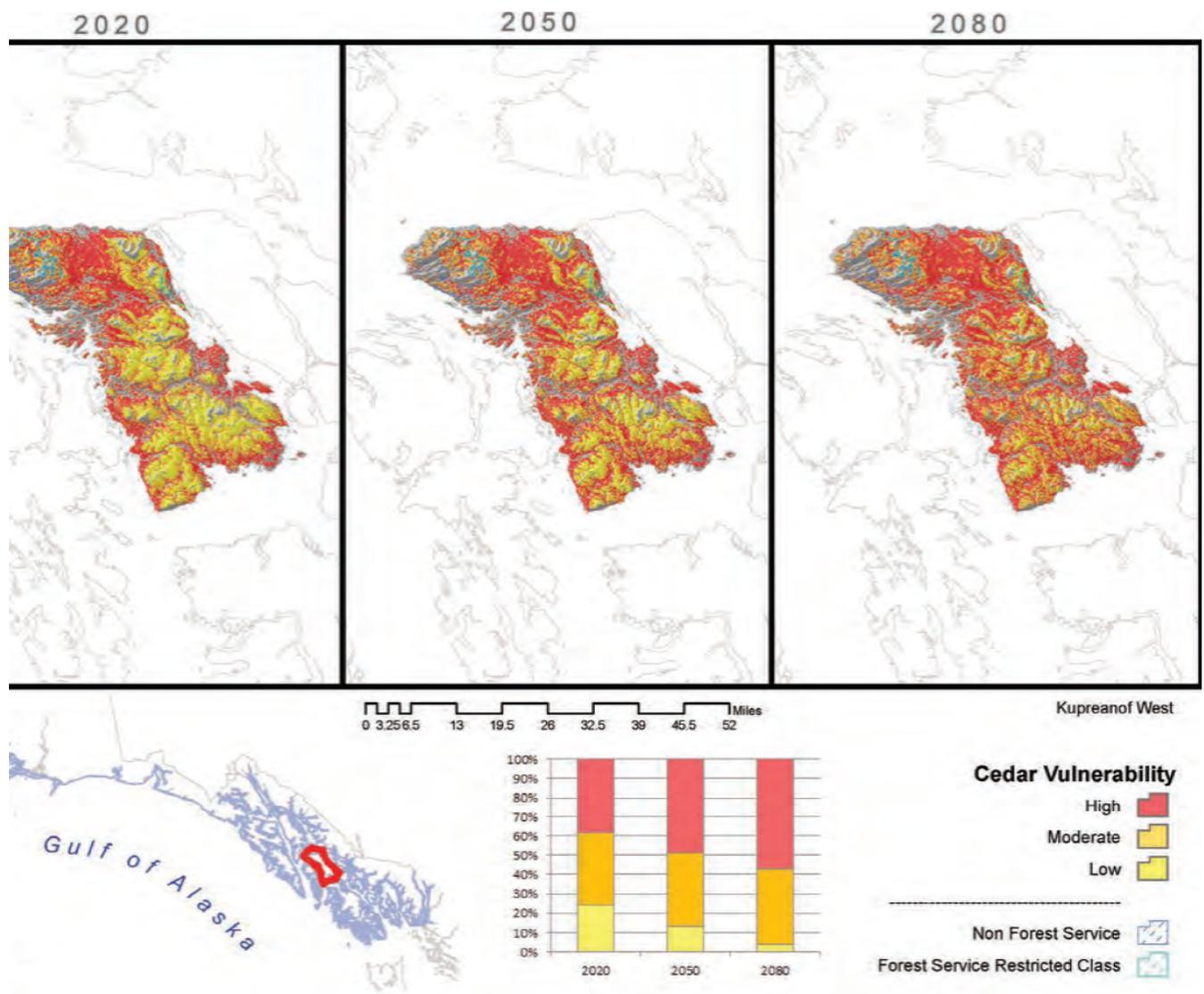
A revised DEIS needs to provide meaningful data from the Alaska Region's developing strategy for cedar conservation and how it is relevant to this project. Because of the forest-wide significance of this issue and because of the extent of cedar decline in the project area, there should be a description of specific cutting units for alternatives that do involve taking yellow cedar. The body of the DEIS should disclose how many cutting units occur in areas of adequate soil drainage where cedar decline is less likely to occur.

For example, the Forest Service has mapped and projected current and future levels of cedar decline at scales similar to project area Timber Analysis Areas. There is available data to show where in the project area yellow cedar has the highest likelihood of persisting over the next 80 years, and where there is high of further decline.<sup>264</sup>

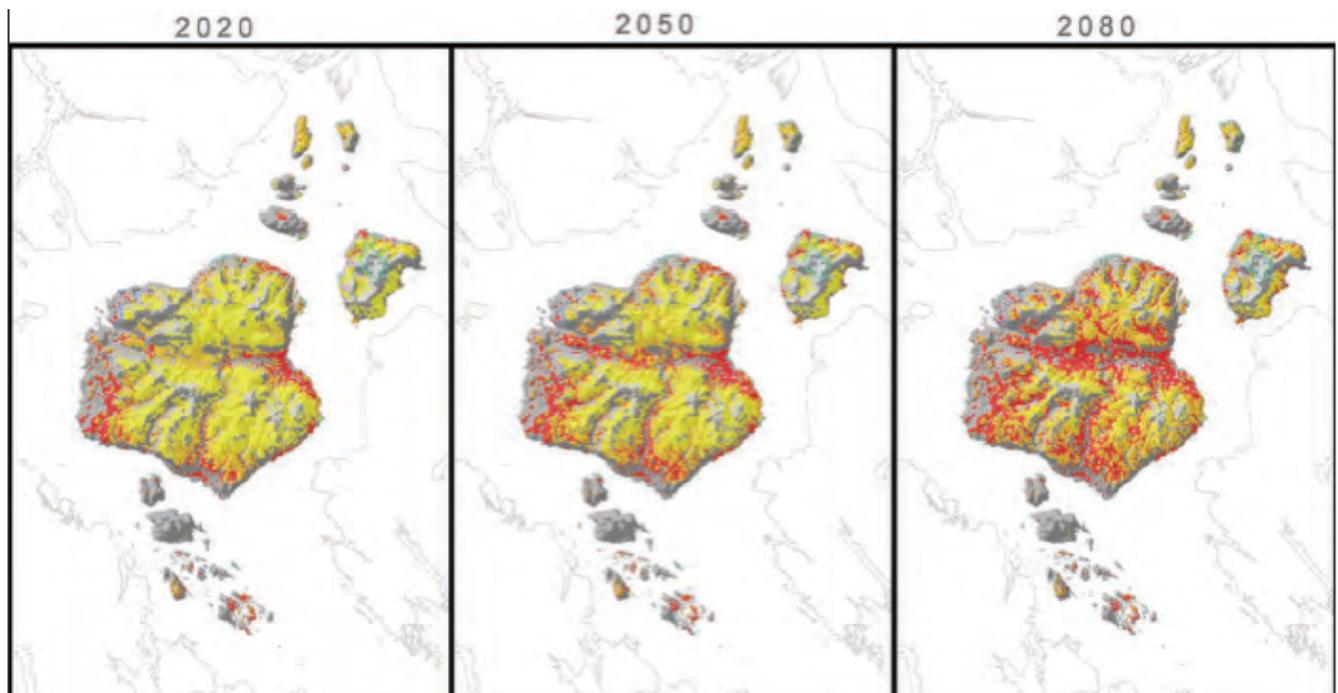
West Kupreanof, for example, contains 6.6 percent of the yellow cedar acreage in southeast Alaska, and 12.1 percent of the acreage in decline.

---

<sup>264</sup> PR 832\_0539.



Will there be any yellow cedar left of Zarembo Island if the Forest Service proceeds to implement most of the project in that Timber Analysis Area?



The Forest Service would authorize timber sale purchasers to remove disproportionate amounts of yellow cedar from multiple Timber Analysis Areas proposed in the DEIS. The DEIS does not inform the public whether the agency expects the species to persist in one portion of an area or another. This broad level of analysis is not acceptable under NEPA.

Also, Defenders believes the Forest Service should cease planning on the proposed Forest Plan amendment that would change Scenic Integrity Objectives. Many of our members reside in central Southeast Alaska communities and the purported need to increase clearcutting in plain view of our travel routes for boat-based fishing, hunting and other commercial and recreational pursuits is unconscionable. This project opens up tens of thousands of acres for clearcutting and there is no need to scar the visible landscape for decades.

Finally, the DEIS ignores the potential impacts of the pending exemption or partial exemption alternatives to the Roadless Rule in southeast Alaska. This action would significantly alter the distribution of existing fish and wildlife habitat throughout the region, and the omission of any discussion of this action in the DEIS is a major flaw.

### ***VIII. Conclusion: Cancel action***

Defenders requests that you cease planning on this destructive project.

*Rebecca Knight*

---

Rebecca Knight (for Larry Edwards, President)

