

Alaska Rainforest Defenders

A regional environmental organization established in 2011 (formerly GSACC)

Box 6064 Sitka, Alaska 99835

December 19, 2017

Delilah Brigham
POW LLA Project Leader
P.O. Box 19001
1312 Federal Way
Thorne Bay, AK 99919
Submitted electronically at

<https://cara.ecosystemmanagement.org/Public/CommentInput?project=50337>

Re: Comments on "Prince of Wales Landscape Level Analysis Project – Draft Issue Statements and Alternatives, 12/5/17"

Ms. Brigham:

I submit these comments on behalf of Alaska Rainforest Defenders ("Defenders"). Defenders' members use the Tongass National Forest, including the project area, for recreation, commercial fisheries, subsistence, wildlife viewing and other activities. In particular, our board members have engaged in considerable advocacy on behalf of the integrity of the Prince of Wales Island ecosystem, its wildlife populations including those of the Alexander Archipelago Wolf, Queen Charlotte Goshawk and Sitka black-tailed deer among many others, and the reliance of people on that integrity and web of life. Prince of Wales Island is a primary producer of deer in southern Southeast Alaska, supporting harvest by island residents and residents of other southeast Alaska communities. The Forest Service authorized Viking Lumber to destroy much of the best remaining publicly owned winter deer habitat in the central portion of the island through the recent Big Thorne and Logjam projects. The 2016 and 2017 deer seasons were less productive for local subsistence deer hunters. The range of action alternatives under consideration for the POW LLA project are almost certain to cause local if not island-wide extirpations of some species and force survivors into isolated patches of lower quality habitat.

Our board and members depend on southeast Alaska's commercial salmon fisheries. There have been recent (2016 and 2017) declines in pink salmon harvests in the Alaska Department of Fish and Game's (ADF&G) regulatory districts adjacent to Prince of Wales Island. In 2016 the pink salmon fishery was a disaster.¹ These declines make it essential for the Forest Service to consider whether the need to provide aquatic habitat for fishery resources should take priority over the interests of timber exporting² businesses whose economic "contributions" to the region are negative given the massive public cost of the federal timber program. The Forest Service and other timber agencies have logged

¹ Exh. FSH 1 (Walker 2016).

² Defenders acknowledge that one of the timber exporters operates a small mill. But that operator, Viking Lumber, exports all of 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.

watersheds in the 1.5 million acre North Central Prince of Wales Island biogeographic province so intensively that only 15% of the island's watersheds consist primarily of intact habitat.³

The following comments respond to the Forest Service's December 5, 2017 document entitled "Prince of Wales Landscape Level Analysis Project – Draft Issue Statements and Alternatives, 12/5/17."⁴ We support the no-action alternative. While we have considerable interest in meaningful measures to address past habitat degradation, such as the development of a program to replace red pipes and improve fish passage, any effort to ameliorate these conditions will be wholly undermined by the proposed levels of logging in every one of the action alternatives.

Exhibits cited below were mailed to you today on a DVD disk. A list of them is provided in an appendix.

Please send any written correspondence to the address above and any electronic communications to the email address below the signature at the end of these comments.

³ Forest Service. 2016. Tongass Land and Resource Management Plan FEIS at 3-197. R10-MB-769e.

⁴ Defenders will cite this document as "POW LLA 12.17" where referenced in these comments.

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I. Introduction

The Forest Service proposes three action alternatives that would extract between 330 (Alternative 2) and 689.4 million board feet (MMBF)(Alternative 4) of timber from both old growth forests and recovering, regenerating forests that the Forest Service once intended to recover and provide old-growth habitat for wildlife. The action alternatives provide no consideration for multiple use resource values. These levels of timber extraction are unreasonable, particularly in light of the damaged ecological condition of the island. This project follows on the heels of the largest and most destructive federal timber project in decades, the Big Thorne Stewardship Project, leaving even less to work with, and creating unacceptable environmental risks.

Further, the proposed volume is an unreasonable assessment of current and potential demand for timber from the project area, particularly in light of changing landownership patterns and the pending availability of large amounts of old-growth timber from another timber bureaucracy, the Alaska Mental Health Trust's Trust Land Office.⁵ Instead, this project continues the trend of managing public lands on Prince of Wales Island as a subsidized federal timber colony that predominantly 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 November 30, 2016 scoping notice for POW LLA identified project purposes that included improving forest eco-system health and providing for community resiliency. A Prince of Wales Island project aimed at those goals would implement fisheries habitat remediation projects on Prince of Wales Island with an emphasis on repair or removal of barrier culverts and/or road decommissioning. Carefully planned pre-commercial thinning projects could provide some temporary benefit to wildlife populations while second-growth forests recover to the point of providing wildlife habitat capability over time. We would support recreation infrastructure improvements. But this may be an empty promise given the Forest Service's cuts to recreation budgets and the emphasis on allocating Forest Service administrative resources to infrastructure and planning aimed at providing Viking Lumber with a third or even two-thirds of a billion MMBF of federal timber from publicly owned old growth and recovering forests.

We first submit that the Forest Service *needs to re-scope this project* given previous deficiencies in the NEPA process and the shocking development of Alternative 4, which would require a significant Forest Plan Amendment along with other administrative and legislative action. Scoping is to "be an early and open process" and time limits for NEPA processes must reflect: "(i) [p]otential for environmental harm; [(ii)] the size of the proposed action[:]; ... (v) [n]umber of persons and agencies affected[:]; (vi) [d]egree to which relevant information is known and if not the time required for obtaining it [and] (vii) [d]egree to which the action is controversial."⁶ NEPA requires that the Forest Service "[m]ake diligent efforts to involve the public," including publication in the Federal Register when an action has "effects of national concern."⁷

The Forest Service has previously provided two scoping opportunities – one occurring during the summer season when most southeast Alaska residents are unavailable, and another during the holiday season.⁸ The previous scoping document indicated that the

⁵ Exh. TIM 1, Alaska Mental Health Trust Land Office. 2017. Best Interest Decision, Naukati Exchange Timber Sale. MHT 9100901.

⁶ 40 C.F.R. §§ 1501.7, 1501.8.

⁷ 40 C.F.R. § 1506.6.

⁸ See 81 Fed. Reg. 86320 (November 30, 2016), 82 Fed. Reg. 31284 (July 7, 2017).

Forest Service did not intend to initiate a Forest Plan Amendment as part of this project.⁹ Now the Forest Service has developed Alternative 4 to authorize logging in Inventoried Roadless Areas set aside by national and regional rulemakings for fish, wildlife and recreation and, importantly, for fiscal reasons. A two-week, pre-holiday comment period is clearly inadequate to address this even more controversial proposal - an issue of national concern, warranting publication in the Federal Register.

We note, furthermore, the POW LLA project's webpage was not updated with the public review documents until December 14, 2017 — 9 days into the 14 day comment period, and only 5 days before the already incredibly tight deadline.¹⁰ Although links to the new documents were included in an email to some citizens, announcing the comment period, the legal notice¹¹ for the comment period gave only the link to the project's webpage, which was devoid of those documents for about two-thirds of that period. Not only was the 14-day comment period unreasonably short for the public, this shows that the launching of the comment period was too rushed even for the Forest Service itself to timely provide the necessary documentation to all.¹²

II. Range of Alternatives

The Draft Alternatives section of the new paper lists 4 alternatives – (1) a no action alternative; (2) Alternative 2, which is an alternative developed by an unauthorized federal advisory committee, the Prince of Wales Landscape Assessment Team;¹³ (3) Alternative 3, which would provide a different mix of old and young growth, and (4) Alternative 4 which would maximize timber harvest by authorizing old-growth extraction in IRAs and other areas previously set aside for multiple uses by other socio-economic sectors. [POW LLA 12.17 at 5]. Alternative 4 would require Congress or the Forest Service to repeal federal regulations

⁹ 81 Fed. Reg. at 86,321.

¹⁰ Exh. PROJ 1. Screenshot of the project's webpage showing the date the new documents were posted. Captured on 18 December 2017.

¹¹ Ketchikan Daily News, December 5, 2017.

¹² How many citizens read the legal notice, visited the project website, found nothing actionable there, and accordingly did not comment as thoroughly (if at all) as they otherwise would have? The nature of this fundamental process error is such that there is no way to know!

¹³ Our December 2016 scoping comments explained that the development of Alternative 2 occurred in violation the Federal Advisory Committee Act (FACA). We reiterate that the Forest Service utilized an unauthorized advisory committee to develop Alternative 2. In March 2016, the Forest Service encouraged "a POW-Island based group to form and take a large part in the effort to develop the Forest Service's landscape assessment." The group then formed in May 2016 explicitly to "function in advisory capacity to develop recommendations regarding the Prince of Wales Forest Service Landscape Assessment." The Prince of Wales Landscape Assessment Team's (POWLAT) stated mission is to:

...assist the [U.S. Forest Service] in the development of a landscape level assessment for Prince of Wales Island area by developing and providing recommendations to the Forest Service that contribute to the well-being of the National Forest and to lasting economic and social resilience within the Landscape Assessment area. [POWLAT 2016, Attachment 6].

The use of the POWLAT to define the scope of the action and alternatives bypassed the initial scoping process, and ignores NEPA's mandate to "[e]ncourage and facilitate public involvement in decisions which affect the quality of the human environment." [40 C.F.R. § 1500.2(d)]. The POWLAT is clearly an advisory committee within the meaning and coverage of FACA and was subject to its requirements. The Forest Service initiated the POWLAT, funded it, provided it with direction as to how make recommendations, comprised the largest number of participants at meetings, and then ultimately adopted those recommendations as the proposed action for the NEPA analysis.

prohibiting logging in IRAs and repeal or amend the Forest Plan. [*Id.*]. Thus, this most recent development for the project includes an illegally developed alternative (Alternative 2), Alternative 3, and a fourth alternative which is currently unlawful pending efforts to amend the Forest Plan.

A. Description of the alternatives

Alternative 2 extracts 200 MMBF of old growth timber over the next decade: 25 MMBF annually from 2019 through 2023 and 15 MMBF annually from 2024 through 2029. [POW LLA 12.17 at 11-12]. The Forest Service would then evaluate whether to cut the remaining old growth on the island. [*Id.*]. Alternative 2 would also begin removing second growth forests from the island in year four of the project and escalate second growth removals in year 9 so as to remove a total of 130 MMBF by year 15 of the project, thus substantially delaying the forest succession process. [*Id.*]. This project would thus remove, at a minimum, 330 MMBF over a fifteen year period. 90 miles of new road construction and 250 miles of temporary road construction will add to the ecological and economic cost of the project. [*Id.* at 22].

Alternative 3 would extract 170 MMBF of old growth over a fifteen year period at a slower rate than Alternative 2: 10 MMBF per year for years 1 to 5; 8 MMBF per year in years 6 to 10; and 5 MMBF per year in years 11 to 15 — plus a 3 MMBF set-aside for “small sales” on the northernmost portion of the island. [*Id.*] It also would remove 264.4 MMBF of young growth over a fifteen year period, with removals escalating to 25 MMBF annually in years 8 – 15. [*Id.* at 11-12]. And there would be 90 miles of new road construction and 250 miles of temporary road construction. [*Id.* at 22].

Alternative 4 would: remove 250 MMBF of old growth in years 1 – 5; 150 MMBF in years 6 – 10; and 75 MMBF in years 11 – 15. That is 425 MMBF over the next fifteen years. [*Id.*] This Alternative would remove nearly half of the estimated old-growth remaining on the island and a post-decision document in year sixteen could authorize Viking Lumber to liquidate whatever old-growth remained over the next decade (years 16-25). [*Id.*].¹⁴ Alternative 4 would also include Alternative 3’s second-growth extraction scheme so that the Forest Service would remove 689.4 MMBF overall. [*Id.*]. The Forest Service would build over a thousand miles of new road – comprised of 570 miles of permanent road and 450 miles of temporary road. [*Id.* at 22].

B. The Proposed Range of Alternatives Violates NEPA

The Forest Service unlawfully eliminated downscaled timber extraction alternatives from further analysis. In particular, timber planners rejected a no old-growth, limited second growth and no clearcut project:

... because timber volumes under this alternative would not sustain a local timber industry to meet the purpose and need of this project. It doesn’t meet the need for a sustainable level of forest products to contribute to the economic viability of Prince of Wales communities and doesn’t address the need for young growth forest to produce future desired resource values, products, services, and forest health conditions that sustain the diversity and productivity of forested ecosystems. [POW LLA 12.17 at 5].

The Forest Service also rejected a downscaled project that would limit old-growth extraction to small sales aimed at supplying cottage industry. [POW LLA 12.17 at 6].

¹⁴ See POW LLA 12.17 at 6 (eliminating a 100 MMBF annual old-growth removal alternative because it would liquidate old-growth forests on the island in ten years, thus showing an estimated total of 1 billion MMBF remaining).

Alternatives which continue extensive clearcutting of old-growth forests fail to address other legal obligations to protect clean water, to maintain habitat for sensitive and subsistence species and to manage forest for multiple uses. The Forest Service must develop at least one action alternative that does not include any old growth logging, and must develop additional alternatives with substantially downscaled volumes of old growth and second growth logging. The Forest Service's development of alternatives thus far has ignored the majority of public comment during previous scoping opportunities that requested downscaled alternatives.¹⁵ The failure to provide for such alternatives is unlawful, and the Forest Service should issue a revised scoping notice prior to preparing a DEIS.

NEPA imposes an obligation to "[r]igorously explore and objectively evaluate all reasonable alternatives." [40 C.F.R. § 1502.14(a); see also *Barnes v. U.S. Dep't. of Transp.*, 655 F.3d 1124, 1131 (9th 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"). An agency must "consider such alternatives to the proposed action as may partially or completely meet the proposal's goal." [*City of New York v. U.S. Dep't of Transp.*, 715 F.2d 732, 742-742 (2nd Cir. 1981)].

A "reasonable" range of alternatives includes alternatives "that are practical or feasible" and not just those alternatives preferred by the agency. [Council on Environmental Quality (CEQ), Forty Most Asked Questions, Questions 2A and 2B; 40 C.F.R. §§ 1502.14, 1506.2(d).¹⁶ 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." [40 C.F.R. §§ 1502.14]. 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." [*Westlands Water Dist. V. U.S. Dep't of Interior*, 376 F.3d 853, 872 (9th Cir. 2004)(citations omitted)].

While an EIS need not include every conceivable alternative, [*Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 551 (1978)], "[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate." [*Westlands Water Dist.*, 376 F.3d at 868]. 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." [*New Mexico ex rel. Richardson*, 565 F.3d 683, 708 (10th Cir. 2009)(citations omitted)].

The range of alternatives proposed in the December 5, 2017 "Draft Issue Statements and Alternatives" document fails those standards. The three action alternatives all drive at the same result – intensive clearcutting of old-growth and recovering forests on an island 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.

¹⁵ <https://cara.ecosystem-management.org/Public/ReadingRoom?List-size=25&Project=50337&List-page=1>

¹⁶ available at <http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm>;

1. A range of alternatives should have meaningful, quantitative distinctions and not be similar and aimed at one end result

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. [CEQ 40 Most Asked Questions, Question 1b].¹⁷

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. [*State of Cal. v. Block*, 690 F.2d 753, 766 (9th Cir. 1982)]. 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. [*Id.* at 766-768]. 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. [*Id.* at 768].

Similarly, in *Center for Biological Diversity v. Nat. Highway Traffic Safety Admin.*, the 9th Circuit reviewed a range of alternatives that would regulate vehicle emissions through fuel economy standards. [*Center for Biological Diversity v. Nat. Highway Traffic Safety Admin.*, 538 F.3d 1172, 1218 (9th Cir. 2008)]. 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. [*Id.*]. The court explained that the agency considered "a very narrow range of alternatives" with a minimal range of impacts. [*Id.* at 1218-1219]. All of the alternatives derived from a single study - NHTSA's cost-benefit analysis. [*Id.* at 1218]. The court concluded that NHTSA's excuses for failing to consider more stringent standards that would allow for increased conservation benefits were flawed. [*Id.* at 1219].

Finally, in a Tenth Circuit case, *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 and gas leasing. [*New Mexico ex rel. Richardson*, 565 F.3d 683, 688-689 (10th Cir. 2009)]. The BLM eliminated alternatives that would have heightened environmental protections relative to the existing plan and considered only two alternatives despite extensive public comment requesting alternatives that would protect environmentally sensitive areas. [*Id.* at 709]. The court noted that there were "powerful" environmental values associated with

¹⁷ <https://ceq.doe.gov/nepa/regs/4011/1-10.HTM> (question 1b).

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. [*Id.* at 710-11; *see also Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 812-813 (9th Cir. 1999)(ruling that the Forest Service “failed to consider an adequate range of alternatives [where t]he EIS considered only a no action alternative along with two virtually identical alternatives”).

Taken together, *New Mexico ex rel. Richardson, Center for Biological Diversity*, and *State of Cal.* all demonstrate 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 proposes a group of intensive logging alternatives and fails to even consider lower volume alternatives despite the serious risks to multiple use resources caused by any level of additional habitat degradation on the island.

2. An EIS for a long-term, massive-scale timber project should include alternatives with reduced timber volumes

The NEPA analysis for this project will require a programmatic EIS in that the project establishes a long-term plan for various resources over an extended period of time and over an 800,000 acre area.¹⁸ The project will also require a travel management analysis for hundreds of miles of new and temporary roads - actions that independently would require a massive EIS. [POW LLA 12.17 at 8]. This programmatic function heightens the need to consider alternatives with much lower amounts of old-growth and second-growth logging and associated road construction. Ninth Circuit case law has demonstrated the necessity for programmatic analyses to include alternatives that reduce the rate of old-growth logging. In *Resources Limited Inc. v. Robertson*, the 9th Circuit reviewed and approved the range of alternatives in an EIS that considered 17 alternatives, including five timber removal alternatives that were more than 18% lower than existing levels. [*Resources Limited Inc. v. Robertson*, 35 F.3d 1300, 1307 (9th Cir.1993)]. In *Seattle Audubon Society v. Moseley*, court determined that the inclusion of an alternative that would have protected all old-growth timber satisfied NEPA’s requirements. [*Seattle Audubon Society v. Moseley*, 80 F.3d 1401, 1404 (9th Cir. 1996); *see also Westlands Water Dist.* 376 F.3d at 868 – 872 (concluding, in a non-programmatic context, that a Department of Interior EIS evaluating six alternatives, including two endpoints for maximum and minimum instream water flows and mid-range alternatives was sufficient under NEPA)].

For example, two of the eleven alternatives in the 2008 TLMP FEIS provided for lower levels of timber removals than the volume perceived necessary by the Forest Service to meet market demand. [See, e.g. 2008 TLMP FEIS at 3-532]. This approach reflected the Forest Service’s recognition under the previous planning rule that NEPA requires alternatives that reflect a range of minimum and maximum resource potentials to reflect a full range of resource values uses and values produced from public forests. [See, e.g. *Natural Resources Defense Council*, 421 F.3d at 813 (citing 36 C.F.R. § 219.12)].¹⁹

¹⁸ TLMP FEIS at 3-191-192, Table 3.9-3.

¹⁹ Although the new planning rule does not carry over alternative development requirements from §219.12(f), the exclusion was because the requirements were duplicative of NEPA’s requirements. See 77 Fed. Reg. at 21,203.

3. The DEIS must provide detailed analysis of the socio-economic and ecological benefits of the no-action, environmentally preferred alternative

NEPA requires that the Forest Service eventually identify an environmentally preferred alternative. [40 C.F.R. § 1505.2(b)(the Record of Decision must “specify[] the alternative or alternatives which were considered to be environmentally preferable”)]. The no-action alternative would serve as a “benchmark” that would enable the public and decisionmaker to “compare the magnitude of environmental effects of action alternatives.” [USDA 2015 at 2-30].²⁰

As explained by the CEQ,

The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. [CEQ, Forty most asked questions, question 6a].

Only the no-action alternative here would be consistent with the policy purposes enunciated in Section 101:

(b) In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. [42 U.S.C. § 4331(b)].

The Forest Service needs to provide meaningful analysis of the economic and ecological benefits of the no-action alternative in the DEIS, for three reasons.

(1) Climate change: As shown by numerous expert comments and other materials in the planning record for the 2016 Forest Plan Amendment, there is a scientific consensus that only a no-harvest scenario prevents a carbon flux deficit from federal forests in southeast Alaska. NEPA's broad purposes clearly set forth a requirement to consider intergenerational equity, the clear public health and safety dangers associated with climate change, and other related factors. [42 U.S.C. § 4332(b)(1), (2), (3), (6)].

As the CEQ explains in its draft guidance on climate change in NEPA analyses:

²⁰ USDA 2015. Saddle Lakes Timber Sale; Final Environmental Impact Statement. R10-MB-740a. Forest Service, Alaska Region. Ketchikan, Alaska: September 2015.

The requirement to consider alternatives is meant to ensure that agencies consider approaches with no, or less, adverse environmental effects as compared to the proposed action or preferred alternative. This requirement seeks to ensure that each agency decisionmaker has the information needed to take into account possible approaches to a particular project (*including the no-action alternative*) that would alter the environmental impact or the balance of other factors considered in making the decision. Consideration of alternatives provides an opportunity to make the best informed, and potentially, most beneficial decision. Such decisions are aided when there are comparisons among preferred and other reasonable alternatives in GHG emissions and carbon sequestration potential, in trade-offs with other environmental values, and in the risk from and the resilience to climate change inherent in a proposed design. [Exh. CLIM 1 at 19 (CEQ 2014)(emphasis added)].

Thus, it is necessary for the analysis to carefully consider the extent to which the non-action alternative would mitigate climate change by lowering CO₂ emissions and maximizing carbon storage. [40 C.F.R. §§ 1508.20, 1508.25 (mitigation means that the agency must consider ways to avoid the impacts, minimize or limit impacts, reduce or eliminate them over time, and compensate for them)]. Only the no-action alternative meets this analytical need, and the DEIS should explicitly disclose the significant environmental benefits associated with the no action alternative.

(2) Lost economic outputs from commercial fisheries: The DEIS needs to include economic losses in the economic analysis. Scientific studies that have found strong negative correlations between logging road density and salmon productivity.²¹ 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 [from major floods] resulted from areas which had been clearcut or which had roads constructed on unstable soils.²²

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. [Exhs. FSH 2, 3, 4].²³ Canadian researchers in 2003 developed habitat values (which the

²¹ 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>.

²² 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.

²³ 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; Knowler, D. et al. 2001.

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). [Exh. FSH 4]. A 1988 study identified significant economic losses to salmon fisheries caused by logging and road construction on just 21% of the Siuslaw National Forest.²⁴ 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. [Exh. FSH 5].²⁵

In other words, the POW LLA project will significantly sacrifice annually renewable economic outputs in order to supply Viking Lumber. The DEIS needs to assess the significant positive economic impacts of the no-action alternative in terms of reducing risks of further declines in fishery outputs.

(3) Deer habitat and harvest: the DEIS needs to evaluate the no-action alternative in terms of benefits to subsistence users and other deer hunters. In addition to losses caused by other timber land owners, Viking Lumber removed many of “the last remaining stands of high quality deer winter habitat and travel corridors within their respective drainages within the central part of POW” as part of the Logjam and Big Thorne projects.²⁶ Experimental Forest Service effort to create canopy openings in second-growth forests will not replace winter habitat.²⁷ ADF&G acknowledges that:

We should better inform the public regarding the effects of logging on deer populations, so that they are aware of tradeoffs between timber harvest and wildlife. We anticipate that logging related reductions in important winter habitat will reduce deer carrying capacity for decades to come. The long term consequences of habitat loss include loss of hunting opportunity and the inability to provide for subsistence needs of rural residents.²⁸

These ADF&G views were furthered in an interview, aired on public radio yesterday, of a POW representative on the Federal Subsistence Board's Southeast Alaska Regional Advisory Committee, Mike Douville:

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.

²⁴ 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. We request that the Forest Service obtain this study and include it in the planning record.

²⁵ ECONorthwest. 1999. *Salmon, timber and the economy*. Numbers in 1999 dollars.

²⁶ Exh. WL 5. Bethune, S. 2015. Unit 2 deer at 4-5. Chapter 4, pages 4-1 through 4-15. [In] P. Harper and L. A. McCarthy, editors. *Deer management report of survey and inventory activities 1 July 2012-30 June 2014*. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-3, Juneau (emphasis added).

²⁷ *Id.* at 4-6.

²⁸ *Id.*

Douville says nearly all the big trees were standing when he was young. The first logging camps were just getting started. "The island was pristine. There was no clear cuts on it," he says. "So I've watched it turn from what it is today."

...

He thinks big timber sales on Prince of Wales should become a thing of the past — even if that means the last remaining sawmill dries up. "I'm not willing to sacrifice this island to keep it running," Douville says. "I think there's a limit on how much you donate to the cause and I think that we're there."²⁹

The DEIS must also address these trade-offs in assessing the benefits of the no-action alternative. At the Southeast Alaska Subsistence Resource Advisory Committee's winter 2017 meeting in Craig, subsistence users identified a harder time harvesting deer during the 2016 season.³⁰ Then, the 2017 deer season "was the worst in recent memory for a lot of hunters on POW."³¹ These declines are leading island residents to identify big timber sales as a large part of the problem, and opposition to further sacrifices of old-growth habitat for Viking's operation, even if it means closing the mill.³² ADF&G has documented an increased number of hunters over the past decade, including non-residents, causing concerns from subsistence hunters.³³ Part of the increase is due to low deer numbers on islands adjacent to other southeast Alaska communities.³⁴ Additionally, guided hunts for non-Alaska residents have increased.³⁵ Thus, the no-action alternative would provide significant benefits for subsistence users, and economic opportunities on the island associated with guide businesses and services for residents of other southeast Alaska communities.

In sum, the DEIS must provide a detailed analysis of the benefits of the no-action alternative.

4. 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. See *Or. Nat. Des. Ass'n v. U.S. BLM*, 625 F.3d 1092, 1109 (9th Cir. 2010). 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. [16 U.S.C. § 1604(e)]. 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." *Id.* § 1604(g)(3)(B).

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's interests. This approach does not reflect the intent of Congress. It is instead simply the desire of the Forest Service to serve its

²⁹ Exh. WL 17. Audio statements of Mike Douville in story by Elizabeth Jenkins (APM/APRN), "Tongass in Transition: Wolves and logging both cut into Prince of Wales deer." Aired on KTOO, Juneau on 18 Dec. 2017. <https://www.ktoo.org/2017/12/18/tongass-transition-wolves-logging-cut-prince-wales-deer/>

³⁰ Exh. WL 4. Southeast Alaska Subsistence Regional Advisory Committee Materials at 83.

³¹ Exh. WL 1 (Jenkins 2017).

³² *Id.*

³³ Exh. WL 4 at 91 – 99, Exh. WL 5 at 4-3-4-4.

³⁴ *Id.*

³⁵ *Id.*

primary constituency. The legislative purposes of NFMA carry more weight for the purposes of the NEPA analysis. [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)].

Plainly, plant and wildlife viability are a central purpose of NFMA and its implementing regulations. This should have been a driving feature behind the development of alternatives. *Cf. id.* 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 alternatives with no or downscaled old growth logging, on grounds that they would not facilitate the agency's narrow commercial timber harvest goals, fails to reconcile the agency's substantive obligations. See *id.* (explaining that the "statutory objectives underlying the agency's action work significantly to define its analytic obligations"); *cf. id.* at 1124 (where BLM in amending management plan considered no alternative that proposed closing more than a fraction of the planning area to ORV use, agency violated NEPA because it "uncritically privilege[d] one form of use over another").

5. Conclusion: the Forest Service should rescind its "Draft Issues and Statements" document 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." [*California v. Block*, 690 F.2d at 767]. 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. [See 42 U.S.C. § 4332]. 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. [See 40 C.F.R. § 1500.1(b), (c)].

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. [*Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1180 (9th Cir. 1990); *California v. Block*, 690 F.2d at 767]. Here, the agency's proposed exclusion of downscaled logging alternatives deprived the public and the decisionmaker this fundamental exercise required by NEPA. [*California v. Block*, 690 F.2d at 768 ("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.")].

III. Significant Issues

The Forest Service identified the following significant issues during the scoping process: (1) invasive plant management; (2) subsistence; (3) timber supply; (4) watershed function and (5) wildlife habitat. These are significant issues, however, many of the chosen metrics for analysis will be inadequate to fully address the adverse impacts of this project. We raise specific concerns below, in that same order.

A. Invasive Plant Management (and the project's proposed use of herbicides)

The Draft Issue Statement states that using non-herbicidal treatments "may not effectively reduce the establishment and spread of invasive plant populations" but will increase chemical exposure to humans, wildlife, aquatic and other resources. [POW LLA

12.17 at 1]. The Forest Service states that it will analyze chemical exposure scenarios for affected resources, including human health. [*Id.* at 2]. Defenders opposes the use of the Forest Service's integrated weed management approach under Alternatives 3 and 4. Alternative 2 would instead use mechanical treatments and avoid the use of herbicides. [*Id.* at 9 – 10]. The use herbicides is a serious human rights issue because the Forest Service would authorize non-consensual exposure to chemical invasions of the body – compromising human health, particularly for children and pregnant women.³⁶ Herbicide use also has significant impacts on juvenile salmon, affecting growth and survival and ultimately the productivity of aquatic ecosystems.³⁷

Risk assessments – the method identified for Alternatives 3 and 4 – often are inadequate to disclose impacts due to the inability to address synergistic impacts caused by exposure to multiple chemicals.³⁸ If the Forest Service plans to endanger human and aquatic health through Alternatives 3 and 4, the analysis should include significant buffer zones for community water sources and fish habitat, including headwaters streams.

B. Subsistence

The Draft Issue Statement notes concerns about project impacts to subsistence resources. [POW LLA 12.17 at 2]. The Forest Service intends to measure impacts through four metrics: (1) acres of young-growth on south facing slopes below 800 feet, by Wildlife Analysis Area (WAA); (2) acres and type of harvest prescription and placement of old-growth harvest, by WAA; (3) access to subsistence resources in terms of miles of open and closed roads and (4) percentage of deer harvested by user type. [POW LLA 12.17 at 2].

This proposed level of analysis is inadequate. 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.”³⁹ Congress specifically 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.⁴⁰

This means that the Forest Service must take reasonable steps to ensure not just viable, but harvestable levels of wildlife populations, in particular - deer. The EIS must account for

³⁶ Exh. INV 1. Beyond Toxics. 2013. Oregon's Industrial Forests and Herbicide Use: A Case Study of Risk to People, Drinking Water and Salmon.

³⁷ See *id.* Appx. E.

³⁸ *Id.*

³⁹ 16 U.S.C. § 3112(1).

⁴⁰ Senate Committee on Energy and Natural Resources, Alaska National Interest Lands Conservation Act, S.Rep. No. 413, 96th Cong., 1st Sess. 233 (1979), reprinted in 1979 U.S.C.C.A.N. 5070, 5177.

ANILCA's emphasis on special consideration for subsistence resources, the uncertainty about climate change impacts on wildlife populations, and the extensive cumulative high grading of prime winter deer habitat on all land ownerships in the project area and adjacent areas.

ANILCA requires that agencies take "reasonable steps ... to minimize adverse impacts upon subsistence uses and resources." 16 U.S.C. § 3120(a)(3). Forest Plan guidelines direct that management "accommodate identified subsistence uses" and "[s]eek to maintain abundance and distribution of subsistence resources necessary to meet subsistence user needs." [TLMP at 4-66]. Those management measures could include: "a) Implementing planned project; b) Canceling all or part of the planned project; c) Substituting another site for the project and prepare another environmental analysis if the change is significant; and/or d) Implementing appropriate mitigation measures." *Id.* The Forest Service must consider canceling the project in order to comply with ANILCA.

The DEIS needs to provide a complete Section 810 analysis as required by ANILCA and take a hard look at impacts to subsistence uses of deer. We also request that a subsistence hearing be held regarding this project. It is beyond dispute the effects of the project will present a significant restriction of subsistence uses of deer. It is not sufficient to generally provide deer habitat across the forest. ANILCA requires that wildlife resources in customary and traditional use areas must be available in close proximity to rural residents. We request a comprehensive Section 810 evaluation that conforms to guidance contained in the Forest Service Handbook. FSH 2090.23, Ch. 10. That guidance requires three separate evaluations. A "subsistence report" is not a substitute for the Section 810 evaluation. The Forest Service must consider: (1) reductions in subsistence uses due to direct resource impacts, adverse habitat impacts and competition; (2) reductions in subsistence uses due to changes in the availability of fish and wildlife resources caused by an alteration in migration or location; and (3) a reduction in subsistence uses due to access limitations.

The Section 810 evaluation needs to consider adequate alternatives for implementing the proposed action, which must be reasonable, physically and technically possible and economically feasible.⁴¹ Action alternatives will involve incursions into key winter deer refugia and elevational migration corridors in the project area. The FEIS should discuss how to mitigate those impacts as part of implementing this project. The proposed second growth treatments do not adequately mitigate (if at all) the proposed removal of winter deer habitat and the Section 810 evaluation must therefore document consideration by the Forest Service of ways to implement the proposed action that avoid winter deer habitat and minimize or eliminate clearcutting. Under these circumstances, as discussed in Section II., *supra*, the Forest Service must develop downscaled timber volume alternatives.

C. Timber Supply and Timber Sale Economics

The Draft Issue Statement proposes that the EIS would assess the quantity and quality of old and second growth volume offered and operational costs that "would affect local operators' ability to contribute to the local economy." [POW LLA 12.17 at 2]. The Draft Issue Statement explains that:

Flexibility over the life of the project would provide for optimizing volume and net return on timber harvest and the ability to offer economically viable timber sales across fluctuating market conditions. The amount of timber available for sale from national forests and a stable supply affects local employment and revenues. It is also critical to match the size of sales offered to meet the various needs of industry operators. Operators need economical timber to stay in business and the loss of those operators would have an adverse impact on local economies. [POW LLA 12.17 at 2-3].

⁴¹ *Id.*

Defenders submits that the Forest Service needs to revisit these assumptions. There is no need to maintain current infrastructure or labor in a market-based economy. 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 – that is, reducing sediment inputs into streams from the poorly maintained transportation system and repairing red pipes – are road maintenance projects for which there is existing local labor and infrastructure that exists independently of timber workers.

In particular, the Forest Service needs to consider whether the federal government can provide a better return from the public expenditures made by local and national taxpayers for POW land management activities. The need statement, being heavily skewed to the timber industry's interests, aims to continue 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 its minor mill production, and also aims to subsidize the logging of recovering forests. This in turn unreasonably and illegally skews the proposed alternatives hard to one side.

1. There is no need for a large scale forest “products” industry on POW

The Forest Service identifies a “need” to provide forest products for the purpose of contributing to economic viability on the island. But the planning record for the 2016 LRMP Amendment shows a broad decline in the U.S. share of the global timber economy – a decline that reflects “powerful, on-going changes in the role the U.S. plays in global markets.”⁴² The competitive disadvantage is particularly significant for southeast Alaska timber.⁴³ The Pacific Northwest Research Station's own publications verify these significant downward trends.⁴⁴

Defenders objected to old growth cut levels established in the 2016 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.⁴⁵ The Tongass National Forest's own mill production reports identify a “major reconfiguration” occurred in 2008 in the forest products sector nationally, and show that mill production and employment have dropped in half since the 2008 TLMP amendment.⁴⁶

Despite the Forest Service's myopic focus on supplying timber for Viking at a massive public cost, southeast Alaska has experienced a market-based transition away from federal timber dependency and toward a more diversified and sustainable economy. Over the past decade, timber employment has decreased by nearly 90%, and the industry is smaller than it was over a century ago.⁴⁷ Employment levels approached nearly 500 annualized jobs prior to the TLMP Amendment, and have since dropped by half. [2016 LRMP FEIS at 3-485, Table 3.22-4]. Timber removals from all land ownerships in southeast Alaska at best provide 3% of

⁴² See 2016 LRMP FEIS PR Folder 763_02_000084 (Niemi 2016, Socioeconomic Comments on Timber Demand at 12.

⁴³ *Id.* at 14.

⁴⁴ See 2016 LRMP FEIS PR Folder 763_02_000088, documents PNW RB-265 (Zhou 2013)) and PNW RB-266.

⁴⁵ See 2016 LRMP FEIS PR Folder 763_02_000084 (Niemi 2016, Socioeconomic Comments on Timber Demand at 15-16.

⁴⁶ See 2016 LRMP FEIS PR 769_05_000024 at 6 (showing mill production of 31.7 MMBF in 2007 and 23.7 MMBF in 2008); 769_05_000025 at 8 (showing mill production of 13.4 MMBF in 2009 and 15.8 MMBF in 20100; PR 769_05_000036 at 3 (showing recent drops in mill production and employment).

⁴⁷ See 2016 LRMP FEIS PR 769_05_000340 at 10 (Southeast Conference 2014).

total resource-based employment in the region and 1% of total regional employment. [*Id.* at 3-481, Table 3.22-3]. *Federal* timber was responsible for a fraction of a percent (0.2%) of total regional employment in 2013. [*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)]. Timber worker earnings are less than 1% of total employment related earnings in the region.⁴⁸ 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.⁴⁹

The planning record for the recent Forest Plan Amendment shows that commercial fishing, the visitor industry and the maritime sector are the “bright points in our economy.”⁵⁰ These sectors have contributed to an overall growth in employment, population and wages following a market-based recovery from past dependence on the timber industry.⁵¹ Overall, employment, total income, per capita income and per-capita business earnings have increased in the region since 2000. [2016 LRMP FEIS at 3-442, Table 3-279].

Over the past decade, the Prince of Wales Island area has redefined its economy around small proprietorships in specialty wood mills, fishing and seafood and hospitality businesses.⁵² Population levels have rebounded over the past five years.⁵³ Nature-based tourism generated more than \$30 million in gross revenues to Prince of Wales Island in 2007 – mostly from sport fishing.⁵⁴ There were population increases throughout the region including in Ketchikan and Wrangell and nearly all Prince of Wales Island communities from 2010 – 2013.⁵⁵

In other words, the POW LLA Project will do significant harm to the economic viability of southeast Alaska communities in general and further inhibit market-based economic growth on Prince of Wales Island by perpetuating a federal land use policy that has been unsuccessful for decades and inhibits the natural, market-based transition toward other economic models with proven recent success in the region. 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.

2. Large scale timber projects do not provide significant local employment

The Forest Service wrongly *assumes* that a project aimed primarily at supplying Viking Lumber with timber from federal lands would provide local employment benefits. Here, the timber sale purpose and need for the POW LLA Project aims exclusively at providing a timber supply for Viking Lumber. While the stated need for the recent LRMP Amendment, for example, was to provide opportunities for southeast Alaska residents in the timber “industry,” the Forest Service has never recognized that a very small number of actual southeast Alaskans work in the industry, nor does it show how Viking Lumber would provide significant local employment. Any further development of this project needs to include an

⁴⁸ *Id.* at 3.

⁴⁹ *Id.* at 4, 6.

⁵⁰ See 2016 LRMP FEIS PR 769_05_000340 at 1 (Southeast Conference 2014).

⁵¹ *Id.* at 2-3.

⁵² See 2016 LRMP FEIS PR Folder 769_02_000088, Exh. 18 (Sitnews 2012; Exh. 113 (Economic Trends 2012)).

⁵³ *Id.*

⁵⁴ Big Thorne FEIS at 3-454.

⁵⁵ See 2016 LRMP FEIS PR 769_05_000340 at 5 (Southeast Conference 2014).

analysis that takes a hard look at the purported “workforce” that would receive employment resulting from the project.

Nowhere in the 2016 LRMP FEIS did the Forest Service explicitly define a “viable timber industry.” As defined in the dictionary, an “industry” refers to “systematic labor especially for some useful purpose or the creation of something of value” or a “department or branch of a craft, art, business or manufacture; especially one that employs a large personnel or capital especially in manufacturing.”⁵⁶ It is beyond dispute that there is very little timber manufacturing employment in the region. [2016 LRMP FEIS at 3-485, Table 3.22-4].

The 2016 LRMP timber goals and objectives imply that the plan amendment would 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.” 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.”

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. [2016 LRMP FEIS, Appx. H at H-4-5]. The authorization to export 50 percent of the sawlog volume operates as a floor rather than a ceiling because the Forest Service then allows Viking and Alcan exceed the 50 percent floor on a case-by-case basis. [*Id.*, Appx. I at I-169]. Thus it seems clear that the federal timber sale program primarily benefits corporations outside the region rather than the southeast Alaska economy, while residents of the region are left with very consequential resource damage and environmental impacts and reduced economic outputs from the commercial fishing and tourism economic sectors. It is unreasonable and arbitrary to focus management of the nation’s third largest island on satisfying the perceived needs of one timber operator.

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. [2016 LRMP FEIS at 3-492-3-493, Tables 3.22-8, 3.22-9]. In general, Alcan and Viking have exported nearly all the cedar and half the hemlock and spruce sawlogs as unprocessed raw logs since the Alaska Region developed and subsequently liberalized its export policy. Indeed, between 2008 and 2009 the ratio of federally supported mill jobs per MMBF of federal timber dropped to nearly one-half. [See *id.* at 3-486-3-488, Tables 3.22-4, 3.22-5, 3.22-6]. Overall, the 2016 LRMP FEIS shows a clear decline in actual “industry”/mill employment relative to federal timber removals over time, with pre-export policy federal timber (2002 – 2007) supporting 2.2 processing jobs per MMBF, and post-liberalized export policy federal timber (2009 – 2014) supporting 1.5 processing jobs per MMBF. [*Id.*]. This job transfer to foreign timber processors may be worse under the Amendment, but the Forest Service has never confronted this issue – which should be critical to ascertaining whether the POW LLA Project would meet even the very narrow need of providing a forest products industry that provides jobs for southeast Alaskans.

Also, there are low levels of local employment in logging, raising further questions about whether the POW LLA Project would support jobs for southeast Alaska residents. Non-resident employment accounts for a significant amount of jobs in southeast Alaska’s resource-dependent sectors. [2016 LRMP FEIS at 3-483]. The number of actual timber workers is so small that reports by the Alaska Department of Labor lump logging jobs with

⁵⁶ www.merriam-webster.com/dictionary/industry

other natural resource-based job categories, such as fishing, mining and agriculture.⁵⁷ The LRMP FEIS record 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.⁵⁸ Since the 2008 TLMP Amendment, federal timber has supported 110 annualized jobs. [2016 LRMP FEIS at 3-485, Table 3.22-4]. Are half of those jobs then actually held by reality TV show “Axe Men” from Oregon? Federal timber provides such a small amount of jobs that it would not be difficult to answer this question, but the Forest Service ignores it.

Further, there appears to be little workforce in the jobs the Forest Service seeks to create. 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.”⁵⁹ Similarly, another federally and state funded timber industry group, the “Tongass Transition Collaborative” also reports the “graying workforce” and suggests the need to develop a younger workforce.⁶⁰ The Tongass Transition Collaborative suggests that taxpayers should finance this training program through federal and state funding from the Challenge Cost Share Agreement.⁶¹ But the industry itself believes that young people can’t or won’t do physical work, and the Southeast Conference recognizes that “[l]ogging has become a socially unacceptably business to be in.”⁶² Thus it appears the Tongass Transition Collaborative just wants to waste taxpayer funds on jobs programs that try to train people for jobs that nobody actually wants to do. Additionally, how many loggers in existence actually learned their jobs from publicly funded logging classes?

The NEPA analysis for the POW LLA Project needs to confront significant economic issues and changing workforce needs in order to assess whether a purpose and need aimed primarily at providing a timber supply Viking Lumber, its de facto parent corporation in southwest Washington, and Pacific Rim processors would meet the stated local employment and economic viability need.

3. The Forest Service’s export policy should be a significant issue in the timber economics section

We submit that the most significant issue in the timber economics section of the DEIS should be local utilization and elimination of the export policy, for the small local demand there is an ample supply of wood. The DEIS should provide a realistic assessment of the timber volumes by species and grade that are likely to be transshipped or exported as a consequence of the project’s alternatives.

Nearly half the value of Tongass timber projects derives from cedar. The DEIS should provide information regarding the respective values of tree species utilized locally versus those exported or transshipped without primary processing. This information is also important so that the public can assess how much of the public investment in this project

⁵⁷ 2016 LRMP FEIS PR 769_05_000344; -000314; -000318; - 000319 (Alaska Department of Labor data).

⁵⁸ 2016 LRMP FEIS 769_05_000329 at 16-18, 22 (ADOL 2015).

⁵⁹ Southeast Conference. 2016. Southeast Alaska 2020 Economic Plan at 26.

⁶⁰ Campen, S. & D. Portner. 2016. POWLAT_2016_Tongass Young Growth Symposium Post-meeting briefing.

⁶¹ Campen, S. & D. Portner. 2016. POWLAT_2016_Tongass Young Growth Symposium Post-meeting briefing.

⁶² Southeast Conference. 2016. Southeast Alaska 2020 Economic Plan at 26.

will be returned to the regional economy. If Viking Lumber Company brings in non-local loggers, and then ships the high value cedar to its parent corporation in Washington State and low value logs to China, southeast Alaska loses fish habitat, tourism opportunities and wildlife and gets nothing in return.

The Forest Service should not attempt this analysis until it conducts a comprehensive review of Viking's timber disposal practices to determine how much high value cedar, for example, ends up in Aberdeen, Washington at the Dahlstrom family's mill. This is a significant issue because Viking may be in large part a sham corporation processing small amounts of Sitka spruce when the real motivation is to supply what is, quite literally, the parent corporation's outside mill.

Recent NEPA documentation has displayed a range of potential local employment impacts and direct income levels under the assumption that there could be local sawmill utilization of cedar. That practice is misleading and we request that this DEIS provide employment and income tables that reflect the reality of raw log export and transshipment. This information is critical so that the public can evaluate the extent to which this project generates local wood processing employment.

4. The DEIS needs to evaluate whether AMHT and other landowners can provide an adequate supply for Viking, obviating the “need” to further degrade public lands

The Forest Service needs to re-evaluate the economics and scale of this project in light of the AMHT land exchange and sales available from other timber agencies, such as the State of Alaska's Division of Forestry.⁶³ The DEIS should disclose volumes of timber available from all other landowners. In our previous scoping comments we questioned the perceived “need” to provide national forest timber for the purpose of contributing to economic viability on the island.

The planning record for the 2016 LRMP Amendment showed 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.”⁶⁴ The competitive disadvantage is particularly significant for southeast Alaska timber.⁶⁵ The Pacific Northwest Research Station's own publications verify these significant downward trends.⁶⁶ The timber industry in southeast Alaska has become very small since the 2008 TLMP Amendment. There have been no new sawmills established since 2000 and the overall number of sawmills declined by half, to ten active operations since 2000. [2016 LRMP FEIS at 3-487]. The Forest Service's mill capacity reports show that the industry has declined by significantly more than half since 2008 in terms of both production and employment.⁶⁷ Indeed, the forest products sector as a whole experienced a “major reconfiguration” in 2008 and local industry production dropped from 31.7 MMBF in 2007 to 13.4 MMBF in 2009.⁶⁸

Table 3.22-6 in the 2016 LRMP FEIS displays timber industry activity in 2013. Federal timber provided 13.8 MMBF of a total 17.6 MMBF of the locally processed timber in 2013. [2016 LRMP FEIS at 3-488]. Nine of the ten sawmills essentially comprise a very small

⁶³ See e.g. Exh. TIM 2 (DOF 2017).

⁶⁴ See 2016 LRMP FEIS PR Folder 763_02_000084 (Niemi 2016, Socioeconomic Comments on Timber Demand at 12).

⁶⁵ *Id.* at 14.

⁶⁶ See 2016 LRMP FEIS PR Folder 763_02_000088, documents PNW RB-265 (Zhou 2013)) and PNW RB-266.

⁶⁷ See 2016 LRMP FEIS PR 765_05_000336 at 3 (Parrent 2014).

⁶⁸ See 2016 LRMP FEIS PR 765-05-000024 at 6, 14 (Parrent 2008).

cottage industry and processed a total of 2.6 MMBF in 2013. [*Id.*, Table 3.22-6]. Viking processed only 11.5 MMBF of federal timber in 2013, and marginally processed another 3.5MMBF into cants. [*Id.*; see also 2016 LRMP FEIS PR 769_05_000336 at 6, 8 (Parrent 2014)].

Thus, the range of demand for federal and non-federal timber for use by *actual industry* in the region is well below the Forest Service's wish list. [2016 LRMP FEIS at 3-492, Table 3.22-8]. In other words, the DEIS for the POW LLA project needs to assess whether the AMHT, DOF and other timber agencies would provide a realistic supply for Viking Lumber and enable the Forest Service to scrap this project and truly "compensate" for the habitat damage done by other agencies.

D. Watershed Function

The Issue Statement recognizes that logging and road building activities in watersheds impacted by past timber activities may adversely affect water quality and fish habitat. [POW LLA 12.17 at 3]. It notes that the project area includes a number of streams with high fisheries values. [*Id.* at 3]. Of particular concern is the statement that red pipes "may" be replaced. [*Id.* at 8]. Why "may?" Any Forest Service action to improve watershed function "must" prioritize fish passage improvements by replacing culverts.

We thus reiterate that the DEIS must consider a mitigation measure that restores fish passage in the project area. 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. [Exh. FSH 6]. 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." [Exh. WL 6 at 14 - 16]. 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.

Additionally, the Forest Service should address adverse impacts to estuarine habitat. The Forest Service intends to use 15 existing LTFs and reconstruct 6 new LTFs for Viking Lumber under Alternatives 2 and 3, and use 21 existing LTFs and construct 22 LTFs for Viking Lumber under Alternative 4. [POW LLA 12.17 at 22]. 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 water bodies.⁶⁹ Five of these LTFs are on Prince of Wales Island.⁷⁰ Fortunately, a significant

⁶⁹ Alaska Division of Environmental Conservation. __. PUBLIC NOTICE DRAFT Integrated Water Quality Monitoring and Assessment Report at 41-50, 80.

⁷⁰ *Id.* at 45, 49-50, 80.

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.⁷¹

Defenders has significant concerns about the plan to expand the number of LTFs on Prince of Wales Island 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 infrastructure presents a significant concern and requires detailed NEPA analysis. [40 C.F.R. § 1508.18].

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.⁷²

For these and other reasons related to water quality degradation and impacts to the region's more important economic sectors, the proposed LRMP provides that "[w]here feasible, preference should be given to onshore storage and barging of logs." [LRMP, Appx. G at G-9]. 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. [See PR 769_05_000248 (NMFS 2011)(recommending the use of "land-based sites where possible, with the goal of eliminating in-water storage of logs); Exh. LTF 9 at 2 (NMFS 2006)(recommending that the EPA not issue a general permit for in-water log storage in southeast Alaska because adverse impacts to marine habitat)].

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." [LRMP at 4-85]. 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." [TLMP, Appx. G at G-2]. However, these guidelines are too discretionary, and readily waived every time Viking Lumber whines that barging is too expensive.

⁷¹ *Id.* at 41-50.

⁷² See e.g. Exh. LTF 3, Washington Dept. of Fish and Wildlife. 2008. Management Recommendations for Washington's Priority Habitats and Species: Dungeness Crab; Exh. LTF 7, 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; Exh. LTF 12, 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; Exh. LTF 10, Morado, O'Clair & Sparks. 1988. Preliminary Study of Idiopathic lesions in the Dungeness crab, *Cancer magister* from Rowan Bay, Alaska; Exh. LTF 11, 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; Exh. LTF 6, 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.

The Forest Service's programmatic analyses fail to recognize that Viking Lumber and Alcan currently prefer to use log rafts rather than barges because it is cheaper to impose the external costs of marine habitat degradation on other resource users. Tetra Tech's 2016 LRMP DEIS, prepared in Bothell, Washington, mistakenly assumes that log rafting would be minimal and relied on barging to reduce adverse impacts to benthic habitat and organisms. Tetra Tech is either ignorant or lying. These assumptions are wrong and in conflict with current marine log transportation trends in the region. Thus it would be unreasonable to rely on programmatic analysis for a project that could raft hundreds of millions of board feet.

The Forest Service needs to identify potential or known locations of new LTFs, 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 conditions and benthic pollution that is toxic to many marine organisms. [Exh. LTF 9 at 2 (NMFS 2006)].

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. NEPA requires that agencies shall consider cumulative actions in determining the scope of environmental impact statements, meaning actions "which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." [40 C.F.R. § 1508.25]. This analysis requires "some quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Klamath-Siskiyou v. BLM*, 387 F.3d 989, 993-94 (9th Cir. 2004)(citations omitted). Thus, "[t]he analysis 'must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present and future projects.'" [*Id.*]

The DEIS 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." [16 U.S.C. § 1855(b)(2); 50 C.F.R. § 600.920(j)(1)]. Further, the level of detail in an EFH should reflect the best available science, and provide an analysis of adverse effects and proposed mitigation. [50 C.F.R. § 600.920 (d), (e)(3)]. 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. [50 C.F.R. § 600.920 (d), (e)(3)].

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. [40 C.F.R. § 1502.16(h); *Oregon Natural Resources Council v. Marsh*, 382 F.2d 1489 (9th 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)]. The Forest Service needs to evaluate how it will minimize the effects of in-water log storage or clean up the mess afterwards. [See, e.g. PR 769_05_000248]. Timber operators in British Columbia employ site deactivation procedures in order to minimize long-term impacts and conduct baseline assessments prior to development. [Exh. LTF 2 (Triton Consultants); Exh. 78 (DFO)]. The Washington Department of Fish and Wildlife recommends replanting marine vegetation and removing woody debris in order to mitigate LTF effects on crab. [Exh. LTF 3 (WDFW 2008)].

In sum, the DEIS must provide detailed information about existing and 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.

E. Wildlife habitat and connectivity

The Issue Statement states that the project would affect remaining old-growth on the island, particularly high volume and large tree old-growth and asserts that activities in young growth stands would improve wildlife habitat. [POW LLA 12.17 at 3]. It notes that "a primary concern in the project area is to maintain lower elevation, productive old-growth forested habitats, improve wildlife habitat in young-growth stands, and reduce densities and fragmentation that negatively affect wildlife species. [Id. at 3]. As an initial matter we request that the DEIS analyze expansion of and improvements to the island's old-growth reserve network – a task of significant urgency given the recent changes in landownership caused by the Sealaska legislation and the land exchange with AMHT. We also believe that the Forest Service needs to reconsider its approach to second growth logging and we request that the analysis carefully assess the value of allowing those forest to recover to the point of attaining some old-growth habitat features of value for wildlife.

With respect to wildlife, our August 7, 2017 comments in response to the second scoping period for the POW LLA project are all the more important now because of the scale-up of the project in this present scoping period. Those comments are detailed, so for brevity here we refer you to section V of those comments. Additional discussion is provided below.

1. The cumulative effects of non-federal logging heighten the need to downscale federal logging

All legislative action needed to complete the Alaska Mental Health Trust (AMHT) Land Exchange occurred in 2017.⁷³ The exchange will convey over 12,000 acres of National Forest lands on Prince of Wales Island to the AMHT.⁷⁴ The Trust Land Office issued its Best Interest Decision for the Naukati Exchange Timber Sale, which would provide Viking Lumber with 100 MMBF of old growth timber pending finalization of the exchange by May 2018.⁷⁵

Timber agencies must consider the cumulative impacts of the pending removals, from other activities, of the of millions of board feet of timber on many thousands of acres of forestland. [*Blue Mountains Biodiversity Project*, 161 F.3d at 1251; *Klamath Siskiyou Wildlands v. BLM*, 387 F.3d 989, 994-95 (9th Cir. 2004)]. A cumulative effects analysis must provide "some quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Klamath-Siskiyou v. BLM*, 387 F.3d 989, 993-94 (9th Cir. 2004)(citations omitted). Thus, "[t]he analysis 'must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present and future projects.'" [*Id.*] The need for a detailed cumulative effects analysis is even more compelling when the impact of future development is greater than the impact of the analyzed project

⁷³ https://mhtrustland.org/index.php/land/land_exchange/

⁷⁴ *Id.*

⁷⁵ Exh. TIM 1, Alaska Mental Health Trust Land Office. 2017. Best Interest Decision, Naukati Exchange Timber Sale. MHT 9100901.

itself, and “the potential for ... serious cumulative impacts is apparent.” [*Te-Moak Tribe v. U.S. DOI*, 608 F.3d 592, 605-606 (9th Cir. 2010)].

The 2016 Forest Plan FEIS briefly explained the Forest Service’s assumption about the level of non-federal logging, as used in quantifying the total remaining POG over time. [Forest Plan FEIS at 3-216]. It listed potential non-federal logging projects, including the Alaska Mental Health Trust Land Exchange in an appendix. [FEIS, Vol. II, Appx. C]. The Forest Service recognized that the exchange would remove conservation areas and undermine the Conservation Strategy. [Forest Plan FEIS at 3-286]. *The Forest Plan FEIS indicated that the Forest Service would somehow “compensate” for the loss of protected wildlife habitat. [Id.]. But now, instead, the Forest Service would accelerate and intensify old-growth and second-growth logging on the island. How can this “compensate” for lost habitat?* The DEIS for this project must carefully address the critical issue of what cumulative effects will occur, and in also consider the additional amount of recovering forest that private landowners would prevent from fully recovering to the attainment of old-growth characteristics.

The potential for serious cumulative impacts arising from federal and non-federal logging is apparent. For example, the 2015 Kosciusko Vegetation Management and Watershed Improvement EA recognized that on Kosciusko Island, “[t]here is a high likelihood that substantial changes to forest structure would occur in the project area as a result of cumulative large-scale State and private timber harvest within the next 10 years.” [Forest Service 2015 at 38]. Federal logging combined with state and University of Alaska clearcuts and Sealaska’s land would result in “the potential for the University, State, Forest Service and Sealaska harvest areas to essentially coalesce into one expanse of homogenous stand structure approaching 12,000 acres in size,” resulting in a scarcity of advanced forest structure over a large portion of the project area. [Id.]. This scenario has the potential to recur on a similar scale on POW due to the scale of foreseeable Sealaska and Alaska Mental Health Trust logging.

2. The DEIS must address uncertainties and risks associated with logging second growth in protected areas

We reiterate the point from our previous scoping comments objecting to POW LLA planning for second-growth logging in conservation areas. LRMP plan components authorize logging in old-growth habitat, riparian management areas and the beach fringe. [LRMP at 5-6]. The LRMP assumes that logging will “improve or maintain fish and wildlife habitat by accelerating old-growth characteristics.” [Id.]. 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.

The Forest Service’s plan for logging recovering forests on the island are, at best, highly experimental with regard to potential impacts on forest resources. The Forest Service must consider uncertain risks associated with thinning or similar treatments given the uncertainty about impacts to wildlife and forest structure and significant uncertainties regarding the effectiveness of the treatments. [*Sierra Club v. Bosworth*, 510 F.3d 1016, 1031-32 (9th Cir. 2007)]. In *Ecology Center v. Austin*, the Forest Service proposed commercial thinning and salvage logging projects in response to fire damage in portions of national forest land in Montana. [*Ecology Center v. Austin*, 430 F.3d 1057, 1061 (9th Cir. 2005)]. The Forest Service had concluded that the treatments would be beneficial to dependent species. [Id. at 1064]. However, the court noted that the agency “had not yet taken the time to test its theory with any ‘on the ground analysis’.” [Id.]. The court explained that:

Just as it would be arbitrary and capricious for a pharmaceutical company to market a drug to the general population without first conducting a clinical trial to verify that the drug is safe and effective, it is arbitrary and capricious for the Forest Service to irreversibly “treat” more and more old-growth forest without first determining that such treatment is safe and effective for dependent species. This is not a case in which the Forest Service is asking for the opportunity to verify its theory of the benefits of old-growth treatment. Rather, the Service is asking us to grant it the license to continue treating old-growth forests while excusing it from ever having to verify that such treatment is not harmful. [430 F.3d at 1064].

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 the POW LLA scoping documents. While the Forest Service has recently initiated research regarding second-growth logging, it has not published the results, and there is a need for “much more” research. [Exh. WL 10 at 1-2, 8 (Cole 2010)]. The primary silvicultural studies reflect an historical focus on thinning treatments for tree growth and wood product quality rather than wildlife benefits. [TLMP AR# 1335 (McClellan 2005)⁷⁶; PR 769_05_000506; Exh. WL 9 at 39 (PNW 2002); Exh. WL 8 at 3 (Alaback 2010)(explaining that thinning can be effective in improving wildlife habitat for up to a decade, but a key limitation on its effectiveness “is its relatively short longevity”)]. Even in the Pacific Northwest, “[t]here is little research or operational experience, ... to validate successful outcomes of new silvicultural approaches being proposed and implemented for managing young-growth stands.” [Exh. WL 9 at 39 (PNW 2002)]. Moreover, ten acre patch clearcutting does not mimic natural old-growth forest conditions where wind disturbance or small patches of tree mortality create canopy gaps, [Exh. WL 8 at 3 (Alaback 2010)], rather, clearcutting is a “major disturbance.” [Exh. WL 9 at 74 (PNW 2002)].

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.” [TLMP FEIS at 3-330]. The Forest Service identified considerable experience with pre-commercial thinning as the “only intermediate treatment commonly used on the Tongass.” [*Id.* at 3-329, 3-342]. There was “much less experience with other young-growth management techniques, such as pruning and commercial thinning.” [*Id.*]. Thus, silvicultural prescriptions for recovering second-growth forests other than pre-commercial thinning were described as “experiments.” [*Id.* at 3-330].

Pacific Northwest forest managers have moved forward with new approaches that seek to mimic characteristics of older stands, but even then there is considerable uncertainty:

No young-growth stands, however, have been managed for an extended period under these proposed alternative regimes. Thus, estimates of relative costs and benefits are based on major extrapolations from limited data. In addition, no experimentation has focused on how various factors (i.e., understory and overstory species composition, vertical and horizontal spatial distribution of trees, snags, and coarse woody debris (CWD) within a stand, and age-size distribution of trees) independently affect plant and animal populations, or how altering these factors will impact tree growth, stand differentiation, habitat functions, or the production of forest products. [Exh. WL 9 at 39 (PNW 2002)].

One of the early and still most important reviews of forest succession in southeast Alaska noted that “there are no data at this time to suggest that silvicultural thinnings ... will measurably increase either the diversity or productivity of understory vegetation over that typically found in old-growth forests.” [Exh. WL 11 at 3 (Alaback 1984)]. The record shows

⁷⁶ This is the document number from the 2008 TLMP Amendment planning record.

that research related to wildlife habitat improvements associated with second growth treatments focuses on less destructive prescriptions. For example, single-tree selection can improve forage availability and summer habitat conditions relative to untreated stands in Southeast Alaska second-growth forests. [Exh. WL 9 (PNW 2002)]. Implicit in their recommendation for conservation of old-growth for old-growth dependent species is the need, given the existing and prospective deficit of old-growth, for forest succession past the stem exclusion phase.

Importantly, however, more recent research shows that "improvements" associated with many of the thinning prescriptions may not be statistically significant, and confirms previous studies showing "only transient effects of thinning treatments on wildlife habitat." [2016 LRMP PR 0387 at 6 (Alaback 2010)]. Efforts to evaluate measures to improve wildlife habitat in Southeast Alaska's recovering forests should instead consider the creation of small, artificial canopy gaps up to a half acre in size – not ten acre clearcuts. [Exh. WL 7 at 2-3 (Ott 2002)]. The artificial canopy gaps would likely result in stands "more similar to the patchy forest conditions that characterize old-growth forests. [*Id.* at 4]. This type of prescription would be much more likely to achieve wildlife objectives than an untested experiment that would maintain large areas in stem exclusion:

For typical gap treatments, where as little as 5-10% of the area of the stand is treated, we estimate there will still be a 20-50% increase in deer carrying capacity. In theory as much as a 4 fold increase in deer carrying capacity could be achieved in the winter, or a doubling of summer carrying capacity if canopy gaps were increased to 50% of the stand area. In addition to these significant gains in habitat quality, canopy gaps would be expected to also be an important means to promote connectivity, dispersal habitat and to retain pockets of understory diversity that could aid reestablishment of diversity when stands are scheduled for other treatments such as commercial thinning.

...From an ecological standpoint there is much data and theory that supports the idea that forest biodiversity is generally enhanced by increasing forest heterogeneity as we done with creation of canopy gaps [citations omitted]. It makes sense that disturbances which create irregular openings are generally going to create a variety of ecological conditions which will provide habitat for a wider range of species than what would occur with more homogenous forest conditions (or more homogenous disturbances). There is considerable evidence that canopy gap formation is a major driver of ecological diversity in temperate rainforests in general. It should not be surprising then, that by creating small canopy openings, similar in size to what occurs in old-growth forests one can enhance habitat diversity following homogeneous disturbances such as clearcut logging. [Exh. WL 8 (Alaback 2010)].

Further, the length of the rotation is also important to consider when thinning for wildlife benefits because those full benefits may not accrue for over a century. For example, snow interception by the forest overstory is critically important for the survival of Sitka black-tailed deer. [Exh. 106 at 31 (Kirchhoff 1987)].

Silvicultural treatments that promote an uneven height distribution, broad crowns, and large lateral limb development should improve the snow interception ability of individual trees. Over the short term, thinning 2nd growth will result in a more open canopy, increased snow accumulation, and a decline in winter habitat value for deer. However, over long time periods (>100 years), repeated thinning in managed stands may promote a multilayered canopy with large, dominant trees, similar to old-growth in function and appearance. Silvicultural treatments to improve snow interception capacity, therefore, should be directed at stands on productive sites that are scheduled for rotations >150 years. [*Id.*]

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. [Exh. WL 12 at 1 (Alaback et al 2014)]. 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.” [Id.]. They opposed the changes, particularly in the absence of any review by the scientific community. [Id. at 2]. 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. [Exh. WL 13 at 2 (Kirchhoff 2015)]. Kirchhoff further opined that the TAC’s 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. [Id. at 6].

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, or the rationale for 10 acre clearcuts in the beach fringe. [Id. at 7-8]. Then, 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].” [Exh. WL 14 at 1]. 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.” [Exh. WL 14 (Alaback et al. 2015)].

It is thus clear that the Forest Service has never studied the anticipated effects of these treatments in terms of mitigating impacts to wildlife or forest structure. The POW LLA is thus a plan “to act first and study later” despite uncertainty as to “whether the measures are sufficiently related to the effects they are designed to cure.” [See, e.g. *National Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, at 734 (9th Cir. 2001)](identifying “a paucity of analytic data to support the Park Service’s conclusion that the mitigation measures would be adequate in light of the potential environmental harms”).

Thus, the DEIS must address the risks and significant adverse environmental impacts associated with the proposed strategy of clearcutting followed by reliance on second-growth in those clearcuts serving as a mitigation measure. There is no supporting literature for the efficacy of that reliance – a result that courts have determined to be unacceptable when a project poses, as here, a long-term risk caused by preventing forest recovery. [See *National Audubon Society v. Hoffman*, 917 F.Supp. 280, 289 (D. Vt. 1995)](finding a proposed mitigation measure “particularly troublesome” given the lack of support for its effectiveness and adverse project impacts on wildlife)].

3. The Forest Service needs to reconsider the scale of second-growth removals to allow for recovery to old-growth forest characteristics

There are four stages of forest succession in previously clearcut areas in southeast Alaska forests (in approximate years): (1) stand initiation (1 – 25 years); (2) stem exclusion (25 – 150 years); (3) understory reinitiation (150 – 250 years); and old-growth forest (>250 years). [Exh. WL 11 at 5-8 (Alaback 1984)]. 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, the POW LLA would delay this recovery process so that clearcut second-growth forests would require 50 to 60 years to reach the same stand conditions present today, and another 40 to 50 years to recover into understory re-initiation structure. This may result in a range of rotation ages from 100 to 110 years old.

This rotation schedule is inconsistent with the need to provide long-term understory forage production and habitat quality for wildlife. One of the most important and early reviews of forest succession in southeast Alaska noted that “there are no data at this time to suggest that ... timber rotations less than 200 years will measurably increase either the diversity or productivity of understory vegetation over that typically found in old-growth forests.” [*Id.* at PDF 3 (Alaback 1984)]. In other words, all of the alternatives, over the long-term, will result in federal lands remaining at the stem exclusion stage or lower. Given this impact, the scale of recovering forest removals, particularly in light of the proportion of private and state logging in the planning area, it was unreasonable to forgo a detailed analysis of the risk of creating a long-term habitat deficit:

In Southeast Alaska there are many specific ecological factors which explain why logging can have such a negative impact on key wildlife species in this region. Most logging has occurred in low-elevation valley bottoms (<1000') which provide critical habitat for wildlife, especially during times of heavy snow cover. Removal of old-growth forest and its replacement by second-growth forest affects winter habitat for deer in two specific ways: loss of snow shedding capability of complex old-growth canopies (effects mobility and foraging efficiency of deer) and loss of a productive understory plant community (provides forage quality and quantity). Although clearcut harvesting does produce an immediate flush of high quality understory biomass, it typically lasts only 10-25 years, and is not available to deer during periods of heavy snow. The greatest impact occurs three or more decades after logging, during the “stem exclusion” phase of forest stand development, when the densely stocked and rapidly growing young conifers shade out most of the important plant species for deer and other wildlife species. The stem exclusion phase lasts for as much as 150-200 years so can create a long-lasting deficit of wildlife habitat for a given watershed or region, unless an effective restoration strategy can be developed. [Exh. WL 8 (Alaback 2010)].

Thus, it is clear that a logging plan which would indefinitely maintain planning area successional forests in the stem exclusion phase in areas with an existing old-growth habitat deficit is a significant problem. Scientists involved in the development of the TLMP conservation strategy recognized that short rotations as proposed here are “insufficient for development of forest stand attributes approximating the composition, structure, and function of old-growth forests.” [Exh. WL 16 at 6 (Iverson 1996)]. Thus, even-aged short rotations had “the highest level of risk for old-growth associated wildlife species.” [*Id.* at 7]. The DEIS must address this level of risk.

IV. Conclusion

Here we summarize some but not all of the significant points raised in these comments.

Concerning the proposed alternatives. The Proposed Range of Alternatives Violates NEPA. The NEPA analysis for this project will require a programmatic EIS in that the project

establishes a long-term plan for various resources over an extended period of time and over an 800,000 acre area.⁷⁷ The project will also require a travel management analysis for hundreds of miles of new and temporary roads - actions that independently would require a massive EIS. [POW LLA 12.17 at 8]. This programmatic function heightens the need to consider alternatives with much lower amounts of old-growth and second-growth logging and associated road construction. The Forest Service unlawfully eliminated downscaled timber extraction alternatives from further analysis, among them an alternative that would limit old-growth extraction to small sales aimed at supplying cottage industry. Alternative 2 was developed illegally through an unauthorized advisory committee and Alternative is currently unlawful pending efforts to amend the Forest Plan. The Forest Service's development of alternatives thus far has ignored the majority of public comment during previous scoping opportunities that requested downscaled alternatives. The alternatives are not sufficiently distinctive to sharply define the issues and allow for informed decisionmaking. Taken together, *New Mexico ex rel. Richardson*, *Center for Biological Diversity*, and *State of Cal.* all demonstrate 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 proposes a group of intensive logging alternatives and fails to even consider lower volume alternatives despite the serious risks to multiple use resources caused by any level of additional habitat degradation on the island. For these reasons the Forest Service should rescind its "Draft Issues and Statements" document and re-scope alternatives. At the DEIS stage the Forest Service needs to provide meaningful analysis of the economic and ecological benefits of the *no-action alternative* in the DEIS, for three broad reasons that we discussed.

Invasive plant and herbicides. Defenders opposes the use of the Forest Service's integrated weed management approach under Alternatives 3 and 4, and favors the mechanical methods proposed in Alternative 2. For reasons we discussed, there is no justification for using herbicides and every reason not to use them.

Subsistence. This proposed level of analysis is inadequate because Congress specifically intended for federal agencies to incorporate a factor of safety into resource management decisions that affect subsistence. the Forest Service must take reasonable steps to ensure not just viable, but harvestable levels of wildlife populations, in particular - deer. The EIS must account for ANILCA's emphasis on special consideration for subsistence resources, the uncertainty about climate change impacts on wildlife populations, and the extensive cumulative high grading of prime winter deer habitat on all land ownerships in the project area and adjacent areas. The DEIS needs to provide a complete Section 810 analysis as required by ANILCA and take a hard look at impacts to subsistence uses of deer. We also request that a subsistence hearing be held regarding this project. It is beyond dispute the effects of the project will present a significant restriction of subsistence uses of deer. It is not sufficient to generally provide deer habitat across the forest. ANILCA requires that wildlife resources in customary and traditional use areas must be available in close proximity to rural residents. We request a comprehensive Section 810 evaluation that conforms to guidance contained in the Forest Service Handbook. Under these circumstances, as discussed in Section II., *supra*, the Forest Service must develop downscaled timber volume alternatives.

Timber Supply and Timber Sale Economics. The Forest Service needs to consider whether the federal government can provide a better return from the public expenditures made by local and national taxpayers for POW land management activities. The need statement, being

⁷⁷ TLMP FEIS at 3-191-192, Table 3.9-3.

heavily skewed to the timber industry's interests, aims to continue 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 its minor mill production, and also aims to subsidize the logging of recovering forests. This in turn unreasonably and illegally skews the proposed alternatives hard to one side. The POW LLA Project will do significant harm to the economic viability of southeast Alaska communities in general and further inhibit market-based economic growth on Prince of Wales Island by perpetuating a federal land use policy that has been unsuccessful for decades and inhibits the natural, market-based transition toward other economic models with proven recent success in the region. Nowhere in the 2016 LRMP FEIS did the Forest Service explicitly define a "viable timber industry." As defined in the dictionary, an "industry" refers to "systematic labor especially for some useful purpose or the creation of something of value" or a "department or branch of a craft, art, business or manufacture; especially one that employs a large personnel or capital especially in manufacturing."⁷⁸ It is beyond dispute that there is very little timber manufacturing employment in the region. Due to the liberal round log export policy on the Tongass and frequent waivers even from its restrictions, it seems clear that the Tongass timber sale program primarily benefits corporations outside the region rather than the southeast Alaska economy. Meanwhile residents of the region are left with very consequential resource damage and environmental impacts and reduced economic outputs from the commercial fishing and tourism economic sectors. It is unreasonable and arbitrary to focus management of the nation's third largest island on satisfying the perceived needs of one timber operator and especially its large proportion of export. The NEPA analysis for the POW LLA Project needs to confront significant economic issues and changing workforce needs in order to assess whether a purpose and need aimed primarily at providing a timber supply Viking Lumber, its de facto parent corporation in southwest Washington, and Pacific Rim processors would meet the stated local employment and economic viability need. The export policy itself should be one of the significant issues addressed in the NEPA document for this project. Recent NEPA documentation has displayed a range of potential local employment impacts and direct income levels under the assumption that there could be local sawmill utilization of cedar. That practice is misleading and we request that this DEIS provide employment and income tables that reflect the reality of raw log export and transshipment. This information is critical so that the public can evaluate the extent to which this project generates local wood processing employment. Finally, The Forest Service needs to re-evaluate the economics and scale of this project in light of the AMHT land exchange and sales available from other timber agencies, such as the State of Alaska's Division of Forestry.⁷⁹

Watershed function. The DEIS must consider a mitigation measure that restores fish passage in the project area. Removing barrier culverts "provides immediate benefit in terms of salmon production, as salmon rapidly re-colonize the upstream area and returning adults spawn there." [Exh. WL 6 at 14 - 16]. 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. Defenders has significant concerns about the plan to expand the number of LTFs on Prince of Wales Island 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 infrastructure presents a significant concern and requires detailed NEPA analysis. Because the large volume of timber for this project meets or exceeds the volumes that caused Category V water quality impairments throughout the

⁷⁸ www.merriam-webster.com/dictionary/industry

⁷⁹ See e.g. Exh. TIM 2 (DOF 2017).

region, the Forest Service needs to prohibit in-water log storage in LTFs utilized by or operated by the Forest Service. It would be unreasonable to rely on programmatic analysis for a project like this one that could raft hundreds of millions of board feet. The DEIS 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 DEIS 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." Further, the level of detail in an EFH should reflect the best available science, and provide an analysis of adverse effects and proposed mitigation. 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. The DEIS must provide detailed information about existing and 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.

Wildlife habitat and connectivity. We request that the DEIS analyze expansion of and improvements to the island's old-growth reserve network – a task of significant urgency given the recent changes in landownership caused by the Sealaska legislation and the land exchange with AMHT. We also believe that the Forest Service needs to reconsider its approach to second growth logging and we request that the analysis carefully assess the value of allowing those forest to recover to the point of attaining some old-growth habitat features of value for wildlife. The potential for serious cumulative impacts arising from federal and non-federal logging is apparent, in view of past logging, recent land exchanges with Sealaska and AMHT, and on-going intent on all land ownerships on POW to log aggressively, in some cases over landscapes of several thousand acres and involving both old-growth and older second growth. The DEIS must address uncertainties and risks associated with the project's proposed logging of second growth in protected areas, a practice which is at best, highly experimental with regard to potential impacts on forest and wildlife resources. 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." [*Id.*]. They opposed the changes, particularly in the absence of any review by the scientific community. [*Id.* at 2]. 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. Thus, it is clear that a logging plan which would indefinitely maintain planning area successional forests in the stem exclusion phase in areas with an existing old-growth habitat deficit is a significant problem. Scientists involved in the development of the TLMP conservation strategy recognized that short rotations as proposed here are "insufficient for development of forest stand attributes approximating the composition, structure, and function of old-growth forests." [Exh. WL 16 at 6 (Iverson 1996)]. Thus, even-aged short rotations had "the highest level of risk for old-growth associated wildlife species."

Overall conclusion. The POW LLA project needs to be either dropped entirely or be rescoped with a new purpose and need statement and a broader range of alternatives that extends to low levels of logging. In the event that the Forest Service unwisely proceeds directly to preparation of a DEIS, we have provided some guidance on how the analyses should be done.

Sincerely,

A handwritten signature in black ink that reads "Larry Edwards". The signature is written in a cursive, flowing style.

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

Correspondence email address regarding these comments:
Larry@LTEdwards.com

Attachments:

1. List of Exhibits (below)
2. DVD disk of exhibits, sent separately by postal mail.

Attachment 1: List of Exhibits

Exh. CLIM 1 - CEQ_2014__Draft guidance on consideration of GHG emissions in NEPA.pdf

Exh. FSH 1 Walker 2016.pdf

Exh. FSH 2 Foley et al 2011.pdf

Exh. FSH 3 Knowler et al 2001.pdf

Exh. FSH 4 VALUING FRESHWATER SALMON HABITAT AS A BENEFIT OF PROTECTED AREAS ON THE WEST COAST OF CANADA - ResearchGate.pdf

Exh. FSH 5 EcoNorthwest 1999 PRC-RES-SalmonTimberEconomy.pdf

Exh. FSH 6 pacific-coast-federation-of-fishermens-associations.pdf

Exh. FSH 7 New_Log_Handling (DFO).pdf

Exh. INV 1 FINAL_Report_OregonIndustrialForest_and_HerbicideUse_12-17-13.pdf

Exh. LTF 1 2014-2016-integrated-report-public-notice-version-final-1.pdf

Exh. LTF 2 Water-based_log_handling_do.pdf

Exh. LTF 3 wdfwcrab habitat.pdf

Exh. LTF 4 pnw_gtr174.pdf

Exh. LTF 5 BC 2003 Log Handling Practices.pdf

Exh. LTF 6 Deep-Water Bark Accumulation and Benthos Richness at LTFs.pdf

Exh. LTF 7 Transportation and Storage of Logs pnw_gtr186.pdf

Exh. LTF 8 New_Log_Handling.pdf

Exh. LTF 9 NMFS 2006 epalogtransferfacilitytynpdes.pdf

Exh. LTF 10 Morado_e-a_1988__ A preliminary study of idiopathic lesions in the Dungeness crab, Cancer magister, from Rowan Bay.pdf

Exh. LTF 11 O'Clair_&_Freese_1985__Responses of Dungeness to bark debris at LTFs (survival, feeding, reprod).pdf

Exh. LTF 12 O'Clair_e-a_1988__Reproductive condition of Dungeness crabs at or near log transfer facilities, SE Ak.pdf

Exh. PROJ 1 Screenshot of POW LLA project website page & available documents__18Dec17.png

Exh. TIM 1 Naukati BIF__AMHT_22Nov17.pdf

Exh. TIM 2 DOF North Hollis.pdf

Exh. WL 1 Jenkins 2017.pdf

Exh. WL 2 SitNews 11.17.pdf

Exh. WL 3 SitNews 10.17.pdf

Exh. WL 4 searac_fall2017_meeting_book_small.pdf

Exh. WL 5 deer_smr_2015_3_chapter_4_unit_2.pdf

Exh. WL 6 Alaback et al 2015.pdf
Exh. WL 7 Ott Juday 2002.pdf
Exh. WL 8 Alaback 2010.pdf
Exh. WL 9 PNW 2002.pdf
Exh. WL 10 Cole 2010.pdf
Exh. WL 11 Alaback 1984.pdf
Exh. WL 12 Alaback et al 2014.pdf
Exh. WL 13 Alaback et al 2015.pdf
Exh. WL 14 Kirchhoff_2015__19-April letter to the TAC.pdf
Exh. WL 15 Alaback et al 2014.pdf
Exh. WL 16 Iverson 1996.pdf
Exh. WL 17 Tongass in Transition - Wolves and logging both cut into Prince of Wales deer__APM,
KTOO__18Dec17.pdf
Exh. WL 18 Exh. WL 18 Kirchhoff_&_Schoen_1987__Forest cover & snow - Implications for SE Ak deer
habitat.pdf