ALASKA RAINFOREST DEFENDERS – ALASKA WILDERNESS LEAGUE CENTER FOR BIOLOGICAL DIVERSITY – DEFENDERS OF WILDLIFE NATURAL RESOURCE DEFENSE COUNCIL – SIERRA CLUB SOUTHEAST ALASKA CONSERVATION COUNCIL – THE BOAT COMPANY WOMEN'S EARTH AND CLIMATE ACTION NETWORK

December 21, 2018

VIA ELECTRONIC MAIL AND HAND-DELIVERY

David Schmid, Regional Forester U.S. Forest Service Alaska Regional Office 709 W. 9th Street P.O. Box 21628 Juneau, AK 99802-1628 E: objections-alaska-regional-office@fs.fed.us

Re: Objection to the Prince of Wales Landscape Level Analysis Project

Dear Regional Forester Schmid:

Pursuant to 36 C.F.R. Part 218, Alaska Rainforest Defenders, Alaska Wilderness League, Center for Biological Diversity, Defenders of Wildlife, Natural Resource Defense Council, Sierra Club, Southeast Alaska Conservation Council, The Boat Company, and Women's Earth and Climate Action Network, through counsel, hereby object to the Final Environmental Impact Statement (FEIS) and Draft Record of Decision (Draft ROD) for the Prince of Wales Landscape Level Analysis Project (the Prince of Wales Logging Project or Project).

With this one decision, the Forest Service is authorizing the largest logging project in the entire country in more than a generation. The agency is approving logging roughly 43,000 acres of the Tongass, equating to more than 650 million board feet of timber and roughly 150 miles of roadbuilding. The amount of old-growth forest alone (23,269 acres) that will be lost equals an area one and a half times the size of Manhattan or 159 times the size of the National Mall in Washington, D.C.

The agency tries to soften the blow of this record-breaking logging project, suggesting it could pursue some habitat restoration efforts and improve recreational opportunities, but the agency admits none of those aspects of the Project having any funding. This leaves the agency to claim the logging will "improve forest ecosystem health." The suggestion is at best nonsensical and worst disingenuous—if the agency would stop clearcutting old-growth forests in the first place, then it would not have to advance desperate pretenses.

Even more troubling, however, the Forest Service's approach to the Project—what the agency terms "condition-based" analysis—runs contrary to the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), and decades of cases interpreting those laws. The agency is refusing to tell affected communities, subsistence users, or members of the public any of the details regarding the Project, including where within the 2.3 million-acre project area and when during the 15-year project timeframe the logging and road building will take place. According to the agency, it is going to approve all of the logging and roadbuilding first and then tell people when, where, and how much of particular areas of the Tongass will be logged without explaining the adverse impacts associated with that logging in any given location. Failing to disclose and examine site-specific information leaves the Forest Service unable to analyze the impacts of, alternatives to, or mitigation measures for the Project, and, more fundamentally, deprives the public its right to participate meaningfully in the planning process.

The Forest Service also plows ahead undaunted by the scores of independent scientific experts expressing uniform opposition to the Project. Most of these scientists have served as Forest Service experts, many with decades of expertise on the Tongass. Yet now that those same experts are telling the Forest Service they do not support the Project and that the agency is acting arbitrarily and contrary to the best scientific information, the agency ignores their opinions. As one recently retired Tongass Forest Service employee with more than 20 years NEPA experience explained, the agency's analysis of the Project "may have fallen off the cliff of interdisciplinary science that is mandated by NEPA."¹

Finally, like the rest of the Tongass old-growth logging program, the Forest Service bases the Project on a faulty economic analysis. Indeed, the dire economic reality is so bad the agency refuses to disclose its cost-benefit analysis in the FEIS. The Forest Service also fails to address the fact that its own investigation revealed pervasive agency mismanagement of logging projects on the Tongass and, more importantly, whether and how the agency fixed those systemic problems. Ultimately, the Forest Service refuses to explain to the public that taxpayers are being forced to subsidize the Tongass logging program tens of millions of dollars every year,² up to and potentially including paying for all of the logging roads authorized by the Project.

¹ PR 833_1524 (J. Kelly Comments to the Prince of Wales Landscape Level Analysis Project Draft EIS at 9 (Jun. 12, 2018)); *see also id.* at 2-3 ("[T]he Forest Service seeks to use the landscape of Prince of Wales Island and the Tongass National Forest as a checking account for timber harvest log export without balancing the concomitant resources (of [Multiple Use Sustained Yield Act] (MUSYA)) such as black bear, deer and wolves and local jobs in the long term as both MUSYA and [Council for Environmental Quality] regulations would require.").

² See Center for American Progress, Fraud in the Tongass (Oct. 3, 2018); U.S. Government Accountability Office, Tongass National Forest, Forest Service's Actions Related to Its Planned Timber Program Transition at 7 (2016); see also Taxpayers for Common Sense, Money Losing Timber Sales: Tongass National Forest at 1 (Mar. 2015); U.S. Forest Service, State of the Tongass National Forest (FY 2009 – 2013); Headwaters Economics, The Tongass National Forest and the Transition Framework: A New Path Forward? at 4-5 (Nov. 2014).

All of this, of course, continues an enormous decades-long drain on the public's financial resources. From 1982 to 2012, the Forest Service spent \$1 billion more to log the Tongass than it received in timber revenues.³ Despite these massive public subsidies, the logging industry consistently contributes less than one percent in total employment earnings for Southeast Alaska.⁴

In short, the Prince of Wales Logging Project reflects a reckless approach even by the wasteful and unsustainable standards of the Tongass logging program. Like all old-growth logging on the Tongass, the Project threatens values important to residents of Prince of Wales Island, Southeast Alaska, and the nation. Tongass communities depend upon the forest's old-growth stands to support the region's fish, wildlife, and outdoor recreation industries. Clear-cutting these ancient trees also compromises the United States' climate preparedness, and reduces the country's ability to address the effects of climate change worldwide. Now, however, the Forest Service is abandoning long-standing legal and scientific principles in a poorly veiled attempt to approve a massive giveaway to the timber industry based on as little analysis and public disclosure as possible. We strongly urge the Forest Service to take a different approach with regard to the Prince of Wales Logging Project, because to do otherwise, the agency will violate the law.

³ J. Mehrkens, Scoping Comments for Proposed TLMP Amendment at 2 (June 19, 2014).

⁴ See Southeast Conference, Southeast Alaska by the Numbers 2017 at 4 (Sept. 2017); Southeast Conference, Southeast Alaska by the Numbers 2016 at 4 (Sept. 2016); Southeast Conference, Southeast Alaska by the Numbers 2015 at 4 (Sept. 2015); Southeast Conference, Southeast Alaska by the Numbers 2014 at 4 (Sept. 2014); Southeast Conference, Southeast Alaska by the Numbers 2013 at 4 (Sept. 2013); see also Southeast Conference, The Arts Economy of Southeast Alaska at 1 (Sept. 2014) ("[i]n terms of workforce earnings, the arts sector is nearly twice the size of the regional timber industry").

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DESCRIPTION OF THE OBJECTING PARTIES

On June 18, 2018, the objecting parties submitted substantive comments (the DEIS Comment Letter) on the Prince of Wales Logging Project and the associated Draft Environmental Impact Statement (the DEIS).⁵ The Forest Service plans to implement the Prince of Wales Logging Project in the Thorne Bay Ranger District and the Craig Ranger District of the Tongass National Forest.⁶ M. Earl Stewart, Forest Supervisor is the Responsible Official.⁷

Many of the undersigned groups also commented on, and objected to the 2016 Amendment to the Tongass Land and Resource Management Plan Final Environmental Impact Statement (2016 Amended Forest Plan FEIS) and the 2016 Amendment to the Tongass Land and Resource Management Plan (2016 Amended Forest Plan), which now governs the Prince of Wales Logging Project. The undersigned organizations reiterate the arguments and issues raised regarding the 2016 Amended Forest Plan in their entirety.⁸

Additionally, all documents cited in this objection will be hand-delivered to the Forest Service Alaska Regional Office on December 21, 2018 (with the exception of statutes, regulations, Forest Service documents (forest plans, Forest Service Handbook, etc.), and documents cited in the planning documentation) with this objection. *See* 36 C.F.R. § 218.8(b). When citing to specific documents included in the Prince of Wales Logging Project Planning Record or other Forest Service planning records, the objection refers to the relevant record citation (*e.g.*, PR 833_, PR 769_, PR 603_, etc.) and also includes them with the objection for the agency's convenience.

⁶ See generally 36 C.F.R. § 218.8(d)(4).

⁷ Id.

⁸ See Southeast Alaska Conservation Council et al., Letter to B. Pendleton, Regional Forester, Re: Objection 2016 Amended Tongass Land Management Plan (Aug. 30, 2016) (SEACC Forest Plan Objection); Alaska Wilderness League et al., Letter to E. Stewart, Tongass Forest Supervisor (Feb. 22, 2016) (SEACC Forest Plan Comment Letter); Alaska Rainforest Defenders (formerly known as Greater Southeast Alaska Conservation Community) et al., Letter to B. Pendleton, Regional Forester (Aug. 30, 2016) (ARD Forest Plan Objection); Alaska Rainforest Defenders (formerly known as Greater Southeast Alaska Conservation Community) et al., Letter to E. Stewart, Tongass Forest Supervisor (Feb. 22, 2016) (ARD Forest Plan Comment Letter).

⁵ See Alaska Rainforest Defenders, *et al.*, Letter to D. Brigham, Project Leader, Re. Prince of Wales Landscape Level Analysis Project Draft Environmental Impact Statement (Jun. 18, 2018). Given the Forest Service inexplicably failed to include all of the material the undersigned provided in support of the DEIS Comment Letter, they provide those documents (except for the Big Thorne and Logjam planning records) again to ensure they are included in the planning record. *See* DEIS Comment Letter, Documents in Support of Alaska Rainforest Defenders *et al.*'s Comments on Prince of Wales Landscape Level Project Draft Environmental Impact Statement (Jun. 18, 2018).

The 2016 Amended Forest Plan is an amendment to the Tongass Land and Resource Management Plan the Forest Service adopted in 1997 (the 1997 Forest Plan).⁹ In 2008, the Forest Service adopted an earlier amendment to the 1997 Forest Plan, the 2008 Amended Tongass Land Management Plan (2008 Amended Forest Plan).¹⁰ Groups participated in the administrative processes for the 1997 Forest Plan and the 2008 Amended Forest Plan.

Following Secretary of Agriculture Thomas Vilsack's issuance of Memorandum 1044-009 in 2013, "[t]he Forest Service determined that it [was] necessary to amend the 2008 Forest Plan," to accomplish the Secretary's directive to transition forest management on the Tongass.¹¹ The 2016 Amended Forest Plan made some "substantive changes,"¹² but retained most of the 2008 Amended Forest Plan: "All the new or modified components have been placed in Chapter 5 of the 2016 Forest Plan Amendment^{"13} Thus, Chapters 1 through 4 of the 2008 Amended Forest Plan remain substantively unchanged. "Only those changes that were made to the 2008 Forest Plan are described and analyzed in [the 2016 Amended Forest Plan FEIS]."¹⁴

When it adopted the 2016 Amended Forest Plan, the Forest Service explained the relationship between the three forest planning efforts as follows:

[The 2016 Forest Plan] FEIS describes and analyzes changes to the 2008 Forest Plan and tiers to and incorporates by reference the 1997 Tongass Land Management Plan Revision FEIS . . . the 2003 Final Supplemental EIS (SEIS) for Roadless Area Evaluation for Wilderness Recommendations . . . and the 2008 Tongass Land and Resource Management Plan Amendment FEIS . . . and the 2008 Record of Decision Where appropriate, information in these documents that is relevant to analysis in this FEIS is cited and incorporated by reference.¹⁵

As the Forest Service explained, these earlier forest plans, decision documents, environmental reviews, and the associated planning records (including all comments and administrative appeals) serve as the scientific and management predicate for the 2016 Amended Forest. In June, the Forest Service notified Earthjustice the agency failed to include them in the Prince of

¹³ *Id.* at 13.

¹⁵ *Id.* at ES-2.

⁹ 2016 Amended Forest Plan FEIS at 1-1.

¹⁰ *Id*. at 1-1.

¹¹ *Id*. at ES-1 to 2.

¹² U.S. Forest Service, Tongass Land and Resource Management Plan, Record of Decision at 2 (Dec. 2016) (2016 Amended Forest Plan ROD).

¹⁴ 2016 Amended Forest Plan FEIS at 1-4.

Wales Project DEIS project record.¹⁶ As a result, the undersigned provided all of these materials to the Thorne Bay Ranger District on June 18, 2018, as part of their DEIS Comment Letter. The planning record, however, still does not include in these materials. Thus, the objectors once again provide the Forest Service the environmental impact statements (EISs), records of decisions (RODs), and the planning or administrative records for the 1997 Forest Plan, the 2008 Amended Forest Plan, and the 2016 Amended Forest Plan to ensure they are part of the agency's planning record for the Prince of Wales Logging Project.¹⁷

For purposes of 36 C.F.R. § 218.8(d)(1), the objecting parties may be contacted at the names, addresses and telephone numbers indicated in the signature block. For purposes of 36 C.F.R. § 218.8(d)(3), Earthjustice is the "lead objector."

STATEMENT OF ISSUES, INCONSISTENCY, AND ILLEGALITY

As explained below, this objection addresses the Prince of Wales Logging Project, as well as the supporting FEIS and the Draft ROD. The objection addresses the specific issues of concern below.¹⁸

The objection identifies: (1) the various ways that implementation of the Prince of Wales Logging Project based upon the FEIS, the Draft ROD, and the 2016 Amended Forest Plan (itself based on the 2016 Amended Forest Plan FEIS and 2016 Amended Forest Plan ROD), will be inconsistent with law, regulation, and policy; and, (2) how the Forest Service's decision and supporting documents must be improved to correct the infirmities for purposes of 36 C.F.R. § 218.8(d)(5). As explained below, each substantive section also demonstrates the connection between specific sections of the DEIS Comment Letter and/or explains that a specific issue arose after the opportunity for formal comment.¹⁹

¹⁶ See D. Brigham, Forest Service, Email to H. Harris, Earthjustice, Re. POW LLA Project DEIS Planning Record (Jun. 13, 2018).

¹⁷ The Forest Service's decision to not include the forest plan planning records, forest plans, and environmental analysis in the planning record for the Project is contrary to the agency's past practice concerning timber sale projects on the Tongass National Forest. In the past, the agency acknowledged that the environmental analyses supporting those timber sales tier to the governing forest plan, and as such, the forest plan planning records were included in the timber sales planning records. *See, e.g.*, R. Dale, Forest Service, Email to H. Harris, Earthjustice, Re. Wrangell Island Planning Record (July 1, 2016); Certification of the Administrative Record, Tongass Conservation Society v. Cole, Case no. 1:09-cv-00003-JWS (D. Alaska, May 18, 2008) (challenge to the Sea Level Timber Sale).

¹⁸ See generally 36 C.F.R § 218.8(d)(5).

¹⁹ See 36 C.F.R. § 218.8(c).

UNLAWFUL CONDITION-BASED NEPA REVIEW

The Forest Service characterizes the FEIS as "a project-level analysis"²⁰ that "will result in the decision whether or not to authorize integrated management activities on the Prince of Wales Island over the next 15 years."²¹ According to the agency, this "condition-based NEPA" analysis "means that while the range of treatments or activities authorized will be described and analyzed in [the EIS], the specific locations and methods will be determined during implementation based on defined conditions in the alternative selected in the Decision and activity cards (Appendix A)."²² In the FEIS's Response to Comments, the agency explains that "condition-based" analysis means "it is not possible to determine all of the direct, indirect, or cumulative impacts to wildlife habitat or connectivity that could result from this project before implementation."²³ The FEIS also makes clear the Forest Service expects to approve the ROD for the Prince of Wales Logging Project "*without the need for additional NEPA analysis*."²⁴

The Forest Service's use of "condition-based NEPA" in the FEIS runs contrary to NEPA, the Council for Environmental Quality's (CEQ) implementing regulations, and decades of case law interpreting NEPA's requirements.²⁵ As explained below, the FEIS fails to address required issues, including the direct, indirect, or cumulative impacts of this enormous logging project, reasonable alternatives to the logging proposal, and specific mitigation measures that would reduce the adverse impacts on Southeast Alaska communities and the Tongass ecosystem.

I. NEPA REQUIRES THE FOREST SERVICE TO PRODUCE A SPATIALLY AND TEMPORALLY SPECIFIC ANALYSIS BECAUSE THIS IS A PROJECT-LEVEL DECISION.

NEPA is "our basic national charter for protection of the environment."²⁶ In enacting NEPA, Congress recognized the "profound impact" of human activities, including "resource exploitation," on the environment and declared a national policy "to create and maintain conditions under which man and nature can exist in productive harmony."²⁷ The statute has two fundamental two goals: "(1) to ensure that the agency will have detailed information on

²⁰ FEIS at 7.

²¹ *Id.*, Abstract at PDF 5; *see also id.* at 61-62 (FEIS describing the Project's "Irreversible and Irretrievable Commitments of Resources").

²² *Id.* at i.

²³ Id., Appendix D at D-58.

²⁴ *Id.*, Appendix B at B-1 (emphasis added) (stating that the Implementation Plan in Appendix B "in conjunction with the Activity Cards in Appendix A [provides] a linkage from the FEIS to the project-specific work").

²⁵ See DEIS Comment Letter at 9-14.

²⁶ Center for Biological Diversity v. United States Forest Serv., 349 F.3d 1157, 1166 (9th Cir. 2003) (quoting 40 C.F.R. § 1500.1).

²⁷ 42 U.S.C. § 4331(a).

significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience.²⁸

"NEPA promotes its sweeping commitment to 'prevent or eliminate damage to the environment and biosphere' by focusing Government and public attention on the environmental effects of proposed agency action."²⁹ Stated more directly, NEPA's "action-forcing' procedures . . . require the [Forest Service] to take a 'hard look' at environmental consequences,"³⁰ *before* the agency approves an action. "By so focusing agency attention, NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct."³¹

NEPA's review obligations are more stringent and detailed at the project level, or "implementation stage," given the nature of "individual site specific projects."³² "[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."³³ NEPA requires the agency to provide the public "the underlying environmental data' from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions."³⁴ "The agency must explain the conclusions it has drawn from its chosen methodology, and the reasons it considered the underlying evidence to be reliable."³⁵ In the end, "vague and conclusory statements, without any supporting data, do not constitute a 'hard look' at the environmental consequences of the action as required by NEPA."³⁶

²⁹ Marsh v. Or. Natural Res. Council, 490 U.S. 360, 371 (1989) (quoting 42 U.S.C. § 4321).

³⁰ Metcalf v. Daley, 214 F.3d 1135, 1141 (9th Cir. 2000) (quoting Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348 (1989)).

³¹ Marsh, 490 U.S. at 371 (citation omitted).

³² Ecology Ctr., Inc. v. United States Forest Serv., 192 F.3d 922, 923 n.2 (9th Cir. 1999); see also Friends of Yosemite Valley v. Norton, 348 F.3d 789, 800-01 (9th Cir. 2003).

³³ Or. Natural Res. Council Fund v. Brong, 492 F.3d 1120, 1134 (9th Cir. 2007) (citation omitted); see also Or. Natural Res. Council Fund v. Goodman, 505 F.3d 884, 892 (9th Cir. 2007) (holding the Forest Service's failure to discuss the importance of maintaining a biological corridor violated NEPA, explaining that "[m]erely disclosing the existence of a biological corridor is inadequate" and that the agency must "meaningfully substantiate [its] finding").

³⁴ WildEarth Guardians v. Mont. Snowmobile Ass'n, 790 F.3d 920, 925 (9th Cir. 2015).

³⁵ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1075 (9th Cir. 2011) (citation omitted).

³⁶ Great Basin Mine Watch v. Hankins, 456 F.3d 955, 973 (9th Cir. 2006).

²⁸ Envtl. Prot. Info. Ctr. v. Blackwell, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting Neighbors of Cuddy Mt. v. Alexander, 303 F.3d 1059, 1063 (9th Cir. 2002)); see also Earth Island v. United States Forest Serv., 351 F.3d 1291, 1300 (9th Cir. 2003) ("NEPA requires that a federal agency 'consider every significant aspect of the environmental impact of a proposed action . . . [and] inform the public that it has indeed considered environmental concerns in its decision-making process."").

CEQ's regulations establish specific ways agencies must analyze proposed actions, including project-level decisions. In addition to a detailed discussion of alternatives, adverse environmental effects, and irreversible commitments of resources, the regulations require agencies to address:

(a) Direct effects and their significance;

(b) Indirect effects and their significance;

(c) Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned;

(d) The environmental effects of alternatives including the proposed action;

(e) Energy requirements and conservation potential of various alternatives and mitigation measures;

(f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.³⁷

The Prince of Wales Logging Project is a project-level decision and, as a result, the FEIS must include the detailed information and analysis that NEPA and the CEQ regulations require because the Forest Service admits there will not be any further NEPA analysis.³⁸ Here, as discussed in detail below, the Forest Service violates NEPA because the FEIS fails to describe the characteristics of the specific logging and road-building projects (*e.g.*, when, where, how much, what sequence, old-growth versus young-growth, location and length of roads, etc.) and

³⁷ 40 C.F.R. § 1502.16.

³⁸ FEIS, Appendix B at B-1. Prior to the Prince of Wales Logging Project, the Forest Service consistently prepared resource reports and biological evaluations/assessments that helped inform the agency's NEPA review of timber sale projects. *See, e.g.*, PR 736_2222 (Big Thorne Botany Resource Report); PR 736_2223 (Big Thorne Climate Change Resource Report); PR 736_2224 (Big Thorne Timber Economics Resource Report); PR 736_2230 (Big Thorne Land and Wild and Scenic Rivers Resource Report); PR 736_2232 (Big Thorne Scenery Resource Report); PR 736_2233 (Big Thorne Timber and Silviculture Resource Report); PR 736_2234 (Big Thorne Scenery Resource Report); PR 736_2239 (Big Thorne Timber and Silviculture Resource Report); PR 736_2234 (Big Thorne Scenery); PR 736_2229 (Big Thorne Karst Resource Report); PR 736_2236 (Big Thorne Transportation Resource Report); PR 736_2240 (Big Thorne Inventoried Roadless Area and Wilderness Resource Report). A review of the planning record reveals the Forest Service prepared none of these documents for the Prince of Wales Logging Project, so groups submitted a Freedom of Information Act request to confirm the agency failed to prepare any of these materials in this case.

then analyze the specific impacts, alternatives, and necessary mitigation associated with those implementation decisions.

II. THE FOREST SERVICE'S CONDITION-BASED NEPA APPROACH FAILS TO ANALYZE THE PROJECT'S DIRECT AND INDIRECT IMPACTS.

The Prince of Wales Logging Project is a project-level decision that the Forest Service is implementing, pursuant to the 2016 Amended Forest Plan, to authorize logging 656 million board feet (MMBF) and building 164 miles of roads³⁹ over the next 15 years in a geographic area that encompasses 2.3 million acres.⁴⁰ The Forest Service, however, has not decided where, when, or how much any of those activities will take place across the 1.8 million acres of Forest Service lands in the project area,⁴¹ because the agency is only going to make those decisions *after* it authorizes the Project.⁴² As described below, the FEIS fails to disclose the resulting direct and indirect impacts of those logging and roadbuilding activities, including the adverse impacts on particular communities, subsistence users, geographic areas and watersheds, and bird and wildlife populations, rendering it unlawful under NEPA.

The FEIS does not disclose any of characteristics of the specific logging projects that the ROD will authorize and, as a result, fails to examine the associated impacts of those choices. The agency does not explain, for example, when particular logging activities will occur (*e.g.*, years 1, 2, and 3 or years 1, 10, and 15). It also fails to explain the location of those logging activities or their relation to nearby logging activities across the 2.3 million-acre project area. The agency fails to explain the sequence of logging or the concentration of logging activities (*e.g.*, will logging in a particular portion of the island take place all at that the same time or distributed over several years). The agency fails to explain whether and when it will offer old-growth sales versus young-growth sales and the sizes of those sales to facilitate the transition outlined in the 2016 Amended Forest Plan.⁴³

Similarly, the FEIS fails to explain where, when, and in what sequence and spatial relationship any of the roads will be constructed or reconstructed as well as the nature of those roads (*i.e.*, length, etc.), making it impossible to explain the site-specific impacts of any given road or combination of roads. The FEIS states simply: "It is unknown where on the landscape the road building would occur."⁴⁴ It fails to explain which roads will be permanent and which will be

⁴¹ *Id.* at 2; *see also id.* at 8, Tbl. 1.

⁴² *Id.* at 1.

⁴³ *Id.* at 120 (The Forest Service plans to authorize the entire Prince of Wales Logging Project first and then "[t]he size of both old-growth and young-growth timber offerings will be determined during implementation.").

⁴⁴ *Id.* at 234.

³⁹ *Id.* at 23, Tbl. 2 (describing Alternative 2).

⁴⁰ *Id.* at 229.

temporary roads, making it impossible to understand the direct and indirect effects.⁴⁵ The FEIS also does not explain the costs of the individual roads or disclose whether the agency will force the public to pay for any of those roads through pre-roading.⁴⁶

The Forest Service's "condition-based" approach to the Prince of Wales Logging Project gives the decision-maker and the public virtually no information regarding the direct and indirect impacts. Indeed, examining Chapter 3 (Environment and Effects) of the FEIS reveals the agency's impact analysis is identical in many instances and all but meaningless for understanding the adverse impacts of the Project in every instance.

Overall, the FEIS bases the agency's entire impacts analysis, including cumulative impacts, on two basic approaches. In the first, the FEIS offers generic, superficial assessments of generalized impacts that fail to explain what will actually occur because of this project and frequently provides identical descriptions for every action alternative. In the second, the FEIS simply catalogs acres, or percent, of habitat types remaining, again without explaining the consequences and adverse impacts of that habitat loss.

For example, the FEIS describes the direct and indirect effects of roads and timber harvest and provides virtually identical descriptions of the action alternatives:

	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 5
ROADS	"If all 122 miles of new road were to be constructed in this alternative effects to aquatic resources are expected to range from minor to moderate. The 122 miles of new road are made up of small segments spread across	"If all 122 miles of new road were to be constructed in this alternative effects to aquatic resources are expected to range from minor to moderate. The 122 miles are made up of small segments spread across the entire project	"If all 118 miles of new road were to be constructed in this alternative effects to aquatic resources are expected to range from minor to moderate. The 118 miles is made up of small segments spread across the entire project
	the entire project area as	area as opposed to long	area as opposed to long

⁴⁵ *Id.* at 22 ("maximum miles of road construction under any one alternative is expected to change based on the logging systems used and where harvest occurs on the landscape"); *id.* at 331 ("The total road miles needed will be determined by the specific harvest units offered and the needed transportation network."); *id.* at 35 ("Temporary roads may remain open for a set period of time post-activities."); *id.*, Appendix A at 113 ("Roads identified through analysis as not needed are candidates for road decommissioning.").

⁴⁶ See, e.g., *id.* at 114, Tbl. 16 (providing one estimated transportation infrastructure cost for each alternative); *id.* at 334, Tbl. 90 (providing total estimated road development costs of each alternative). Even those generic costs estimates "are not exact values" and "are presented to provide a relative comparison between the alternatives" rather than explaining the costs and impacts of any given road. *Id.*

	opposed to long continuous segments within a floodplain. Where these segments do occur near fish habitat, there is a higher risk of sediment related impacts to aquatic habitat." ⁴⁷	continuous segments within a floodplain. Where these segments do occur near fish habitat, there is a higher risk of sediment related impacts to aquatic habitat." ⁴⁸	continuous segments within a floodplain. Where these segments do occur near fish habitat, there is a higher risk of sediment related impacts to aquatic habitat." ⁴⁹
TIMBER HARVEST	"The timber harvest proposed in this alternative could have minor adverse effects on water quality, fish habitat, and aquatic organisms. While timber harvest can have adverse effects on water quality, fish habitat and fish by altering the amount and timing of runoff, sediment transport/deposition regimes (Sullivan <i>et al.</i> 1987), average substrate size (Ross 2013), and stream temperature (Beschta <i>et al.</i> 1987), mandatory no-harvest riparian management areas (RMA) and other protections outlined in the Activity Cards (Appendix A) would minimize these adverse effects." ⁵⁰	"The timber harvest proposed in Alternative 3 could have minor adverse effects on water quality, fish habitat, and aquatic organisms. While timber harvest can have adverse effects on water quality, fish habitat and fish by altering the amount and timing of runoff, sediment transport/deposition regimes (Sullivan <i>et al.</i> 1987), average substrate size (Ross 2013), and stream temperature (Beschta <i>et al.</i> 1987), mandatory no-harvest riparian management areas (RMA) and other protections outlined in the Activity Cards (Appendix A) would minimize these adverse effects." ⁵¹	"The timber harvest proposed in this alternative could have minor adverse effects on water quality, fish habitat, and aquatic organisms. While timber harvest can have adverse effects on water quality, fish habitat and fish by altering the amount and timing of runoff, sediment transport/deposition regimes (Sullivan et al. 1987), average substrate size (Ross 2013), and stream temperature (Beschta et al. 1987), mandatory no-harvest riparian management areas (RMA) and other protections outlined in the Activity Cards (Appendix A) would minimize these adverse effects." ⁵²

- ⁴⁷ *Id.* at 156.
- ⁴⁸ *Id*. at 161
- ⁴⁹ *Id*. at 164.
- ⁵⁰ FEIS at 156.
- ⁵¹ *Id.* at 162.

⁵² *Id.* at 164-65.

In another example of the agency's generic assessment, the FEIS analyzes describes the direct and indirect effects on non-winter deer habitat in only three paragraphs:

Alternative 2 will result in about a 2 percent decline in non-winter habitat at the project area scale, followed by Alternatives 3 and 5, both with a 1 percent decline or less. At the project area scale, this results in about a 10 percent reduction since 1954 for Alternative 2 (90 percent remaining), and a 9 percent reduction in Alternatives 3 and 5 (91 percent remaining).

Assuming all POG harvest acres are also non-winter habitat acres, the effects post-project result in one [wildlife analysis area (WAA)], 1525 (46 percent remaining), retaining less than 50 percent of the estimated 1954 non-winter habitat.

Proposed activities that could result in less than 50 percent remaining by WAA would have greater effects if these WAAs were adjacent to each other or on islands. WAA 1525 is on Kosciusko Island; however, the other half of Kosciusko Island is WAA 1526, which has an estimated 96 percent non-winter habitat remaining, somewhat mitigating the effects in WAA 1525 relative to WAAs that are isolated or surrounded by other WAAs with less habitat remaining.⁵³

The FEIS's discussion of direct and indirect effects on productive old-growth habitat is equally generic:

For this analysis it is assumed that all potential harvest acres are [productive old-growth (POG)] acres and all would be clearcut. The assumption of all clearcut harvest likely over estimates the effects because the timber analysis indicates more helicopter logging (assumed harvest other than clearcut) than tradition harvest (assumed clearcut). The assumption that all harvest acres were clearcut was done to display maximum effects.

The direct and indirect effects analysis includes [National Forest System] land acres only. At the project area scale, Alternative 2 harvests about 23,269 acres (3 percent of current) of POG, Alternative 3 harvests about 13,014 acres (2 percent of current), and Alternative 5 about 6,365 acres (1 percent of current). At the project area scale, this results in about a total reduction since 1954 of about 21 percent for Alternative 2, a 20 percent reduction since 1954 in Alternative 3, and about a 19 percent reduction since 1954 for Alternative 5. The specific location and amount of harvest in each

⁵³ *Id.* at 178.

WAA would be determined during implementation and vary by alternative.

Post-project, four WAAs 1003 (40 percent remaining), 1317 (48 percent remaining), 1422 (47 percent remaining) and 1525 (33 percent remaining) drop from having more than 50 percent original POG to less than 50 percent due to the activities proposed in the POW LLA Project. Two WAAs, WAA 1315 (28 percent remaining) and WAA 1420 (30 percent remaining), drop from more than 50 percent POG remaining to 30 percent or less. WAAs 1315 and 1420 are adjacent to each other. WAA 1315 is also adjacent to WAA 1319 (65 percent POG remaining) and WAA 1420 is also adjacent to WAA 1421 (67 percent POG remaining) and WAA 1319 (65 percent POG remaining).

WAA 1003 includes [volume comparison units (VCUs)] that would have legacy structure retention as well as peak flow rate mitigation measures. WAAs 1315 and 1420 would receive limited harvest in all alternatives due to mitigation measures in Alternative 2 that includes wildlife centric prescriptions within 5 miles of subsistence communities, Alternative 3 that includes only 25 percent removal by STS in south-facing stands below 800 feet in elevation, and Alternative 5 that does not allow old-growth harvest in south-facing stands below 800 feet in elevation as well as legacy forest structure retention and peak flow mitigation measures. WAA 1317 includes measures included in Alternatives 3 and 5 as well as both legacy structure retention and peak flow rate measures. WAA 1422 includes measures included in Alternative 2 as well as legacy and peak flow rate measures. WAA 1525 includes the measures in place in Alternative 2, legacy structure retention, and peak flow rate measures.

The levels of tolerance to habitat change determined by research (see Affected Environment above) of 30 and 50 percent of the original habitat remaining are dependent in part on the dispersal capabilities of the species associated with that habitat type. Species with greater dispersal capabilities such as the bear may be less affected by WAAs with less habitat if these areas are adjacent to areas that have more habitat. Both reduction in habitat and distance between habitats would likely have a greater impact to species with more limited dispersal capabilities such as the shrew and ermine. Species such as the shrew and ermine may be impacted even more when areas of past effects are concentrated or on islands. The fact that WAAs 1315 and 1420 are both effected by habitat loss and are adjacent to each may exacerbate the local effects to species like the shrew and ermine.⁵⁴

Elsewhere the FEIS lumps the analysis of the direct and indirect effects into the same section with little or no analysis of the differences between the action alternatives⁵⁵ and repeats this pattern throughout the entire discussion.⁵⁶ For example, the direct and indirect effects analysis of the Project's adverse effects on the most productive, large-tree old-growth (SD67) amounts to little more than a catalog of data on acres of habitat remaining, with no meaningful discussion of the consequences:

Alternative 1

Alternative 1 will have no direct or indirect effect to SD67 habitat.

Alternatives 2, 3, and 5

Alternative 2 could harvest about 4,421 acres of SD67 resulting in about a retention of about 97 percent of the current SD67 habitat and about 71 percent of the estimated 1954 SD67 habitat. Alternative 3 could harvest about 1,162 acres of SD67 habitat and Alternative 5 about 568 acres both resulting in about a 99 percent retention of current SD67 habitat and 73 percent of the estimated 1954 SD67 habitat.

Table 44 shows the effects of timber harvest proposed in the [Prince of Wales Logging] Project on the current estimated SD67 habitat.

As a result of the proposed activities in the POW LLA Project, WAAs 902, 1105, 1106, 1107, 1108, 1209, 1210, 1211, 1212, 1213, 1316, 1323, 1524, 1526, and 5015 all retain more than 80 percent of the estimated 1954 SD67 habitat (48 percent of project area WAAs). Of these WAAs, only two retain less than 90 percent of the estimated 1954 SD67 habitat.

Post-project WAAs with between 60 to 80 percent of the estimated 1954 SD67 habitat include 901, 1214, 1318, 1319, 1525, 1528, and 1529 (23 percent of project area WAAs).

Post-project WAAs with between 50 to 60 percent of the estimated 1954 SD67 habitat include 1421, 1527, and 1531 (10 percent of project area WAAs).

⁵⁴ FEIS at 181.

⁵⁵ See, e.g., id. at 191, 195-98, 204-06, 212-14, 241, 246-47.

⁵⁶ See, e.g., id. at 184-85, 191, 195-96, 204-05, 250-251.

Post-project WAAs with between 30 to 50 percent of the estimated 1954 SD67 habitat include 1003, 1332, 1420, and 1422 (13 percent of project area WAAs).

Post-project WAAs with less than 30 percent of the estimated 1954 SD67 habitat include WAA 1315, 1317, and 1530 (about 10 percent of the project area WAAs).

Alternative 2 includes wildlife centric prescriptions for harvest activities within 5 miles of subsistence communities within the project area (WAAs 1315, 1317, 1318, 1420, 1421, 1422, 1525, 1529, and 1530).

Alternative 3 allows for 25 percent removal by single tree selection (STS) for old-growth harvest on south-facing stands below 800 feet in elevation in WAAs with 10 percent or more deer harvested of the estimated [deer habitat capability (DHC)]: 1214, 1315, 1317, 1318 and 1420. Alternative 5 allows no harvest of old-growth harvest in south-facing stands below 800 feet in elevation. The proposed timber harvest mitigation in Alternatives 2, 3, and 5 will help to offset the effects of harvest of SD67 habitat.⁵⁷

In one final example, the FEIS describes the direct and indirect impacts to wolves as follows:

	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 5
WOLF	"Alternative 2 proposes	"Alternative 3 proposes	"Alternative 5 proposes
MORTALITY	to build about 35 miles of NFS road and 129 miles of temporary road at the project area scale. It is unknown where on the landscape the road building would occur." ⁵⁸	to build about 48 miles of NFS road and about 175 miles of temporary road at the project area scale. It is unknown where on the landscape the road building would	to build about 49 miles of NFS road and about 180 miles of temporary road at the project area scale. It is unknown where on the landscape the road building would
		occur." ⁵⁹	occur." ⁶⁰

⁵⁹ Id.

⁶⁰ Id.

⁵⁷ FEIS at 212.

⁵⁸ *Id.* at 234.

WOLVES	"Alternative 2 includes	"In WAAs with 10	"Alternative 5 we would
	timber harvest	percent or more deer	propose no harvest in
	mitigation in timber	harvested of the	south-facing stands
	harvest polygons within	estimated DHC, allow	below 800 feet in
	5 miles of a subsistence	only 25 percent removal	elevation in WAAs with
	community in WAAs	by single tree selection	10 percent or more deer
	with 10 percent or more	(STS) for old-growth	harvested of the
	deer harvested of the	harvest on south-facing	estimated DHC (WAAs
	estimated DHC. This	stands below 800 feet in	1214, 1315, 1317, 1318,
	would occur in WAAs	elevation. This would	and 1420). WAAs 1315,
	1214, 1315, 1317, 1318,	occur in WAAs 1214,	1317, and 1420 are also
	and 1420. See discussion	1315, 1317, 1318, and	areas where more than
	on deer habitat above.	1420. WAAs 1315,	50 percent of the
	See discussion above for	1317, and 1420 are also	original deep snow deer
	impacts to non-winter,	areas where more than	habitat has been
	average snow, and deep	50 percent of the	harvested. This
	snow deer habitat and	original deep snow deer	mitigation will help to
	the effects of young-	habitat has been	offset the effects to deer
	growth treatments and	harvested. In Alternative	habitat capability. These
	harvest."61	3, effects to DHC in	WAAs may also include
		these three WAAs	other mitigation
		(1315, 1317, and 1420)	measures such as the
		would be mitigated by	Legacy Standard and
		the restrictions in these	Guideline or peak flow
		three WAAs. These	rate measures (see Issue
		WAAs may also include	5). See discussion above
		other mitigation	for impacts to non-
		measures such as the	winter, average snow,
		Legacy Standard and	and deep snow deer
		Guideline or peak flow	habitat and the effects of
		rate measures (See Issue	young-growth
		5). See discussion above	treatments and harvest.
		for impacts to non-	Alternative 5
		winter, average snow,	incorporates the Wolf
		and deep snow deer	Plan in its entirety." ⁶³
		habitat and the effects of	
		young-growth	
		treatments and harvest.	
		Alternative 3	
		incorporates portions of	
		the Wolf Plan." ⁶²	

⁶¹ *Id.* at 225.

⁶² *Id.* at 225

⁶³ *Id.* at 226.

As these examples demonstrate, the Forest Service's condition-based analysis is meaningless because the FEIS describes generic direct and indirect impacts from logging or roadbuilding but fails to explain, disclose, and analyze the actual direct and indirect effects associated with the implementation of the Project in any particular area at any given time. And in other cases, the FEIS simply catalogs the amount of habitat remaining without explaining the consequences of the habitat loss on birds, wildlife, subsistence users, and communities. The FEIS provides none of the detailed information that must be in a project-level analysis, meaning the Forest Service fails to assess the direct and indirect project-level impacts prior to authorizing the Project.⁶⁴

In so doing, the Forest Service acts contrary to the admonishment of the Ninth Circuit, which previously faulted the agency for failing to provide meaningfully detailed information in a landscape level analysis. The Court explained the agency "stymied the public's ability to challenge agency action" by providing only "paltry information" that "d[id] not provide the information necessary to determine how specific land should be allocated to protect particular habitat important to . . . wildlife."⁶⁵ The Court rebuked the Forest Service for failing to provide site-specific information because "the public [is] limited to two-dimensional advocacy— interested persons c[an] argue only for the allocation of more or less land" for a particular use, "but not for the protection of particular areas."⁶⁶ By depriving the public of a detailed, project-specific analysis, the agency "does not allow the public to 'play a role in both the decisionmaking process and the implementation of that decision."⁶⁷

In sum, the FEIS violates NEPA because the Forest Service fails to examine the direct or indirect impacts of the Prince of Wales Logging Project (or indeed to even explain which are direct and which are indirect effects). NEPA requires the agency to analyze the site-specific impacts and that analysis is not in the FEIS. For these reasons, the agency violates NEPA.

III. THE FOREST SERVICE'S CONDITION-BASED NEPA APPROACH FAILS TO ASSESS CUMULATIVE IMPACTS.

The Forest Service also fails to consider the cumulative impacts of the Prince of Wales Logging Project in violation of CEQ's NEPA regulations.⁶⁸ The agency must address those "impacts which result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions"⁶⁹ taken by the agency or others, including all of the

⁶⁴ As explained below, the 2016 Amended Forest Plan requires that some of this site-specific information be provided in unit and road cards that must be included with the DEIS and FEIS. The Forest Service violated those requirements by failing to providing any of the information. *Infra* pp. 27-31.

⁶⁵ WildEarth Guardians v. Montana Snowmobile Ass'n, 790 F.3d 920, 927 (9th Cir. 2015)
⁶⁶ Id

⁶⁷ Id. at 928 (quoting Methow Valley Citizens Council, 490 U.S. at 349).

⁶⁸ 40 C.F.R. § 1508.25(a)(2).

⁶⁹ *Id.* § 1508.7.

historical, current, and future logging on Prince of Wales. The agency, however, provides no meaningful explanation of the cumulative consequences on Prince of Wales Logging Project (*e.g.*, Will the Prince of Wales flying squirrel continue to persist and, if so, at what population levels? Will the Alexander Archipelago wolf remain at sustainable population levels on Prince of Wales Island or in Game Management Unit 2 (GMU)?). As explained below, in most cases, the FEIS's cumulative impacts analysis amounts to nothing more than a catalog of percentages of how much habitat will remain, rather than an explanation of the impacts on species, hunters, and communities.

With regard to the Alexander Archipelago wolf, the FEIS devotes only one paragraph to describe the cumulative effects due to the loss of habitat from the Prince of Wales Logging Project:

Harvest on non-NFS lands would move both young-growth acres and old-growth into the early seral stage, assuming clearcut harvest would be used. It is assumed that while some acres of young-growth on non-NFS land would continue to move from early seral stage stands into stem exclusion stands, other acres would likely be treated in some way that would improve wildlife habitat over the current condition. The amount of acres that would be treated is unknown, but any acres converted from stem exclusion back into the early seral stage would be assumed to provide a beneficial effect to deer and thus wolves.⁷⁰

The FEIS provides only an eight-sentence description of the cumulative effects on wolf mortality.⁷¹ The FEIS ultimately admits: "Overall, 89 percent of the [2.3 million acre] project area [wildlife analysis areas] have some level of wolf mortality concern as defined by Person and Logan 2012."⁷² The FEIS, however, never explains how many wolf packs will remain after the Project is implemented and whether the Forest Service believes any of those wolf packs will be sustainable.

Elsewhere the FEIS purports to describe the Project's cumulative impacts on deer and marten, deep snow habitat but never even mentions the resulting impacts on deer or marten:

⁷⁰ FEIS at 228.

⁷¹ *Id.* at 234.

⁷² *Id.* at 235.

For the project area as a whole, about 8 percent of POG is low elevation [high-volume productive old-growth (HPOG)] on south-facing stands. Using that percentage for estimated harvest on non-NFS lands, about 7,518 acres of this habitat type could be harvested in addition to the [Prince of Wales Logging] Project; this would result in the project area having about 54 percent remaining of the original estimated HPOG below 800 feet elevation on south-facing stands.

WAAs that remain above the 70 percent of the original deep snow habitat level include WAAs in Wilderness, LUD II and other non-development LUDs, and some WAAs that have less proposed harvest. These WAAs include 901 (86 percent), 902 (97 percent), 1105 (82 percent), 1108 (99 percent), 1209 (92 percent), 1210 (91 percent), 1212 (97 percent), 1316 (100 percent), 1323 (75 percent), 1524 (100 percent), 1526 (82 percent), 1528 (78 percent), and 5015 (100 percent).

WAAs with between 50 and 70 percent of the estimated 1954 deep snow habitat include WAAs 1107 (61 percent), 1211 (59 percent), 1213 (65 percent), 1319 (53 percent), 1332 (64 percent), and 1529 (61 percent).

WAAs with between 30 and 50 percent of the estimated 1954 deep snow habitat include WAAs 1003 (43 percent), 1214 (31 percent), 1421 (36 percent), and 1527 (40 percent).

WAAs with less than 30 percent of the estimated 1954 deep snow habitat include WAAs 1106 (29 percent), 1315 (20 percent), 1317 (13 percent), 1318 (15 percent), 1422 (21 percent), 1525 (19 percent), 1530 (28 percent), and 1531 (26 percent). These WAAs are all estimated to have less than 30 percent of the estimated original deep snow habitat remaining. This is the threshold below which where Thompson and Harestad 1994 has said marten are absent.

The GIS calculations for WAA 1420 for deep snow habitat show that all the deep snow habitat in this WAA could be lost.

Timber harvest mitigation measures would be applied on NFS lands (Alternatives 3 and 5) (see direct and indirect effects above). WAAs 1315, 1317, 1318, 1420, 1422, 1525, 1529, and 1530 all would have wildlife centric prescriptions applied within 5 miles of subsistence communities in Alternative 2. On NFS lands, WAAs 1003, 1214, 1315, 1317, 1420, 1422, 1525, 1529, and 1530 are WAAs that include VCUs where the Legacy Standard and Guideline will be applied, requiring the retention of structure in harvested stands over

20 acres in size. Peak flow rate restrictions would occur in Alternatives 3 and 5 in WAAs 1003, 1214, 1315, 1317, 1318, 1420, 1421, 1422, 1525, 1530, and 1531.

The proposed young-growth treatments and harvest on both NFS land and non-NFS lands as well as the timber harvest mitigation measures in some WAAs on NFS lands could help to offset some of these effects.

Activities on both NFS and non-NFS lands would contribute to the cumulative effects; see Appendix C.⁷³

Consistently, the FEIS purports to describe the cumulative effects of the Project on habitat types⁷⁴ and a handful of species while ignoring others completely,⁷⁵ but the discussions amount to nothing more than a catalog of wildlife analysis areas with varying percentages of habitat remaining. The Forest Service never even mentions the species in most cases or describes the condition of those populations after implementation of the Project.

Elsewhere, the FEIS provides nothing more than a "copy and paste" explanation. For example, the FEIS provides a virtually identical one-paragraph description of the cumulative effects of roads on watershed function and aquatic resources:

	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 5
ROADS	"Project road building	"Project road building	"Project road building
	brings the total up to	brings the total up to	brings the total up to
	4,408 miles of road in	4,408 miles of road in	4,385 miles of road in
	the project area (Table	the project area (Table	the project area (Table
	29). Cumulatively, 907	29). Cumulatively, 907	29). Cumulatively, 907
	miles of road will be	miles of road will be	miles of road will be
	located within 300-feet	located along fish	located along fish
	of fish streams. An	streams on all lands. An	streams. An additional
	additional 432 fish	additional 432 fish	432 fish stream
	stream crossings are	stream crossings are	crossings are proposed,
	proposed, bringing the	proposed, bringing the	bringing the total to
	total to 1,809 fish stream	total to 1,809 fish stream	1,802 fish stream
	crossings in the project	crossings in the project	crossings in the project
	area (Table 30). Roads	area (Table 30). Roads	area (Table 30). Roads
	can cause moderate	can cause moderate	can cause moderate

⁷³ FEIS at 206-07.

⁷⁵ See. e.g., *id.* at 189-99 (goshawks, marbled murrelets, Prince of Wales flying squirrels, and Prince of Wales spruce grouse); *id.* at 214 (Brown creepers and the endemic bat Keen's myotis).

⁷⁴ See, e.g., *id.* at 182 (productive old-growth habitat); *see also id.* at 178 (non-winter deer habitat).

adverse cumulative effects on aquatic resources by increased sedimentation, and these	adverse cumulative effects on aquatic resources by increased sedimentation; these	adverse cumulative effects on aquatic resources by increased sedimentation, and these
effects can be minimized	effects can be minimized	effects can be minimized
by following Activity	by following Activity	by following Activity
Cards." ⁷⁶	Card direction." ⁷⁷	Card direction."78

The FEIS's entire discussion of cumulative impacts amounts to the generic assertion that roads can cause adverse cumulative effects on aquatic resources. The Forest Service, however, never explains what will happen in this particular situation in any given location.

As these examples reveal, the Forest Service's cumulative effects analysis amounts to little more than a recitation of the percent or amount of habitat that the agency expects will remain after the Prince of Wales Logging Project. The agency never explains the resulting consequences for a particular species or a particular area due to that habitat loss. The FEIS states some wildlife analysis areas "could be at greater risk for not being able to support species that depend on [high volume productive old growth]."⁷⁹ Yet the agency never explains, for example, the agency's expectations for which species will or will not remain sustainable after full implementation. The Forest Service also fails to explain whether or how site-specific logging and roadbuilding decisions will avoid risks to those wildlife populations or what the cumulative impacts of such siting decisions would be as logging continues over the 15-year period of the Project.

In the end, the Forest Service's entire approach to the cumulative impacts of the Prince of Wales Logging Project is inconsistent with NEPA. The agency fails to provide any site-specific or species-specific cumulative impact analysis, opting instead for empty disclosures of percentages and numbers. In *Natural Resources Defense Council v. United States Forest Service*, the Court faulted the Forest Service for providing empty disclosures that lacked any analysis, explaining the agency "d[id] not disclose the effect" of continued logging on the Tongass and "d[id] not give detail on whether or how to lessen the cumulative impact" of the logging.⁸⁰ For all of these reasons, the FEIS violates NEPA's obligations regarding cumulative impacts analysis.

IV. THE FEIS'S ALTERNATIVES ANALYSIS VIOLATES NEPA.

"Under NEPA's applicable regulations, a federal agency's EIS must '[r]igorously explore and objectively evaluate all reasonable alternatives [to a proposed action], and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been

⁷⁶ FEIS at 159.

⁷⁷ *Id.* at 163.

⁷⁸ *Id*. at 165.

⁷⁹ *Id*. at 197.

⁸⁰ Natural Res. Def. Council v. U.S. Forest Serv., 421 F.3d 797, 815 (9th Cir. 2005).

eliminated.³⁷⁸¹ An agency's consideration of alternatives becomes meaningless if the agency arbitrarily constrains the range of alternatives considered and fails to consider alternatives that avoid the adverse effects of the proposed action, frustrating NEPA's goal of protecting the environment.⁸² As the Ninth Circuit has made clear, courts "have repeatedly recognized that if the agency fails to consider a viable or reasonable alternative, the EIS is inadequate.³⁸³

As explained below, and discussed in the DEIS Comment Letter,⁸⁴ the FEIS violates NEPA because the Forest Service fails to analyze reasonable alternatives to the Prince of Wales Logging Project.

A. <u>The Forest Service's Condition-Based Analysis Fails to Consider Site-Specific</u> <u>and Temporal Alternatives.</u>

The Prince of Wales Logging Project is a single decision to authorize logging projects and road construction across vast swaths of Prince of Wales Island and the adjacent islands over the next 15 years. The FEIS violates NEPA because it fails to examine any alternatives to the location, timing, sequencing, and sizes of the specific logging and road construction activities the decision will authorize.

Given the Forest Service's reliance on the "condition-based" analysis, the agency never describes the location, configuration, sizes, and timing of the logging and road construction activities. The FEIS reiterates that the details regarding the logging will only come after the agency approves the Prince of Wales Logging Project:

The DEIS contains maps showing the specific areas (context) where potential commercial timber harvest and other activities may occur. No alternative will harvest all of the stands identified (DEIS, p. 20). No activities will occur outside of the areas delineated on the maps, with the exception of invasive plant removal on non-NFS lands at the request of the landowners. Detailed maps and information will be provided during implementation when specific harvest units are identified during activity development. The Implementation Process specifically describes additional opportunities for public input and involvement (Appendix B-1). The time frame for implementation is 15 years. The site-specific areas where projects may occur and the

⁸¹ Se. Alaska Conservation Council v. Fed. Highway Admin., 649 F.3d 1050, 1056 (9th Cir. 2011) (quoting 40 C.F.R. § 1502.14(a)).

⁸² See Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1123 (9th Cir. 2002); Cal v. Block, 690 F.2d 753, 765-69 (9th Cir. 1982).

⁸³ Se. Alaska Conservation Council, 649 F.3d at 1056.

⁸⁴ See DEIS Comment Letter at 5-7.

defined time frame give the resource specialists specificity to analyze the activities proposed in the action alternatives.⁸⁵

Thus because, the Forest Service will not make decisions about when, where, and how much habitat will be logged (or where roads will be built) until some undisclosed point in the future, the FEIS fails to analyze alternatives to those specific logging and road construction activities.⁸⁶

For example, the Forest Service fails to examine the impacts and alternatives to logging any particular watershed or forgoing logging in favor of improved habitat connectivity in a particular location. Similarly, the agency fails to examine variations in the timing of the logging projects and the sequencing of timber sale projects on any particular portion of the Prince of Wales project area (*e.g.*, will a given area experience repeated years of adverse impacts, etc.). The FEIS also fails to consider whether the agency will allow a particular sale for export as compared to domestic processing (*e.g.*, might a smaller logging project in a particular area support a larger number of Alaskan jobs with fewer adverse impacts). With regard to roads, the FEIS fails to analyze the impacts of alternatives to particular roads and routes (*e.g.*, building a permanent road versus a temporary road in any particular location, varying lengths and locations of that road, taxpayers paying for the roads instead of the timber operator, etc.). Finally, the FEIS fails to examine the site-specific impacts on communities and subsistence users arising from alternative locations, sizes, and timing of any particular timber sale project and road building.

The FEIS amounts to little more than a disclosure that the Forest Service is approving 15 years of logging and road building somewhere within a 2.3 million acre project area. The Forest Service violates NEPA by refusing to examine alternatives to individual logging and/or road construction projects in the FEIS (*e.g.*, location, distribution, connectivity, sizes, characteristics, timing, etc.). The agency's all or nothing approach skews the consideration of alternatives in favor of the environmentally-damaging generic logging and road building alternatives, entirely frustrating NEPA's goals of fostering informed decision making and protecting the environment.⁸⁷ In so doing, the Forest Service violates NEPA.

B. <u>The Forest Service Fails to Analyze Different Action Alternatives to Achieve the</u> <u>Transition Outlined in the 2016 Amended Forest Plan.</u>

The Forest Service violates NEPA because the FEIS fails to examine alternatives that implement the 2016 Amended Forest Plan's objective to transition the Tongass away from a predominant old-growth industry. As explained below, the agency fails to consider any alternatives that vary the amount and timing of old-growth timber sales over the 15 years.

⁸⁵ FEIS, Appendix D at D-14.

⁸⁶ FEIS at 181 ("The specific location and amount of harvest in each [wildlife analysis area] would be determined during implementation and vary by alternative.").

⁸⁷ See Kootenai Tribe, 313 F.3d at 1123 (NEPA's purpose "is first and foremost to protect the natural environment"); *Block*, 690 F.2d at 765-69 (9th Cir. 1982) (considering a range of alternatives becomes meaningless if the range is skewed by arbitrary constraints).

The Forest Service adopted the 2016 Amended Forest Plan in response to the Secretary of Agriculture's Memorandum 1044-009,⁸⁸ which directed the Tongass National Forest "to expedite the transition away from old-growth timber harvesting and towards a forest products industry that uses predominantly second-growth . . . forests."⁸⁹

The 2016 Amended Forest Plan contains several objectives to accomplish the Secretary's directed transition, including:

- "O-YG-01: During the 15 years after plan approval, the amount of young-growth offered would gradually increase to exceed 50 percent of the timber offered annually."⁹⁰
- "O-YG-02: During the 15 years after plan approval, offer increasing annual volumes of economically viable young-growth timber. Old-growth timber harvest would gradually be reduced to an average of 5 million board feet (MMBF) annually, to support Southeast Alaska mills."⁹¹

The 2016 Amended Forest Plan makes clear that "[s]pecific activities and projects will be planned and implemented to carry out the direction in this Forest Plan."⁹²

Groups raised several concerns regarding the Forest Plan FEIS and its consideration of alternatives at the forest plan stage.⁹³ Among those concerns, groups explained that all of the alternatives in the 2016 Amended Forest Plan FEIS offered the same purported transition out of old-growth logging to bring about the transition, including: (1) all of the action alternatives lacked any means of limiting old-growth timber sales to bring about the transition; (2) all of the action alternatives established a projected timber sale quantity of 46 MMBF per year; (4) all of the alternatives contemplated continued application of the Limited Export Policy.⁹⁴ The undersigned reiterate these concerns given the Forest Service's project-level decision-making manifests these failings.

Now at the implementation stage, the Forest Service again fails to consider any alternatives that contemplate different approaches to the transition with regard to the Prince of Wales Logging Project (*e.g.*, limiting the amount of old-growth logging every year on a declining basis, etc.).

⁹⁰ 2016 Amended Forest Plan at 5-2.

⁹¹ *Id.* at 5-3.

⁹² *Id.* at 1-2.

⁹⁴ See SEACC Forest Plan Objection at 12.

⁸⁸ 2016 Amended Forest Plan FEIS at 1-8 to 1-9; *see also* PR 769_01_000046 at PDF 1 (U.S. Department of Agriculture, Office of the Secretary, Secretary's Memorandum 1044-009 Addressing Sustainable Forestry in Southeast Alaska at 1-5 (July 2, 2013)) (Secretary's Transition Memorandum).

⁸⁹ 2016 Amended Forest Plan FEIS at 1-9; *see generally* Secretary's Transition Memorandum.

⁹³ See SEACC Forest Plan Objection at 12-19; ARD Forest Plan Objection at 29-40.

All of the action alternatives allow for old-growth logging across the same timeframe (e.g., the entire length of the Project), instead of allocating amounts to varying timeframes for example. They are all based on the same market demand projections, despite the fact the agency itself acknowledges it cannot predict future market demand with any degree of reliability more than a few years out. And finally, all of the action alternatives contemplate the same treatment with regard to the Limited Export Policy.

The Forest Service also arbitrarily rejects calls to evaluate alternatives that would offer no oldgrowth sales,⁹⁵ as well as an alternative that would "limit old-growth to 5 MMBF . . . annually for small purchasers and cottage industry only."⁹⁶ The agency explains a no old-growth alternative "was eliminated because timber volumes under this alternative would not sustain a local timber industry to meet the purpose and need of this project . . . [and] [i]t does not meet the need for a sustainable level of forest products to contribute to the economic viability of Prince of Wales area communities."⁹⁷ The agency explains that it rejected the five MMBF annual alternative because "Alternatives 3 and 5 have a reduced amount of old-growth harvest that would support local small mills or 'cottage industry' while providing a limited time for larger mills to increase their utilization of young-growth or locate another source of old-growth to supplement their timber supply."⁹⁸ The FEIS provides no support for these conclusions, rending the agency's treatment of alternatives arbitrary.

In short, the Forest Service violates NEPA because the FEIS and 2016 Amended Forest Plan FEIS unlawfully analyze only action alternatives that are virtually identical in fundamental ways. As the Ninth Circuit has explained, agencies cannot make an informed decision on a project's environmental impacts when "[t]here is no meaningful difference between the . . . alternatives considered in detail[.]"⁹⁹ The Forest Service's failures render the FEIS and the 2016 Amended Forest Plan FEIS unlawful under NEPA.

C. <u>The FEIS's Action Alternatives Are Too Similar.</u>

The FEIS also violates NEPA because the action alternatives are too similar to one another in fundamental ways with regard to logging and road construction activities.

The Forest Service acknowledges the total logging volumes are virtually identical amongst the alternatives considered in the FEIS. In defending the agency's refusal to include a cost-benefits analysis for logging, the FEIS states:

⁹⁵ FEIS at 35.

⁹⁶ Id.

⁹⁷ Id.

⁹⁸ Id.

⁹⁹ W. Watersheds Project v. Abbey, 719 F.3d 1035, 1051 (9th Cir. 2013).

The Forest Service administrative costs for timber harvest projects were not included in the DEIS because of the closeness of the range of timber volume among alternatives from 604 million board feet (MMBF) for Alternative 5 to 656 MMBF for Alternative 2 would not result in a useful measure to compare alternatives.¹⁰⁰

Similarly, the agency's analysis of alternatives with regard to roads is almost uniform. Alternatives 3 and 5 contemplate 48 and 49 miles of new Forest Service roads, respectively.¹⁰¹ They contemplate 173 miles and 180 miles of temporary roads, respectively.¹⁰² Alternative 2 varies from these only slightly with 35 miles of new roads and 129 miles of temporary roads.¹⁰³

The young-growth volume alternatives are essentially the same, if not identical in most cases. For example, Alternatives 3 and 5 provide for the identical volume of young-growth logging, 529 MMBF.¹⁰⁴ They are also identical with regard to the total acreage of young-growth logging, 36,670 acres.¹⁰⁵ They also provide identical acres of even-aged and uneven-aged management, 15,630 and 21,040 acres, respectively.¹⁰⁶

NEPA requires the Forest Service to examine meaningful differences between the action alternatives. The agency should have examined differences in the sizes of individual sales, the locations of those sales, and the timing and sequence of the sales. With regard to roads, the agency should have evaluated how varying individual road alternatives would serve the multiple uses. The agency also should have considered how varying approaches to total volume alternatives affected these choices.

Instead, the FEIS's alternatives analysis offers little, if any, variation in many instances. The Forest Service's alternatives analysis is unlawful under NEPA.

V. THE FOREST SERVICE'S CONDITION-BASED NEPA APPROACH FAILS TO PROVIDE REQUIRED INFORMATION REGARDING MITIGATION MEASURES.

Finally, the FEIS violates NEPA because it fails to address the effects of, and need for, sitespecific mitigation measures. As with the various impact analyses discussed above, this failure stems from the Forest Service's reliance on "condition-based" analysis. The agency's failure to explain when, where, and how much logging and roadbuilding will take place in any given

 103 *Id*.

- ¹⁰⁴ *Id*.
- ¹⁰⁵ *Id*.

¹⁰⁶ *Id*.

¹⁰⁰ FEIS, Appendix D at D-13.

¹⁰¹ *Id*. at 23.

 $^{^{102}}$ *Id*.

location means the agency is also failing to assess the necessary mitigation in that particular location. This renders the FEIS unlawful.

NEPA requires agencies to consider potential mitigation measures during the planning process.¹⁰⁷ When an agency omits a discussion of mitigation measures in an EIS, it undermines NEPA's "action-forcing" purpose and leaves the public unable to evaluate the adverse effects of a proposed action and whether those effects are critical to the action.¹⁰⁸

Here, the FEIS acknowledges that "[r]esource concerns and mitigation measures may be refined further . . . during final project design when specific activity locations and details are identified."¹⁰⁹ Any mitigation measures developed at that stage, however, would occur after the completion of the NEPA process and would therefore not satisfy the statute's requirements.

The Forest Service's meager attempts to discuss generic mitigation measures in the FEIS proves meaningless without spatially and temporally specific information. The FEIS only references *possible* mitigation measures, but never explains or commits to specific measures in particular locations or watersheds because the agency has not identified the logging and roadbuilding locations.¹¹⁰ At best, the FEIS provides generic mitigation measures for broad categories of activities.¹¹¹ The Activity Cards explain, for example, "mitigation actions may be required,"¹¹² the agency will "determine ways to lessen disturbance to wildlife,"¹¹³ and "other mitigation measures" will be applied.¹¹⁴ None of these are spatially or temporally specific or even identified with particularity, and, most importantly, the Forest Service fails to commit to taking any of these measures. This leaves site-specific mitigation unexamined.

Thus, the FEIS fails to consider mitigation measures adequately, in contravention of NEPA and its regulations.

* * *

In sum, the Forest Service's "condition-based" approach to the Prince of Wales Logging Project is unlawful. NEPA's fundamental purpose is to guarantee that the Forest Service's "hard look"

¹⁰⁹ FEIS at x.

¹¹⁰ See, e.g., *id.* at 241 (discussing need for botanical mitigation); *id.* at 243 (discussing need for historic site mitigation).

¹¹¹ See, e.g., *id.*, Appendix A at A-17 (describing three categories of streams that could be located in harvest areas and providing bullet points with potential mitigation measures).

¹¹² *Id.*, Appendix A at A-44.

¹¹³ Id., Appendix A at A-71.

¹¹⁴ *Id.*, Appendix A at A-30.

¹⁰⁷ 40 C.F.R. § 1502.16(h); 1508.25(b)(3); 1508.20 (defining various forms of mitigation).

¹⁰⁸ Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989).

evaluation of site-specific impacts, alternatives, and necessary mitigation be completed and disclosed to the public and the decision-maker *before* the agency makes "a decision to authorize integrated management action on Prince of Wales Island over the next 15 years."¹¹⁵ "NEPA promotes its sweeping commitment to 'prevent or eliminate damage to the environment and biosphere' by focusing Government and public attention on the environmental effects of *proposed* agency action."¹¹⁶ "By so focusing agency attention, NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct."¹¹⁷ "Similarly, the broad dissemination of information mandated by NEPA permits the public and other government agencies to react to the effects of a proposed action at a meaningful time."¹¹⁸ The Forest Service's entire analytical approach to the Prince of Wales Project is inconsistent with the fundamental principles of NEPA and contrary to almost 50 years of case law.

UNLAWFUL CONDITION-BASED NFMA DECISION-MAKING

NFMA requires the Forest Service to meet multiple use objectives including to "provide for diversity of plants and animal communities, based on the suitability and capability" of each national forest.¹¹⁹ The agency's "duty to protect wildlife" imposes a "substantive limitation on timber production."¹²⁰ Here, the Forest Service plans to approve the single largest logging project in more than a generation, but the agency fails to justify its balancing of logging and other multiple use objectives, under NFMA or the other substantive statutes governing timber sales,¹²¹ based on the condition-based analysis.

The Forest Service regulations implementing NFMA's requirement to provide for diversity require the agency to manage fish and wildlife habitat "to maintain viable populations of existing native and desired non-native vertebrate species in the planning area."¹²² The agency characterizes a viable population, for planning purposes, "as one which has the estimated

¹¹⁷ *Id.* (citation omitted).

¹¹⁸ *Id*.

¹¹⁹ 16 U.S.C. § 1604(g)(3)(B).

¹²⁰ Seattle Audubon Soc. v. Moseley, 798 F. Supp. 1484, 1489 (W.D. Wash. 1992), aff'd sub nom., Seattle Audubon Soc. v. Espy, 998 F.2d 699 (9th Cir. 1993) (quoting Charles F. Wilkinson & H. Michael Anderson, Land and Resource Planning in the National Forests, 64 Or. L. Rev. 1, 296 (1985)).

¹²¹ See 16 U.S.C. § 1604(e) (National Forest Management Act); *id.* § 529 (Multiple-Use Sustained-Yield Act); *id.* § 539d(a) (Tongass Timber Reform Act); *id.* § 3120(a)(3)(A) (Alaska National Interest Lands Conservation Act); *see also Natural Res. Def. Council*, 421 F.3d at 808-09 (explaining balancing of timber and other goals in the Tongass).

¹²² 36 C.F.R. § 219.19 (2000).

¹¹⁵ *Id.* at Abstract.

¹¹⁶ *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371 (1989) (quoting 42 U.S.C. § 4321) (emphasis added).

numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area."¹²³

This means the Forest Service must "insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area."¹²⁴ And NFMA "requires planning for the entire biological community,"¹²⁵ rather than only select species.

The 2016 Amended Forest Plan incorporates these viability obligations: "Provide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable non-native species well-distributed in the planning area (*i.e.*, the Tongass National Forest)."¹²⁶ It incorporates the Forest Service planning regulations and extends the "viable populations" mandate to "implementation . . . of forest plans," such as through timber sales.¹²⁷ All "[r]esource plans, permits, contracts and other instruments for the use and occupancy of National Forest System lands" must be consistent with the applicable Forest Plan.¹²⁸ Accordingly, the agency adopts the obligation to "[m]aintain the abundance and distribution of habitat . . . to sustain viable populations" as one of the planning goals for the Project, "especially old-growth forests."¹²⁹

Here, the Forest Service's condition-based based approach to the Prince of Wales Logging Project renders the decision arbitrary and unlawful under NFMA and the other substantive statutes governing timber sale projects.¹³⁰ First, the agency violates standards established in the 2016 Amended Forest Plan to understand, disclose, and mitigate the adverse impacts of logging and roadbuilding. Second, the FEIS's condition-based analysis fails to provide a rational basis for the agency's conclusions regarding competing interests, rendering the decision arbitrary and capricious.

¹²⁴ *Id*.

¹²³ *Id*.

¹²⁵ Seattle Audubon Soc'y v. Moseley, 798 F. Supp. 1473, 1483 (W.D. Wash. 1992), aff'd sub nom., Seattle Audubon Soc'y v. Espy, 998 F.2d 699 (9th Cir. 1993).

¹²⁶ See 2016 Amended Forest Plan at 4-85.

¹²⁷ 36 C.F.R. § 219.27(a)(6) (1982); see 2016 Amended Forest Plan at 2-6.

¹²⁸ 16 U.S.C. § 1604(i).

¹²⁹ FEIS at 5.

¹³⁰ See DEIS Comment Letter at 14-27; see also id. at 27-49 (species specific-considerations).

I. THE FOREST SERVICE VIOLATES NFMA AND THE 2016 AMENDED FOREST PLAN.

The Forest Service violates NFMA when it acts contrary to a governing forest plan.¹³¹ Standards established in forest plans "are binding limitations typically designed to prevent degradation of current resource conditions."¹³² Thus, "[a] site-specific project must comply with the standards set forth in the governing forest plan, and a project's deviation from a standard requires amendment to the forest plan."¹³³

A. <u>The Forest Service Violates Forest Plan Standards Requiring Site-Specific Timber</u> and Road Resource Data, Including Unit Cards and Road Cards.

The 2016 Amended Forest Plan establishes standards that require the Forest Service to provide site-specific information regarding the Prince of Wales Logging Project to inform the agency's environmental analysis prior to approval and prevent habitat degradation. As explained below, the agency violates those standards, rendering the Project unlawful under NFMA.¹³⁴

The 2016 Amended Forest Plan defines a "standard" as follows:

A course of action or level of attainment required by the Forest Plan to promote achievement of goals and objectives.

A mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. (36 CFR 219.12)[.]¹³⁵

It explains that:

Standards in Chapters 3 and 4, which can usually be identified by words such as 'must' or 'will,' are *mandatory requirements or minimums that must be met*.

¹³¹ See 16 U.S.C. § 1604(i) ("Resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans.").

 ¹³² All. for the Wild Rockies v. United States Forest Serv., 907 F.3d 1105, 1113 (9th Cir. 2018)
 ¹³³ Id

¹³⁴ Alternatively, if one or more of these provisions is a guideline, then the agency acts arbitrarily in failing to provide the information prior to approving the Project. *Supra* pp. 31-32.

¹³⁵ 2016 Amended Forest Plan at 7-59.

Project-level analysis may determine that additional requirements beyond these minimums are necessary.¹³⁶

"The Forest Service must strictly comply with a forest plan's 'standards,' which are considered binding limitations"¹³⁷ To do otherwise, the agency violates NFMA.

With regard to logging, the 2016 Amended Forest Plan establishes standards that require the Forest Service to assess site-specific conditions, logging impacts, and mitigation and include that information in its NEPA analyses before it approves a project. For example, it states:

Timber harvest unit cards *will* document resource concerns and protection measures. The unit cards, including a map with relevant resource features, *will be provided electronically when Draft or Final NEPA documents and decisions are published*. (Consult Tongass National Forest Supplement 1909.15-2015-1.)¹³⁸

It also requires the agency to provide other site-specific "timber resource information", including "inventories, analysis of data, and input *for environmental analysis*."¹³⁹ It requires the agency to provide information to "[d]etermine operability based on *site-specific project conditions*."¹⁴⁰ The agency must evaluate "management prescriptions . . . within the project area in project design and *environmental analysis* for timber activities."¹⁴¹ It requires the agency to "[c]omplete all [silvilcultural] prescriptions *before* project implementation where implementation is defined as . . . the Final Record of Decision"¹⁴²

The Forest Service fails to provide any of the information required by these standards. The agency admits it will not even prepare unit cards until after it completes the NEPA process and a Final ROD authorizes the logging.¹⁴³ Thus, the agency has not: (1) assessed site-specific project conditions and impacts; (2) evaluated site-specific management prescriptions and silvilcultural

¹³⁶ 2016 Amended Forest Plan at 1-4 (emphasis added).

¹³⁷ All. for the Wild Rockies v. United States Forest Serv., 907 F.3d 1105, 1110 (9th Cir. 2018); see also id. at 1113 (rejecting the Forest Service's argument that its approach was "substantially similar" to the forest plan standard).

¹³⁸ 2016 Amended Forest Plan at 4-68 (TIM3.I.C) (emphasis added).

¹³⁹ *Id.* at 4-68 (TIM3.I.A) (emphasis added).

¹⁴⁰ Id. at 4-68 (TIM3.I.B) (emphasis added).

¹⁴¹ Id. at 4-68 (TIM3.I.C) (emphasis added).

¹⁴² *Id.* at 4-67 (TIM2.C) (emphasis added); *see also id.* at 4-49 (RIP2.C.1.) ("Logging engineers and aquatic specialists should conduct joint reviews of preliminary harvest unit designs to ensure that site-specific stream protection measures meet riparian objectives.").

¹⁴³ FEIS, Appendix D at D-7-8.

prescriptions; and (3) used that information to inform the agency's environmental analysis and justify its substantive decision-making.

With regard to road construction and reconstruction, the 2016 Amended Forest Plan also establishes standards that inform the environmental review and the agency's decisions. For example, "[d]uring project planning, [the Forest Service must] identify *resource concerns and site-specific mitigation measures*."¹⁴⁴ The 2016 Amended Forest Plan lists specific habitats for which impacts must be minimized.¹⁴⁵ The agency is directed to "[c]learly document these mitigation measures" prior to approval "to facilitate project implementation and monitoring."¹⁴⁶ The agency must "[p]erform route or site selection, location, geotechnical investigations, survey, and design to a technical level sufficient to meet the intended use and commensurate with both ecological objectives and the investment to be incurred."¹⁴⁷ "When stream crossings are required to harvest timber," the agency must "assess the environmental effects of road crossings versus varding corridors, and select the action of least environmental impact where practicable."¹⁴⁸ Once again, the Forest Service concedes it did not provide road cards with the DEIS or the FEIS and will not even prepare those cards until after it approves the Prince of Wales Logging Project.¹⁴⁹ The agency fails to evaluate site-specific concerns and mitigation measures of any particular road before the agency concludes the NEPA review and approves the ROD. The agency fails to assess the route and site selection, including the length and character, of any of the roads and fails to demonstrate how those individual decisions are commensurate with the ecological objectives and the investment for any given road approved by the Project. The agency fails to provide the specific road information that the 2016 Amended Forest Plan requires. In response to these concerns, the Forest Service does not dispute that the Prince of Wales Logging Project fails to adhere to the provisions of the 2016 Amended Forest Plan described in this section. Indeed, the agency's only defense is that "the Implementation Process specifically describes additional opportunities for public input and involvement" (after the NEPA review is concluded and the ROD is signed) and that "opportunity for input and feedback on the proposed activities . . . meets the intent of Forest Plan TIM3.I.C[.]"¹⁵⁰ As explained above, forest plan standards are binding limitations.

¹⁴⁴ 2016 Amended Forest Plan at 4-77 (TRAN3.I.D).

¹⁴⁵ See id. at 4-78 (TRAN4.II.A.); id. at 4-79 (TRAN4.III.A.); id. at 4-91 (WILD1.XIV.A.3.A) ("No road construction is permitted within 600 feet of a [wolf] den unless site-specific analysis indicates that local landform or other factors will alleviate potential adverse disturbance.").

¹⁴⁶ *Id.* at 4-77 (TRAN3.I.D).

¹⁴⁷ Id. at 4-77 (TRAN4.I.A.).

¹⁴⁸ *Id.* at 4-51 (RIP.II.E.5).

¹⁴⁹ FEIS, Appendix D at D-7-8.

¹⁵⁰ FEIS, Appendix D at D-7 (emphasis added). The Response to Comments ignores the remaining concerns regarding unit cards, road cards, and site-specific logging and road-building information.

In short, the Forest Service violates NFMA by failing to comply with the 2016 Amended Forest Plan's standards governing logging and road building. The Forest Service is required to provide unit and road cards and make other site-specific assessments and evaluations of timber resources, logging and road building impacts, and the necessary mitigation measures to inform the NEPA analysis and *prior* to project approval. The Forest Service fails to comply with these standards, rendering the decision unlawful under NFMA.

Alternatively, to the extent one or more of the provisions described in this section is a guideline rather than standard, then the Forest Service acts in an arbitrary and capricious manner in failing to comply and provide the information. Failing to provide this information is arbitrary because it violates longstanding agency guidance in the Forest Service Handbook for the Tongass: "Unit and road cards will be provided electronically *when Draft or Final NEPA documents and decisions are published.*"¹⁵¹ The guidance continues: "*For Draft Environmental Impact Statements (DEIS's)*... *completed unit and road shall be published on the project webpage*... in bookmarked PDF format for review by other agencies or interested parties *when the NEPA document is published.*"¹⁵² Elsewhere it explains that road cards must be developed during the NEPA process to "[d]escribe or display site specific application of required resource protection measure [d]emonstrate field knowledge pertaining to site specific Forest Plan standards and guidelines, [p]rovide a tracking tool for project implementation and monitoring, and [p]rovide road level information for the public and other agencies."¹⁵³ In this case, the Forest Service provides none of this information and, in so doing, fails to assess the project-level impacts, necessary mitigation, and alternatives prior to authorizing the Project.

Additionally, the Forest Service also acts arbitrarily because it is departing from decades of consistent agency practice regarding Tongass management without a reasonable explanation. As the Forest Service explained in the Big Thorne FEIS: "Site-specific descriptions and resource considerations for each potential harvest unit are included as unit cards."¹⁵⁴ The unit cards "describe site-specific concerns, and how these concerns would be mitigated or avoided in the design of each unit and road segment."¹⁵⁵ Prior to this project, the Forest Service prepared site-specific analyses to inform the public and affected communities of the adverse impacts of

¹⁵¹ FSH 1909.15-2015-1, Environmental Policy and Procedures Handbook, Chapter 10 (Apr. 27, 2015), 13.1 (emphasis added).

¹⁵² FSH 1909.15-2015-1, Environmental Policy and Procedures Handbook, Chapter 10 (April 27, 2015), 13.1 (emphasis added); *see also id.* at 13.2c (directing the Forest Service to "display unit-specific information necessary for project implementation on one unit card map representing the selected alternative or alternatives in a DEIS").

¹⁵³ FSH 1909.15-2015-1, Environmental Policy and Procedures Handbook, Chapter 10 (Apr. 27, 2015), 13.3; *see also id.* at 13.3a, c-e.

¹⁵⁴ Big Thorne FEIS at S-2; see also Logjam FEIS at S-1, S-7 to S-8.

¹⁵⁵ *Id.* at S-9.

logging and road building before it approved projects.¹⁵⁶ For this additional reason, the Forest Service acts arbitrarily under NFMA because it provides none of that information to explain and justify its decision.

In sum, the 2016 Amended Forest Plan requires the Forest Service must conduct a site-specific assessment, analysis of impacts and mitigation measures relating to logging and road activities to inform the NEPA review and *before* it approves the Prince of Wales Logging Project. The agency is violating those provisions and, as a result, is violating NFMA. For the same reason, the Forest Service reaches arbitrary conclusions under the other statutes governing timber sale projects on the Tongass.

B. <u>The Forest Service Fails to Provide Required Clearcutting Analyses.</u>

The Forest Service also fails to comply with the 2016 Amended Forest Plan's standards governing the site-specific impacts analysis for clearcutting. In so doing, the agency violates NFMA.

Under NFMA, the Forest Service cannot approve clearcutting unless an interdisciplinary review of "impacts on each advertised sale area has been assessed, as well as the consistency of the sale with the multiple use of the general area."¹⁵⁷ The 2016 Amended Forest Plan implements this by requiring the Forest Service to assess site-specific considerations and impacts before it authorizes clearcutting in the Tongass,¹⁵⁸ including limitations on the size of clearcuts, openings, and leave strips.¹⁵⁹ For example "[w]here it is determined by an environmental analysis that exceptions to the size limit are warranted, the actual size of openings may be up to 200 acres."¹⁶⁰ Similarly, the "[1]eave strips between openings must be of sufficient size and composition to be managed as a separate stand."¹⁶¹ Elsewhere, the 2016 Amended Forest Plan requires the agency to "[s]elect a silvicultural system that meets the resource and vegetation management objectives of the area, including objectives for biological diversity, long-term site productivity, scenic integrity, and forest health."¹⁶²

These considerations depend upon a site-specific analysis that the Forest Service fails to do in this case. Instead the agency simply asserts the logging will require clearcutting and states "[a]ll

¹⁵⁶ See, e.g., Big Thorne DEIS, Vol. III (Unit Cards 1-120), IV (Unit Cards 121-476), V (Unit Cards 500-582), VI (Road Cards); Big Thorne FEIS, Appendix C; Logjam DEIS, Appendix B (Unit Cards); Logjam DEIS, Appendix C (Road Cards); Logjam FEIS, Appendix C.

¹⁵⁷ 16 U.S.C. § 1604(g)(3)(F).

¹⁵⁸ 2016 Amended Forest Plan at 4-68 (TIM4.II).

¹⁵⁹ *Id.* at 4-68 (TIM4.III).

¹⁶⁰ *Id.* at 4-68 (TIM4.III.C).

¹⁶¹ *Id.* at 4-68 (TIM4.III.F).

¹⁶² *Id.* at 4-67 (TIM2.I.I).

alternatives include the clearcut harvest of old-growth acres."¹⁶³ Even if the Activity Cards recognize there could be some restrictions on clearcutting and the Implementation Plan contemplates further public input on site-specific factors as logging is proposed,¹⁶⁴ the Forest Service violates the forest plan provisions requiring the agency to provide the site-specific analysis before it approves the Project.

The 2016 Amended Forest Plan requires the Forest Service to assess the site-specific impacts during the environmental analysis and describe how it made particular silvicultural determinations based on the specific assessment in a given area. Here, the agency reaches only generic conclusions that cover the entire 2.3 million acre project area, rather than basing decisions and prescriptions on the site-specific analysis required by the 2016 Amended Forest Plan. For this reason, the agency violates NFMA and acts arbitrarily under the other statutes governing timber sale projects on the Tongass.

II. THE FOREST SERVICE'S CONDITION-BASED ANALYSIS RENDERS ITS DECISION-MAKING ARBITRARY UNDER NFMA AND THE OTHER LAWS GOVERNING TIMBER SALES.

As explained above, NFMA and the other statutes under which the Forest Service operates when the agency evaluates a timber sale project require the agency to balance logging objectives with other forest values such as wildlife, recreation, and subsistence.¹⁶⁵ Here, the Forest Service acts arbitrarily because the agency fails to explain when, where, and how the logging and road building authorized by the Project will occur and how the agency balances competing uses and interests in those locations and at a given time. Stated more directly, the agency fails to balance the adverse impacts caused by logging or road building in any particular location at any given time, rendering the conclusions regarding the balance of impacts and values arbitrary.

The Forest Supervisor appears to have attempted a balancing here, basing his decision to proceed with the Prince of Wales Logging Project on "tradeoffs between resource effects and benefits,"¹⁶⁶ and finding that "the Selected Alternative best addresses the issues and concerns raised because it incorporates a wide range of activities and mitigation measures to address the Purpose and Need of the project."¹⁶⁷ He acknowledged the "effects of this project on resources,

¹⁶⁶ Draft ROD at 6.

¹⁶⁷ *Id*. at 7.

¹⁶³ FEIS at 97. The agency also identifies clearcutting as a method in its Activity Cards, and advises that NFMA and the Forest Plan place some restrictions on how clearcutting can be implemented, but it does not purport to make any findings about clearcutting any particular site here either. *Id.*, Appendix A at 23, 28, 70.

¹⁶⁴ *Id.*, Appendix A at A-23, A-28, A-70; *id.*, Appendix D at D-31.

¹⁶⁵ See 16 U.S.C. § 1604(e) (National Forest Management Act); *id.* § 529 (Multiple-Use Sustained-Yield Act); *id.* § 539d(a) (Tongass Timber Reform Act); *id.* § 3120(a)(3)(A) (Alaska National Interest Lands Conservation Act); *see also Natural Res. Def. Council*, 421 F.3d at 808-09 (explaining balancing of timber and other goals in the Tongass).

including soils, wetlands, watersheds, fisheries, timber, wildlife, scenery, recreation; rare, sensitive, and invasive plants; climate change, and heritage¹⁶⁸ and the fact that the "direct, indirect, and cumulative effects associated with the project may present a significant possibility of a significant restriction of subsistence use of deer."¹⁶⁹ But his balancing was not based on the kind of site and temporally-specific information about impacts and alternatives that must underlie those choices.

The Administrative Procedure Act (APA) requires that "the agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made."¹⁷⁰ A decision is arbitrary if the agency "entirely failed to consider an important aspect of the problem" or "offered an explanation for its decision that runs counter to the evidence before the agency."¹⁷¹ Similarly, an action may be arbitrary if the record does not support the agency's reasoning.¹⁷²

For the reasons described above and in the subsistence and wildlife sections that follow,¹⁷³ the Forest Service's failure to conduct a spatially and temporally specific analysis means the agency's conclusions lack a rational connection regarding the impacts and tradeoffs of the Prince of Wales Logging Project. The agency's decision-making also ignores important aspects of the Project (*e.g.*, site-specific impacts, alternatives, etc.), fails to provide a rational connection between the facts found and the decision to proceed, and offers an explanation that runs contrary to the evidence. As such, the Forest Service's decision to approve the Prince of Wales Logging Project based on the "condition-based analysis" is arbitrary and unlawful under NFMA and the other statutes governing timber sale projects.

SUBSISTENCE

The Forest Service offers little more than bare conclusions regarding the Prince of Wales Logging Project's impacts on subsistence users over the next 15 years.¹⁷⁴ The agency cannot explain why particular adverse impacts on subsistence users are necessary because it has not even identified the adversely affected users, particular locations, or the reasonable steps the agency will take to minimize adverse impacts. The agency's meager analysis fails to provide the required ANILCA findings or NFMA justification and violates the 2016 Amended Forest Plan.

¹⁶⁹ *Id.* at 8.

¹⁷⁰ Motor Vehicle Mfrs. Ass'n of the U.S. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (quoting Burlington Truck Lines v. United States, 371 U.S. 156, 168 (1962)).

¹⁷¹ *Id.* at 43.

¹⁷² See, e.g., Ctr. for Biological Diversity v. NHTSA, 538 F.3d 1172, 1201-03 (9th Cir. 2008); Pac. Coast Fed'n of Fishermen's Ass'ns v. NMFS, 265 F.3d 1028, 1037-38 (9th Cir. 2001).

¹⁷³ Supra pp. 4-26; infra pp. 34-73.

¹⁷⁴ See DEIS Comment Letter at 23, 40-42.

¹⁶⁸ *Id*.

The 2016 Amended Forest Plan asserts an objective, in accordance with the Alaska National Interest Lands Conservation Act (ANILCA) Section 810, to "[c]ontribute to the habitat capability of fish and wildlife resources to support sustainable human subsistence and recreational uses."¹⁷⁵ Furthermore, it requires:

[T]he Forest Service shall:

In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of NFS lands, evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands, and other alternatives that would reduce or eliminate the use, occupancy, or disposition of NFS lands needed for subsistence purposes.¹⁷⁶

If an agency determines its action has a significant possibility of restricting subsistence use, then it must make the following findings: (1) the "restriction is necessary, consistent with sound management principles for the utilization of public lands," (2) the activity affects "the minimum amount of public lands necessary to accomplish the purposes of the use," and (3) "reasonable steps will be taken to minimize adverse impacts on subsistence uses and resources resulting from such actions."¹⁷⁷

To advance ANILCA's purpose, the 2016 Amended Forest Plan contains specific provisions requiring the Forest Service to account for, and protect, subsistence use needs. For example, when "assess[ing] habitat improvement project opportunities and priorities," the agency must do so based on consideration of "meet[ing] subsistence use needs."¹⁷⁸ Elsewhere, the 2016 Amended Forest Plan requires the agency to avoid siting log transfer facilities in areas of established subsistence fishing activity (among many others)¹⁷⁹ and specifically requires the agency to "seek opportunities to provide for subsistence users (*e.g.*, anchorages and shelters)," explaining "[s]uch access and facility opportunities should be identified and planned with local subsistence users."¹⁸⁰ The 2016 Amended Forest Plan requires the Forest Service to consider the particular needs of specific subsistence users and the agency fails to do so in this case, because it fails to explain where and when it plans to conduct logging and road building activities.

Here, the Forest Service acknowledges that implementation of the Prince of Wales Logging Project may significantly affect subsistence users. In the Draft ROD, the Forest Supervisor explains the "direct, indirect, and cumulative effects associated with the project may present a

¹⁷⁵ 2016 Amended Forest Plan at 3-58.

¹⁷⁶ *Id.* at 4-65.

¹⁷⁷ 16 U.S.C. § 3120(a)(3).

¹⁷⁸ 2016 Amended Forest Plan at 4-86 (WILD1.III.A.1.b).

¹⁷⁹ *Id.* at 4-81 (TRAN4.V.C.3).

¹⁸⁰ *Id.* at 4-66 (SUB.I.L.)

significant possibility of a significant restriction of subsistence use of deer."¹⁸¹ The FEIS explains the Project's "direct and indirect effects may result in a significant possibility of a significant restriction for subsistence uses of deer in some of the project area wildlife analysis areas (WAA)."¹⁸² For example, it admits that the selected alternative "would likely result in the greatest negative effect to deer habitat in that it harvests the most acres of old growth," but only suggests that impacts "could be reduced somewhat" through management—without providing any discussion of where or how it plans to do so.¹⁸³ The FEIS also states that increased road access can have negative consequences, depending on the community,¹⁸⁴ but of course, the agency fails to analyze those impacts because it has not determined where logging and road building will occur and, as a result, which communities would be affected and what negative consequences any particular community will experience.

As Donald Hernandez, a long-time resident of Point Baker and 15-year member of the Southeast Regional Subsistence Advisory Council, describes, the Forest Service's condition-based analysis provides subsistence users with little meaningful information.¹⁸⁵ Mr. Hernandez attended and testified at the subsistence hearing held in Point Baker for the Project and explains:

I do not believe that local residents were given adequate information prior to that hearing about the implement of proposed projects, specifically timber harvest that they needed to give meaningful comments on how those activities would affect their subsistence uses. At the time of the hearing the only information available to us was what lands could potentially be suitable for timber harvest. Without more precise information on where logging units would occur it is impossible for hunter to convey how they will be affected by that logging activity. If you the decision maker is not getting worthwhile information on how subsistence uses are going to be affected by projects which will be implemented under [the Prince of Wales Logging Project], then you are making an uninformed decision.¹⁸⁶

The Forest Service's lack of meaningful analysis of impacts on subsistence users is all the more troubling in light of the recent declines in hunting opportunities and increased competition. On August 16, 2018, the Federal Subsistence Board took an "emergency special action [to] restrict[] the harvest limit of deer by non-Federally qualified users to up to two male deer on Federal

¹⁸¹ Draft ROD at 8.

¹⁸² FEIS at v, vi (also identifying possible significant effects from cumulative impacts).

¹⁸³ *Id.* at 95, 99.

¹⁸⁴ *Id.* at 91.

¹⁸⁵ D. Hernandez letter to Tongass Forest Supervisor Earl Stewart.

¹⁸⁶ *Id*.

Public lands in Unit 2.^{"187} The Forest Service's District Ranger "t[ook] this action based on extensive public testimony and traditional ecological knowledge provided to the Federal Subsistence Board, showing subsistence needs for deer were not being met."¹⁸⁸ This follows the earlier disclosures at the Southeast Alaska Subsistence Resource Advisory Committee's winter 2017 meeting in Craig, when subsistence users described having a harder time harvesting deer during the 2016 season and characterized the 2017 deer season as the worst in recent memory for many hunters on Prince of Wales Island.¹⁸⁹ The Forest Service errs in failing to account for the Project's impacts on subsistence users, recreational hunters, as well as the economic opportunities associated with guide businesses and services.

For all of these reasons, the Forest Service's entire approach to the Prince of Wales Logging Project deprives subsistence users of the opportunity for meaningful information and input, making it impossible to understand the adverse impacts on specific subsistence users and locations. In so doing, the agency reaches arbitrary conclusions under ANILCA, NFMA, and the other statutes governing timber sale projects. The agency also violates NEPA because the FEIS presents misleading and incomplete information regarding the Project's adverse impacts on subsistence users and resources.

WILDLIFE

The Forest Service based the 2016 Amended Forest Plan on the peer-reviewed science adopted in the 1997 and 2008 Forest Plans, which has served as the agency's wildlife conservation strategy for more than two decades.¹⁹⁰ This wildlife conservation strategy has two basic components: (1) a forest-wide old-growth reserve system and (2) management of the important habitat in those lands where logging might occur (the matrix or matrix lands).¹⁹¹

The reserve system protects "old-growth forest by retaining blocks of intact, largely undisturbed habitat."¹⁹² In the matrix, old-growth forest is "maintained by standards and guidelines to protect important areas and provide old-growth forest habitat connectivity."¹⁹³ Thus, the "standards and guidelines regulate how development will occur" in the matrix lands and "incorporate a species-by-species approach that addresses issues that are more localized or not accounted for in the

¹⁹² 2008 FEIS at 3-174.

¹⁹³ *Id.* at 3-175.

¹⁸⁷ Federal Subsistence Board, Harvest Limit for Non-Federally Qualified Users Reduced to Two Male Deer in Unit 2 at PDF 1 (Aug. 16, 2018).

¹⁸⁸ *Id.* at PDF 2.

¹⁸⁹ See generally Alaska Rainforest Defenders Scoping Comments on the Prince of Wales Landscape Level Analysis Project 19-23 (Aug. 2017); Alaska Rainforest Defenders Scoping Comments on the Prince of Wales Landscape Level Analysis Project 12-13, 15-16, 31 (Dec. 2017).

¹⁹⁰ 1997 ROD at 1; 2008 ROD at 1.

¹⁹¹ See 2008 ROD at 15-16; 2008 FEIS at 3-174-75; 2016 ROD at 21-22; 2016 FEIS at 3-200-01.

broader, ecosystem context approach that was incorporated into the old-growth reserve system."¹⁹⁴ The Forest Service adopted the matrix approach "to provide a sufficient amount and distribution of habitat to maintain viable populations of old-growth associated species after 100 years of Plan implementation."¹⁹⁵ Thus the conservation strategy, now reflected in the 2016 Amended Forest Plan, has served as the foundation of the Forest Service's management of the Tongass since the adoption of the 1997 Forest Plan and matrix management, including site and species specific considerations, and it has been essential to the agency meeting NFMA's obligations since that time.

As explained below, the Forest Service is acting in an arbitrary and unlawful manner with regard to the Prince of Wales Logging Project's impacts on wildlife.¹⁹⁶ The Forest Service has not demonstrated that it has "use[d] all the scientific data currently available"¹⁹⁷ to meet its stringent obligation to "ensure" that its forest plans and timber sales authorized pursuant to those plans maintain viable wildlife populations.¹⁹⁸ The agency is ignoring contemporary science, disregarding conflicting expert opinion, relying on arbitrary habitat thresholds, and basing decision on viability analyses from more than 20 years ago.

I. THE 2016 AMENDED FOREST PLAN AND 2016 FEIS ARE UNLAWFUL AND ARBITRARY.

As the undersigned groups previously explained, the 2016 Amended Forest Plan violates NFMA because it fails to comply with the diversity obligations and ensure the continued presence of well-distributed, viable wildlife populations in the Tongass.¹⁹⁹ The Forest Service also acted arbitrarily based on the record before the agency, including contrary expert opinions.²⁰⁰ The 2016 FEIS, moreover, violates NEPA because it fails to take a hard look at the effects of the

¹⁹⁸ See Idaho Sporting Congress v. Rittenhouse, 305 F.3d 957, 961 (9th Cir. 2002) ("In providing for multiple uses, the forest plan must comply with the substantive requirements of [NFMA] designed to ensure . . . the continued viability of wildlife in the forest" (*citing* 16 U.S.C. § 1604(g)(3)(B); 36 C.F.R. § 219.19 (1999)).

¹⁹⁹ See SEACC Forest Plan Objection at 73-128; ARD Forest Plan Objection at 95-194.

²⁰⁰ See, e.g., W. Smith, Comments on the Wildlife Conservation Strategy as represented in the Proposed Land and Resource Management Plan (Feb. 2016); W. Smith, Proposed Forest Plan Amendment Further Compromises Established Conservation Measures to Sustain Viable Northern Goshawk Populations (Feb. 2016); W. Smith, Proposed Forest Plan Amendment Further Compromises Established Conservation Measures to Sustain Viable Populations of Endemic Small Mammals (Feb. 2016); J. Schoen, Comments on the Tongass Land Management Plan Amendment and Draft EIS (Feb. 2016).

¹⁹⁴ 2008 ROD at 16.

¹⁹⁵ 1997 FEIS, Appendix N at N-30.

¹⁹⁶ See DEIS Comment Letter at 9-49.

¹⁹⁷ Inland Empire Pub. Lands Council v. U.S. Forest Serv., 88 F.3d 754, 762 (9th Cir. 1996).

2016 Amended Forest Plan on wolves, fails to respond to opposing viewpoints, and fails to identify missing information necessary to a reasoned choice among alternatives.²⁰¹

The Forest Service is implementing the Prince of Wales Logging Project pursuant to the 2016 Amended Forest Plan and, therefore, plan-level infirmities plague the agency's project-specific implementation. For these reasons, both the 2016 Amended Forest Plan and the Prince of Wales Logging Project are unlawful.

II. THE FOREST SERVICE'S ANALYSIS AND CONCLUSIONS REGARDING WILDLIFE ARE ARBITRARY AND UNLAWFUL.

The Forest Service's approach to the Prince of Wales Logging Project unlawfully departs from the 2016 Amended Forest Plan's provisions governing matrix management. And even if the agency could depart from this decades-long foundation (which it cannot in this case) and rely instead on the habitat threshold concept, the Forest Service acts arbitrarily given the record before the agency and the agency failure to examine spatial and temporal relationships of the various logging and roadbuilding efforts and their resulting impacts on individual species. As a result, the Forest Service acts in an unlawful and arbitrary fashion.

A. <u>The Forest Service's Failure to Comply With the 2016 Amended Forest Plan's</u> <u>Standards and Guidelines Governing Matrix Management is Unlawful.</u>

The 2016 Amended Forest Plan establishes standards and guidelines governing wildlife, but the agency fails to comply with those provisions in this case. In so doing, the agency acts arbitrarily and unlawfully under NFMA (and unlawfully under NEPA given the information is reflected the FEIS).

First, with regard to the loss of wolf habitat, the Forest Service fails to reach any conclusions regarding the Prince of Wales Logging Project's compliance with the 2016 Amended Forest Plan's prescriptions governing wolves.²⁰² With regard to habitat loss, the agency fails to explain how many wolf packs are in the 2.3 million acre project area and whether sufficient habitat will remain after implementation to "maintain sustainable wolf populations."²⁰³ The Forest Service also fails to obtain local knowledge of habitat conditions and spatial habitat location,²⁰⁴ instead of relying solely on model outputs.²⁰⁵ This leads the agency to a generic conclusion regarding the loss of habitat: "Timber harvest with removal of [productive old-growth], and the associated fragmentation and road building which increases access, could affect the local distribution and abundance of . . . wolves."²⁰⁶

 205 Id.

²⁰⁶ FEIS at 86.

²⁰¹ See SEACC Forest Plan Objection at 8-19, 26-30.

²⁰² See 2016 Amended Forest Plan at 4-91 (WILD1.XIV).

²⁰³ *Id.* at 4-91 (WILD1.XIV.A.2).

²⁰⁴ Id.

Here, the Forest Service never explains whether the wolf populations on Prince of Wales Island and the surrounding areas will be unsustainable after the Prince of Wales Logging Project, as the 2016 Amended Forest Plan requires. In the Big Thorne FEIS, for example, the agency concluded:

> Thus, although portions of the larger landscape surrounding the Big Thorne project area would continue to provide sufficient deer habitat to maintain a sustainable wolf population, there remain substantial areas (including the project area WAAs) with lower quality habitat that, on their own, would not be able to support a local population (i.e., population sinks). In these areas, local population persistence would continue to rely on dispersal of wolves from surrounding areas (source populations).²⁰⁷

In this case, the agency simply concludes, "there would be some reduction in the ability of project area [wildlife analysis areas] to maintain a sustainable wolf population, based on deer habitat capability alone."²⁰⁸ This conclusion fails to comply with the forest plan requirement to explain whether the wolf populations will be sustainable. It is also arbitrary given the Forest Service already concluded that significant portions of the Project area were unable to support sustainable wolf populations even before the agency approves the Prince of Wales Logging Project.

The Forest Service also fails to analyze the loss of deer habitat capability in a manner consistent with the 2016 Amended Forest Plan and the agency's past practices. The FEIS admits the agency fails to analyze changes in deer habitat in the manner prescribed by the 2016 Amended Forest plan because the agency is using a condition-based analysis: "Due to lack of site specificity, we used literature habitat thresholds and estimated deer habitat capability to describe effects to deer habitat (winter and summer) at the WAA and GMU 2 scale."²⁰⁹ The lack of site-specific information also means the Forest Service also fails to assess the loss of deer habitat capability at varying geographic scales (*e.g.*, wildlife analysis areas, Prince of Wales Island, and the North Central Prince of Wales biogeographic province) and the resulting impacts on wolves and deer, as it has done for past timber sale projects.²¹⁰

Here, as explained in detail below,²¹¹ the FEIS provides only generic statements about deer habitat capability and logging and relies on arbitrary habitat thresholds. For example:

²¹¹ *Infra* pp. 66-71.

²⁰⁷ Big Thorne FEIS at 3-181.

²⁰⁸ FEIS at 235.

²⁰⁹ FEIS, Appendix D at D-51.

²¹⁰ *Compare* FEIS at 170 *with* Big Thorne FEIS at 3-96 *and* Big Thorne ROD at 28; *see also* PR 736_0419 at 36-37, 116-141 (Big Thorne Wildlife and Subsistence Report) (describing impacts to deer, deer habitat capability, and wolves); *id.* at 81-93 (describing impacts to corridors)).

In the first 20 to 30 years following timber harvest, deer habitat capability tends to increase due to more available forage. However, after this timeframe, populations tend to decline due to forage availability as the canopy in even-aged managed stands closes, resulting in lower habitat quality (less forage).²¹²

Elsewhere the FEIS lumps all of the action alternatives into one section of a table on impacts to subsistence related to effects to deer habitat and states: "The Forest Plan estimates that some WAAs in the project area may retain 50 percent or less of the estimated deer habitat capability; WAAs 1420 and 1422."²¹³ The FEIS later concludes effects to wolves from reductions in deer habitat capability would occur under all alternatives, and would be similar under all action alternatives. In so doing, the FEIS fails analyze the impacts the Prince of Wales Logging Project will have on wolves, deer, and human hunters in the manner prescribed in the 2016 Amended Forest Plan.

Second, with regard to increased access and wolf mortality, the Forest Service also fails to comply with the 2016 Amended Forest Plan's requirement to "*implement* a Wolf Habitat Management Program."²¹⁴ The agency not only refuses to implement the Wolf Habitat Management Plan,²¹⁵ but then fails to examine the impacts of that decision at either the island level (*i.e.*, whether the wolf populations on Prince of Wales will be sustainable) or the Tongass as a whole (*i.e.*, whether wolves will be well-distributed and viable). The FEIS concludes "about 89 percent of the project area WAAs have some level of wolf mortality concern" related to road density.²¹⁶ The Forest Service acknowledges that increased road density negatively affects wolves, ²¹⁷ but fails to explain whether and how it decides it is acceptable to pursue logging and roadbuilding in a specific location in light of those concerns. The agency, for example, does not examine connectivity concerns between wolf pack locations or travel corridors, or state whether it will maintain the 1200 and 600-foot road buffers around wolf dens or disclose the adverse impacts that will result if those buffers are not maintained.²¹⁸

Third, the Forest Service fails to comply with the 2016 Amended Forest Plan's provisions governing other endemic terrestrial mammals. The agency is required to "[a]ssess the impacts of the proposed project relative to the distinctiveness of the taxa, the population status, degree of isolation, island size, and habitat associations."²¹⁹ The FEIS fails to conduct any of this analysis

- ²¹⁶ FEIS at 235.
- ²¹⁷ FEIS at 228.
- ²¹⁸ 2016 Amended Forest Plan at 4-91 (WILD1.XIV.A.3).

²¹⁹ *Id.* at 4-93 (WILD1.XIX).

²¹² FEIS at 3-91.

²¹³ *Id.* at 2-40.

²¹⁴ 2016 Amended Forest Plan at 4-91 (XIV.A.1) (emphasis added).

²¹⁵ Draft ROD at 10-12.

with regard to the Prince of Wales Logging Project and the endemic species found on Prince of Wales Island and the smaller surrounding islands.

The Forest Service also fails to comply the 2016 Amended Forest Plan's requirement that "[w]here distinct taxa are located" the agency must "design projects to provide for their long-term persistence on the island."²²⁰ The agency fails to explain how or whether it is designing the logging and road-building activities authorized by the Project to provide for the "long-term persistence" of the endemic species on these islands.

Finally, the 2016 Amended Forest Plan states: "If existing information is lacking, surveys for endemic mammals maybe be necessary prior to any project that proposes to substantially alter vegetative cover (*e.g.*, road construction, timber harvest, etc.)."²²¹ Those "[s]urveys should emphasize . . . medium sized (ermine and squirrels) endemic mammals with limited dispersal capabilities"²²² Here, the FEIS concludes, "[c]urrently there is an incomplete understanding of the ermine distribution and habitat needs."²²³ Elsewhere the Forest Service explains that ermine and flying squirrels both have "limited dispersal capabilities."²²⁴ Yet, the Forest Service fails to comply with the 2016 Amended Forest Plan's provisions to conduct population surveys for endemic mammals to assess project-level impacts.

For these reasons, the Forest Service is proceeding unlawfully under NFMA and the 2016 Amended Forest Plan. And because it presents this misleading and incomplete information in the FEIS, the agency violates NEPA.

B. <u>The Forest Service's Reliance on Arbitrary Habitat Thresholds is Unsupported</u>, <u>Contrary to the Record, and Unlawful</u>.

For the first time ever, the Forest Service bases a project-specific analysis of wildlife impacts on generic habitat thresholds (*e.g.*, percent of habitat remaining after implementation) that relate to species "persistence."²²⁵ In the more than 20 years since the Forest Service adopted the 1997 Forest Plan, the agency has never handled a wildlife impact analysis in this manner and ignores expert criticism faulting the agency's reliance on habitat thresholds in this instance. In so doing, the agency ignores an important aspect of the problem, contradicts the evidence before the agency, and fails to provide a rational justification for the agency's conclusions regarding the Prince of Wales Logging Project.

²²⁰ Id. at 4-93 (WILD1.XIV.A.3).

²²¹ *Id.* at 4-91 (WILD1.XIV.A.2).

²²² *Id.* at 4-91 (WILD1.XIV.A.1.c).

²²³ FEIS at 180.

²²⁴ *Id.*; *see also id.* at 182, 197, 200.

²²⁵ Draft ROD at 10.

The DEIS based the agency's entire impacts on analysis on the conclusion that a bird or wildlife population will "persist" after the Prince of Wales Project based on whether 20-50 percent of any given type of habitat will remain.²²⁶ The DEIS explained that:

The likelihood of a population persisting over time has been suggested to be related to some threshold level of habitat loss on the landscape (Fahrig 1997, 1999, 2003; Flather *et al.* 2002; Andren 1994). After reaching this threshold, the rate of population decline, and thus the likelihood of extinction, may increase (Haufler 2007). Reported threshold levels (percentage of habitat maintained or remaining on the landscape) range from 20 percent (Fahrig 1997) to 50 percent (Soule and Sanjayan 1998), depending in part on the dispersal capability of the species under consideration.²²⁷

During the comment period, experts and groups alike pointed out the flaws with the Forest Service's position.²²⁸ In Soule and Sanjayan (1998), for example, the authors addressed whether 50 percent of habitat worldwide would conserve *global* biodiversity and Fahrig (1997) acknowledged that the simulation model was just a simple algorithm based on assumptions, rather than a specific understanding of species habitat needs.

Despite these concerns, the FEIS still relies exclusively on habitat thresholds for its impacts analysis. The FEIS deletes the paragraph identified above and all of the assertions citing Soule and Sanjayan (1998) and Fahrig (1997), but continues to rely on the thresholds of 20 and 50 percent.²²⁹ Elsewhere the agency admits it lacks habitat thresholds for several Tongass and in other cases appears to select threshold research randomly from other parts of the world and from different applications, including Brazil,²³⁰ urban planning,²³¹ and the Atlantic Forest in South America.²³² Indeed most of the time, the FEIS admits the agency has no habitat thresholds, but the agency proceeds ahead undaunted. For example:

²²⁶ See, e.g., DEIS at 165 (describing impacts on deer and marten persistence given remaining thresholds of average snow habitat), 197 (describing "minor" to "moderate" effects on wolves).

²²⁷ DEIS at 157-58.

²²⁸ See, e.g., DEIS Comment Letter at 18-20; W. P. Smith, Prince of Wales Landscape Level Analysis Project – Comments (June 11, 2018) (Smith Prince of Wales Comments) at 2 (Jun. 11, 2018).

²²⁹ See, e.g., DEIS at viii.

²³⁰ See FEIS at 179 ("The Estavillo *et al.* (2013) study in Brazil proposed a threshold amount in small mammals was 30 percent of remaining forest.").

²³¹ See id., at 210 ("Blewett and Marzluff (2005) suggested that urban planners in the Pacific Northwest design developments have 27 percent to 60 percent.").

²³² See id. ("Martensen *et al.* 2012 indicated a threshold of between 30 percent and 50 percent for understory birds in Atlantic Forest.").

- "No literary habitat thresholds have been identified for deer; 50 percent was used in this analysis."²³³
- "While no habitat thresholds have been identified for shrews . . . the 30 percent defined for chipmunks was used."²³⁴
- "No thresholds were determined for ermine."²³⁵

In still other examples, the agency's planning record provides no support for the adopted thresholds. With regard to bears, for example, the FEIS states "[r]esearch by Mikusinski and Angelstram [*sic*] (2000) indicated a habitat threshold for bears (brown) of about 50 percent habitat remaining."²³⁶ Elsewhere, the FEIS states: "WAAs with more than 20 percent HPOG habitat should be capable of providing habitat for the Prince of Wales flying squirrel (Mikusinski and Angelstram [*sic*] 2000) and spruce grouse (Angelstam 2001)."²³⁷ The FEIS also explains: "The levels of tolerance to habitat change determined by research of 30 (Heinen 1998 and Estavillo et al. 2013) and 50 percent (Mikusinski and Angelstram [*sic*] 2000) of the original habitat remaining are dependent in part on the dispersal capabilities of the species associated with that habitat type."²³⁸ With the exception of Estavillo 2013,²³⁹ none of this information is included in the planning record, making it impossible for the public to understand the agency's analysis. With no record support, the bare assertions are meaningless.

The fact is that prior to the Prince of Wales Logging Project, the Forest Service has consistently recognized that it must examine the quantity, quality, distribution, and connectivity of habitat when evaluating adverse impacts on species and reaching conclusions regarding wildlife viability. ²⁴⁰ In 1997, the Forest Service did not rely on generic habitat thresholds to support its

²³⁶ Id.

²³⁷ *Id.* at 201.

²³⁸ *Id.* at 180.

²⁴⁰ In the past, the agency has referenced thresholds only briefly with regard to generalized concepts of biodiversity, habitat connectivity, and fragmentation and even then, the agency admitted: "No specific threshold has been determined for the Tongass." 2008 Forest Plan FEIS at 3-289.

²³³ Id. at 183; see also id. at 177 ("No habitat thresholds have been determined for deer.").

²³⁴ *Id.* at 179.

²³⁵ Id.

²³⁹ The agency also acts arbitrarily in relying on Estavillo 2013, given the authors explained explicitly the research addressed overall biodiversity not species-level impacts. *See, e.g.,* PR 833_2147 at 8 ("It is important to note, however, that the spatial scale at when such thresholds are observed should depend on the group of organisms under consideration."); *id.* ("our landscape-scale sampling design . . . allowed us to demonstrate the potential for biodiversity thresholds").

conclusions regarding wildlife impacts, including its viability conclusions.²⁴¹ And in 2008 and 2016, consistent with the original effort, the Forest Service also did not rely on habitat thresholds.²⁴² As the agency explained in the 2008 Forest Plan FEIS:

Patches of old-growth forest sometimes serve as the only habitat in a landscape for . . . small-bodied animals, all of which contribute to the biodiversity and productivity of the forest ecosystem. These patches may be critical for species that are locally endemic, occur only in very specific conditions of forest structure or soil, or have limited dispersal capabilities. These issues are typically assessed in detail during project-level analysis.²⁴³

Based on this understanding, the 2016 Amended Forest Plan requires the agency to "[d]esign projects to maintain landscape connectivity"²⁴⁴ and "[d]uring the environmental analysis for [logging] projects" to evaluate whether there is "sufficient productive old-growth forest connectivity."²⁴⁵ As the Forest Service explained in the 2016 Amended Forest Plan FEIS, this is especially true on Prince of Wales Island:

As development continues through timber harvest and associated activities such as road building, and community expansion, particularly in areas where extensive development has already occurred (i.e., Prince of Wales Island), maintaining connectivity and roadless refugia will become increasingly important, particularly for wide-ranging species whose distribution depends on some level of connectivity across the landscape.²⁴⁶

And for all of these reasons, the Forest Service did not rely on habitat thresholds when it assessed impacts to birds and wildlife relating to the Big Thorne and Logjam timber sale projects.²⁴⁷

As explained in detail below, the Forest Service also ignores expert criticism regarding the agency's use of the arbitrary habitat thresholds to assess project impacts and reach conclusions

- ²⁴³ 2008 Forest Plan FEIS at 3-168.
- ²⁴⁴ 2016 Amended Forest Plan at 4-87 (WILD.VI.A.).
- ²⁴⁵ 2016 Amended Forest Plan at 4-87 (WILD.VI.A.2).
- ²⁴⁶ 2016 Amended Forest Plan FEIS at 3-217.

²⁴¹ See 1997 Forest Plan FEIS, Chapter 3; *id*, Appendix N; 1997 Forest Plan ROD; 1997 Forest Plan.

²⁴² See 2008 Forest Plan FEIS, Chapter 3; 2008 Forest Plan FEIS, Appendix D; 2008 Forest Plan ROD; 2008 Forest Plan; 2016 Amended Forest Plan FEIS, Chapter 3; 2016 Amended Forest Plan ROD; 2016 Amended Forest Plan.

²⁴⁷ See Big Thorne FEIS, Chapter 3; Logjam FEIS, Chapter 3.

regarding compliance with NFMA and the 2016 Amended Forest Plan. Both the FEIS (including the appendices) the Draft ROD are devoid of any mention of the extensive expert concerns regarding the agency's reliance on habitat thresholds both generally as an approach and with regard to specific species. The experts noted the Forest Service is departing from long-standing from historical practice, the 2016 Amended Forest Plan, and the scientific predicate underlying Tongass habitat management without explanation. For these reasons alone, the Forest Service's decision is arbitrary under NFMA and the other statutes governing timber sale projects and because the information is not in the FEIS, the agency violates NEPA.

Finally, even if it were appropriate to rely on the habitat threshold concept, which it is not here, the Forest Service's newfound reliance on habitat thresholds is arbitrary because the conditionbased approach means the agency fails to examine spatial and temporal relationships of the various logging efforts and their resulting impacts on individual species.²⁴⁸ This leads the agency to admit, for example, that it bases its wolf impact analysis on "literature habitat thresholds . . . describe the effects to deer habitat" "[d]ue to [the] lack of site specificity."²⁴⁹ As an initial matter, the agency errs because the FEIS admits the agency does not have a habitat threshold for deer habitat.²⁵⁰ Moreover, the lack of temporal and spatial specificity is a problem of the Forest Service's own making given the agency's decision to use a "condition-based" approach to the Prince of Wales Logging Project for the very first time, instead of using sitespecific analysis. Elsewhere the FEIS states that the adverse effects will be even greater on islands, where two or more wildlife analysis areas fall below the arbitrary 50 percent threshold are adjacent to one another, or for animals with more limited dispersal capabilities.²⁵¹ It acknowledges, however, "[a]ll WAAs with current HPOG habitat concerns are adjacent to at least one other WAA with HPOG concerns or are on islands thereby potentially having a greater effect to species with more limited dispersal capabilities."²⁵² Thus the Forest Service concedes significant adverse impacts to birds and wildlife depend upon the spatial and temporal decisions the agency makes about logging and road building (e.g., where, when, and how much), but then fails to assess impacts based on that understanding.

²⁴⁸ See PR 833_1962 at 475 (P.K. Angelstam *et al.*, *Habitat thresholds for focal species at multiple scales and forest biodiversity conservation—dead wood as an example*, 40 ANN. ZOOL. FENNICI 473-82, 475 (2003) (Habitat thresholds for dead wood) ("To detect a response of habitat loss in living organisms, it is necessary to identify the appropriate spatial and temporal scale at which a particular species responds.").

²⁴⁹ FEIS, Appendix D at 53; *see also id.* at 54-55 ("Due to lack of site specificity, we used literature habitat thresholds and estimated deer habitat capability to describe effects to deer habitat").

²⁵⁰ The FEIS provides no habitat thresholds for wolves and admits there are no habitat thresholds for deer. FEIS at 183; *see also id.* at 177 ("No habitat thresholds have been determined for deer.").

²⁵¹ *Id.* at 178, 180.

²⁵² *Id.* at 194.

In sum, the agency bases its impacts analysis and its conclusions regarding the Prince of Wales Logging Project on little more than generic recitations of remaining habitat. The agency, instead of assessing site-specific information or in most cases even basing its conclusions on species-specific information,²⁵³ offers little more than conclusory assumptions. Based on the record before the Forest Service, the agency acts arbitrarily in selecting an approach that is inconsistent with the agency's wildlife conservation strategy, scientific understanding (both historical and contemporary) with regard to individual species and the Tongass as a whole. The agency also ignores conflicting expert opinion and fails to provide a rational connection between the facts and the decision to approve the Project. For all of these reasons, the Forest Service's decision to approve the Project is arbitrary.

III. THE FOREST SERVICE'S ASSESSMENT OF THE PROJECT'S IMPACTS ON ENDEMIC SPECIES GENERALLY, INCLUDING VIABILITY, IS ARBITRARY AND UNLAWFUL.

According to the Forest Service, "[e]ndemic species are species that are isolated to islands or specific geography that potentially have an increased risk of adverse effects associated with management or natural disturbance" and, as result, "there is a higher probability of extinction on islands."²⁵⁴ "A disproportionate percentage of documented [species] loss [due to extinction] during the past 400 years has occurred on islands, with some estimates suggesting that worldwide, 63% of mammalian, 95% of reptilian, and 80% of avian extinctions have been insular endemics."²⁵⁵ Insular endemics "are prone to extinction because they are vulnerable to demographic stochasticity, random climatic events, and anthropogenic disturbance."²⁵⁶ Experts also note that endemic "[s]pecies assemblages vary spatially (i.e., from island to island) and temporally."²⁵⁷ The Forest Service and experts alike recognize the Prince of Wales Island complex of islands (*i.e.*, the Project area) "as an important center of endemism."²⁵⁸

²⁵⁶ Id.

²⁵³ *Id.*; *id.* at 170.

²⁵⁴ 2008 Forest Plan FEIS at 3-170.

²⁵⁵ PR 603_0375 at 207 (J.A. Cook, S. O. MacDonald, Should Endemism be a Focus of Conservation Efforts Along the North Pacific Coast of North America, Biological Conservation 97 at 207 (2001)).

²⁵⁷ PR 603_140 at 8 (J. Cook, N. Dawson, S. MacDonald, Conservation of Highly Fragmented Systems: The North Temperate Alexander Archipelago, Biological Conservation 133 at 8 (2006)).

²⁵⁸ *Id.* at 9; *see also id.* at 8 (Table 2); *see also* PR 0990-Present10-Mammals-Endemics.pdf at 22 (Conservation Strategy Review: An Assessment of New Information Since 1997, Other Mammals – Including Endemics) at 22) (Forest Service characterizing Prince of Wales complex as the hottest of biodiversity hotspots); Big Thorne FEIS at 3-126 to 3-127.

In 1997, the Forest Service convened experts to assess wildlife viability and examined "endemic taxa associated with productive old-growth (endemic group)."²⁵⁹ The 1997 FEIS explained that:

The panel predicted that all of the proposed alternatives had some likelihood of causing extirpation within the endemic group. This prediction was attributed to both historical and proposed timber related activities. These likelihoods increased with higher levels of timber harvest proposed.

. . .

The panel also predicted that most of the alternatives have a relatively high likelihood of creating conditions where wildlife populations of at least one of the species in the group may be no longer well distributed and viability could be compromised.²⁶⁰

²⁵⁹ 1997 Forest Plan FEIS at 3-410 (Prince of Wales Island flying squirrel, beaver, Keen's mouse, red-backed vole, meadow vole, ermine); *see also* PR 603_0216 (C. Iverson, U.S. Forest Service, Memorandum to TLMP Revision Planning File, Re. American Marten Viability Assessment Panel Summary (Jan. 31, 1996)); PR 603_0421 (G. DeGayener, U.S. Forest Service, Memorandum to TLMP Revision Planning File, Re. Summary of the 1997 American Marten Risk Assessment Panel (May 6, 1997)); PR 603_0423 (C. Iverson, U.S. Forest Service, Memorandum to TLMP Revision Planning File, Re. Summary of the 1997 Other Terrestrial Mammals Assessment Panel (May 19, 1997)); PR 603_1322 (U.S. Forest Service, Pacific Northwest Research Station, Assessments of Wildlife Viability, Old-growth Timber Volume Estimates, Forested Wetlands, and Slope Stability, Gen. Tech. Rep. PNW-GTR-392 (1997)); PR 10_00102 (L. H. Suring *et al.*, A Proposed Strategy for Maintaining Well-Distributed, Viable Populations of Wildlife Associated with Old- Growth Forests in Southeast Alaska, Review Draft (May 1993)); PR 11_jlm067 (A. R. Kiester and C. Eckhardt, Review of Wildlife Management and Conservation Biology on the Tongass National Forest: A Synthesis with Recommendations (Mar. 1994)).

²⁶⁰ 1997 Forest Plan FEIS at 3-242 and 3-410; *see also* 2008 Forest Plan at 3-170 (describing the 1997 panel conclusions).

Prior to its adoption of the 2008 Amended Forest Plan, the Forest Service conducted a conservation strategy review to assess new scientific information arising since 1997, including a review of endemics on the Tongass.²⁶¹

²⁶¹ See. e.g., PR 603 0140 (J. Cook et al., Conservation of Highly Fragmented Systems: The North Temperate Alexander Archipelago, 133 BIOLOGICAL CONSERVATION 1 (2006)); PR 603 0147 (T.A. Hanley et al., Maintaining wildlife habitat in southeastern Alaska: implications of new knowledge for forest management and research, 72 LANDSCAPE AND URBAN PLANNING 113 (2005)); PR 603 0374 (J.A. Cook et al., A phylogeographic perspective on endemism in the Alexander Archipelago of southeast Alaska, 97 BIOLOGICAL CONSERVATION 215 (2001)); 603 0375 (J. Cook, et al., Should Endemism be a Focus of Conservation Efforts along the North Pacific Coast of North America? (2001)); PR 603 0381 (W.P. Smith & J.V. Nichols, Demography of the Prince of Wales flying squirrel, an endemic of souwtheastern Alaska temperate rain forest, 84 JOURNAL OF MAMMALOGY 1044 (2003)); PR 603 0382 (W.P. Smith & J.V. Nichols, Demography of two endemic forest-floor mammals of southeastern Alaskan temperate rain forest, 85 JOURNAL OF MAMMALOGY 540 (2004)); PR 603 0383 (W.P. Smith et al., Correlates of microhabitat use and density of Clethrionomys gapperi and Peromyscus keeni in temperate rain forests of Southeast Alaska, 51 ACTA ZOOLOGICA SINICA 973 (2005)); PR 603 0384 (W.P. Smith et al., Ecological correlates of flying squirrel microhabitat use and density of in temperate rainforests of southeastern Alaska, 85 JOURNAL OF MAMMALOGY 663 (2004)); PR 603 0386 (W.P. Smith, Evolutionary diversity and ecology of endemic small mammals of southeastern Alaska with implications for land management planning, 72 LANDSCAPE AND URBAN PLANNING 135 (2005)); PR 603 0417 (M. P. Small et al., American marten (Martes americana) in the Pacific Northwest: population differentiation across a landscape fragmented in time and space, 12 MOLECULAR ECOLOGY 89 (2003)); PR 603 0419 (J. Szacki, Spatially structured populations: how much do they match the classic metapopulation concept?, 14 LANDSCAPE ECOLOGY 369 (1999)); PR 603 0797 (N. Dawson et al., Endemic mammals of the Alexander Archipelago, in Southeast Alaska Conservation Assessment); PR 603 0808 (J.R. Demboski et al., Phylogeography of the dusky shrew, Sorex monticolus (Insectivora, Soricidae): insight into deep and shallow history in northwestern North America, 10 Molecular Ecology 1227-1240 (2001)); PR 603 0809 (J.R. Demboski et al., Phylogenetic diversification within the Sorex Cinereus group (Soricidae) 84 J. Mammalogy 144-158 (2003)); PR 603 0816 (M.A. Fleming et al., Phylogeography of endemic ermine (mustela erminea) in Southeast Alaska, 11 Molecular Ecology 795-807 (2002)); PR 603 0819 (R.W. Flynn et al., Ecology of Martens in Southeast Alaska, Alaska Department of Fish and Game, Federal Aid in Wildlife Restoration Report July 2000-June 2001 (Dec. 2001)); PR 603 0820 (R. W. Flynn et al., Ecology of Martens in Southeast Alaska, Alaska Department of Fish and Game, Federal Aid in Wildlife Restoration Report July 1998-June 1999 (Dec. 1999)); PR 603 0829 (T. A. Hanley, Small mammals of even-aged, red alder-conifer forests in southeastern Alaska, in The Canadian Field-Naturalist (1997)) . . . (continues next page).

During this review, the Forest Service asked and answered following questions:

Does the current taxonomy adequately reflect biological diversity and thus provide a firm foundation for the [Forest Plan's] Standards and Guidelines? *No*

Are distributions [of endemics] adequately documented? No

Are there species, subspecies or distinct populations of conservation concern? *Yes*

What special problems does an island archipelago create for management? *Several*

Are we managing at the right scales? Not likely ²⁶²

Prior to its adoption of the 2016 Amended Forest Plan, the Forest Service concluded

There are roughly 24 mammal species or subspecies considered endemic to Southeast Alaska (Smith et al. 2005). Mammal surveys on the Tongass have resulted in the documentation of new

PR 603 0832 (C. D. Hargis et al., The Influence of Forest Fragmentation and Landscape Pattern on American Martens, 36 JOURNAL OF APPLIED ECOLOGY 157 (Feb. 1999)); PR 603 0843 (M.K. Lucid & J.A. Cook, Phylogeography of Keen's Mouse (Peromyscus keeni) in a Naturally Fragmented Landscape, 85 JOURNAL OF MAMMALOGY 1149 (2004)); PR 603 0977 (S. Fadden, Survey of Goshawk and Marten Standard and Guidelines for Forest Plan Implementation Consistency (June 11, 2007)); PR 603 0985 (R. Flynn et al., Presentation, Conservation Strategy Review - An Assessment of New Information Since 1997, American Marten (undated)); PR 603 0987 (K. Titus et al., Presentation, Conservation Strategy Review: An Assessment of New Information Since 1997 Northern Goshawks on the Tongass National Forest – Summary of Study Findings Related to Forest Management (undated)); 603 0988 (U.S. Forest Service et al., Presentation, Conservation Strategy Review: An Assessment of New Information Since 1997 Goshawk and Marten Standards and Guidelines: Implementation Challenges (undated)); PR 603 0990 (J. Cook et al., Presentation, Conservation Strategy Review: An Assessment of New Information Since 1997, Other Mammals - Including Endemics (undated)); PR 603 0998 (R. Flynn et al., Marten abundance, prey abundance, and seasonal diets in selected areas of Southeast Alaska, Wildlife Research Progress Report Sept. 2001-Dec. 2002 (Apr. 23, 2003)); PR 603 1222 (T. Benna, U.S. Forest Service, Email to L. Kramer, U.S. Forest Service, Re: FP s&g reminder/concerns (July 26, 2007)); PR 603 1302 (R. Flynn, Alaska Department of Fish & Game, Letters to C. Iverson, U.S. Forest Service, Re. Recommendations for revisions to marten habitat capability model (1995)); PR 603 1900 (U.S. Forest Service, Meeting Minutes: Tongass Wildlife Standard and Guide (S&G) Meeting (Aug. 15-16, 2006)).

²⁶² PR 0990-Present10-Mammals-Endemics.pdf at 12 (J. Cook *et al.*, Presentation, Conservation Strategy Review: An Assessment of New Information Since 1997, Other Mammals – Including Endemics (undated) at 12) (emphasis added).

distributions, new species. However, there continue to be gaps in knowledge about the natural history and ecology of wildlife subspecies indigenous to Southeast Alaska (Hanley et al. 2005). Within Southeast Alaska, roughly 20 percent of known mammal species and subspecies have been described as endemic to the region. *The long-term viability of these endemic populations is unknown, but of increasing concern* since island endemics are extremely susceptible to extinction because of restricted ranges, specific habitat requirements, and sensitivity to human activities such as species introductions (http://msb.unm.edu/isles/).²⁶³

Notably, the FEIS does not disavow (or even acknowledge) any of these concerns.

The fact is that for more than 20 years, the Forest Service has concluded that it has special concerns regarding the impacts of logging on the endemic species of the Tongass. But, the agency has done next to nothing since that time to address those concerns or modify its management of old-growth logging, especially on Prince of Wales Island, to account for those concerns. And despite its own conclusions regarding the vulnerability of endemics, the Forest Service steadfastly refuses to conduct species-specific viability analyses, relies on outdated and incomplete science, and ignores conflicting expert opinion. And now, in the Tongass's most important hotspot for endemic biodiversity, the Forest Service plans to log for another 15 years based on a "condition-based" analysis, using arbitrary habitat thresholds, ignoring its own experts and contemporary science, and acting contrary to the 2016 Amended Forest Plan. As explained below, the Forest Service's analysis and conclusions regarding the 2016 Amended Forest Plan and the Prince of Wales Logging Project's impacts on endemic species are arbitrary and unlawful.²⁶⁴

A. <u>The Forest Service Acts Unlawfully by Ignoring Missing Information Regarding</u> <u>Endemic Species.</u>

The Forest Service violates NEPA's obligations governing the agency's approach to missing information regarding endemic species and the resulting impacts of the Project on those species. The agency also reaches arbitrary conclusions under NFMA and the other substantive statutes governing timber sale projects.

When an agency confronts incomplete or unavailable information as part of the environmental review process, NEPA regulations dictate how the agency must address that information.²⁶⁵ "[T]he agency shall include the information in the environmental impact statement," if the missing information is: (1) "relevant to reasonably foreseeable significant adverse impacts;" (2) "essential to a reasoned choice among alternatives;" and (3) "the overall

²⁶³ Wrangell Island Project DEIS at 83 (emphasis added).

²⁶⁴ See DEIS Comment Letter 27-38, 42-49.

²⁶⁵ See Mont. Wilderness Ass'n v. McAllister, 666 F.3d 549, 559-61 (9th Cir. 2011).

costs of obtaining it are not exorbitant."²⁶⁶ According to CEQ, "[t]he evaluation of impacts under § 1502.22 is an integral part of an EIS and should be treated in the same manner as those impacts normally analyzed in an EIS."²⁶⁷ Consistent with the regulation, courts require agencies to make these determinations and explain the rationale regarding any missing information.²⁶⁸

Here, the Forest Service admits it is missing information about virtually every aspect of endemics species, including, but not limited to:

- species-specific viability analyses (*i.e.*, what constitutes a viable population of any given species, what does it mean for a particular species to be well-distributed);
- population estimates;
- population distributions;
- project-level populations surveys;
- species-specific habitat requirements (*e.g.*, quantity, quality, and distribution of habitat);
- species-specific habitat thresholds;
- current taxonomic understanding;
- adequate documentation of species distribution;
- understanding of the species, subspecies or of distinct populations of conservation concern; and,
- determination of the appropriate spatial scale for impact and viability analyses.

The agency, however, never conducts the missing information analysis required by 40 C.F.R. § 1502.22, including determining whether the missing information regarding the impacts on endemics is relevant to adverse impacts, essential to the Prince of Wales Logging Project decision, or that the costs of obtaining that information are not exorbitant. "[T]he plain language of § 1502.22 . . . requires the [Forest Service] to make the[se] findings."²⁶⁹ In failing to do so here, the agency violates NEPA.

The Forest Service also acts arbitrarily under NFMA and the other statutes governing timber sale projects. The agency acknowledges this is important information and, nevertheless, plans to approve the Prince of Wales Logging Project without obtaining the information. The decision to do so is arbitrary based on the record before the agency.

²⁶⁶ 40 C.F.R § 1502.22(a).

²⁶⁷ 51 Fed. Reg. 15,618, 15,621 (Apr. 25, 1986).

²⁶⁸ See Native Vill. of Point Hope v. Jewell, 740 F.3d 489, 496-97 (9th Cir. 2014) (explaining the agency must conduct the analysis required by § 1502.22); *Montana Wilderness*, 666 F.3d at 554; *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Comm'n*, 449 F.3d 1016, 1033 (9th Cir. 2006); *Lands Council v. Powell*, 395 F.3d 1019, 1031-32 (9th Cir. 2004).

²⁶⁹ Native Vill. of Point Hope v. Salazar, 730 F. Supp. 2d 1009, 1018 (D. Alaska 2010).

B. <u>The Forest Service Acts Arbitrarily and Unlawfully By Ignoring Expert Concerns</u> <u>Regarding the Endemics Impact Analysis and Conclusions.</u>

The Forest Service ignores all of the expert commentary calling for the agency to conduct project-specific analysis to understand the impacts of the Prince of Wales Logging project on endemic species, including, but not limited to, the ability to maintain sufficient old-growth habitat to provide for well-distributed viable populations of those species throughout the forest.²⁷⁰ As a result, and as explained in greater detail below, the Forest Service acts in an arbitrary and unlawful manner under NEPA, NFMA, and the other statutes governing timber sale projects.

The Forest Service ignores the concerns Dr. Winston Smith raised regarding the agency's approach to endemic impacts analysis. Dr. Smith gave specific, detailed reasons for faulting the agency's endemic analysis, including the "condition-based" review, use of habitat thresholds, lack of species-specific analysis, and endemic viability.²⁷¹ Yet, neither the FEIS nor the Draft ROD even discloses Dr. Smith's conflicting expert opinions regarding the agency's analysis of endemic species, let alone explain how the agency considered his expert opinions and ultimately reached contrary conclusions.²⁷²

The agency also errs in ignoring the expert opinions of Drs. Joseph Cook and Natalie Dawson and Jocelyn Colella, Ph.D. Candidate, regarding the Forest Service's flawed approach to assessing the Project's impacts on endemics.²⁷³ Like Dr. Smith, they faulted the "Forest Service's reliance on habitat thresholds for endemic mammals," explaining it "has no basis in the contemporary science of conservation biology of island endemics."²⁷⁴ They faulted the Forest Service's condition-based approach and the lack of project-specific analysis.²⁷⁵ Citing the agency's lack of site-specific information, they called on the agency to conduct the projectspecific analysis outlined in the 2016 Amended Forest Plan, including population surveys. They ultimately concluded: "In sum, the Prince of Wales project, if approved, represents an unacceptable risk to the long-term persistence of endemic mammals on Prince of Wales Island."²⁷⁶ Again, the Forest Service fails to disclose and address these expert concerns.²⁷⁷

²⁷⁴ Cook Comments at PDF 7.

²⁷⁵ See id.

²⁷⁶ Id.

²⁷⁰ See DEIS Comment Letter at 28-31.

²⁷¹ See generally Smith Prince of Wales Comments.

²⁷² See FEIS at 179-83; *id.*, Appendix D at D-57 to D-62.

²⁷³ See generally J. Cook et al. Statement on DEIS Prince of Wales Landscape Level Analysis, and attachments at PDF 7 (Jun. 11, 2018) (Cook Comments).

²⁷⁷ See FEIS at 179-183; *id.*, Appendix D at D-57 to D-62.

The Forest Service also fails to confront the experts' concerns regarding the agency's outdated viability analyses for endemic species. As an initial matter, the FEIS concedes the agency has only conducted a single analysis of endemic viability and it dates to back to the 1997 Forest Plan.²⁷⁸ And as experts pointed out, that analysis "lumped all endemics species (rodents, carnivores, bats, etc.) into one category, rendering the analysis all but useless in understanding the habitat quality and quantity that must be retained to ensure the viability of endemic species."²⁷⁹ The Forest Service appears to concede this point, admitting in the FEIS that "[t]he primary cause of the response of species to habitat change is the loss of habitat" and "[s]pecies-level details such as movement, behavior, and life history traits show that *responses vary by species*."²⁸⁰ Nonetheless, the Forest Service refuses to conduct updated viability analyses to account for species-specific considerations based on the premise that it was good enough in 1997, so it must still be good enough today.

In light of these failings, the Forest Service reached arbitrary conclusions regarding the Prince of Wales Logging Project's compliance with NFMA (and the other statutes governing timber sale projects) and the 2016 Amended Forest Plan, including the provisions governing endemics.²⁸¹ Here the agency admits it lacks any species-specific information or understanding of the habitat needs of endemics (e.g., quantity, quality, distribution, etc.), rendering the agency's conduct unlawful and arbitrary. The record before the agency reveals unexamined (and even undisclosed) expert concerns regarding the impacts of the Project on endemics, including the reliance on condition-based analysis, arbitrary habitat thresholds, the lack of any site-specific information, and an outdated and generic viability analysis. In light of these concerns, experts called for population surveys given the existing and proposed fragmentation on Prince of Wales Island, but the agency ignores those concerns as well. Additionally, the agency violates NFMA's obligation to demonstrate it is maintaining the sufficient quantity and quality of habitat to ensure well-distributed, viable populations of endemics remain on the Tongass. The Forest Service also violates NEPA because it fails to disclose these conflicting expert opinions, explain why the agency chose to disregard the concerns, and ultimately to describe the impacts of the Prince of Wales Logging Project on endemic species.

IV. THE FOREST SERVICE'S ANALYSIS OF THE PRINCE OF WALES FLYING SQUIRREL IS ARBITRARY AND UNLAWFUL.

The Forest Service violates NEPA and reaches arbitrary and unlawful conclusions regarding the Prince of Wales Logging Project's compliance with NFMA (and the other statutes governing timber sales) with regard to the Prince of Wales Flying Squirrel.²⁸² The agency ignores important aspects of the problem when it admits it lacks critical information, fails to conduct a site-specific impact analysis, ignores Dr. Smith's expert concerns regarding the adverse impacts

²⁷⁸ See id., Appendix D at D-58.

²⁷⁹ Cook Comments at PDF 3-4.

²⁸⁰ FEIS, Appendix D at D-58 (emphasis added).

²⁸¹ 2016 Amended Forest Plan at 4-93 (WILD.1.XIX.).

²⁸² See DEIS Comment Letter at 31-33.

on the flying squirrel, including viability, and fails to justify its overall conclusions based on the record before the agency.

As an initial matter, the Prince of Wales Flying Squirrel is an endemic subspecies. Thus, the previous discussion regarding the Forest Service's concerns for, treatment of endemics generally also applies.²⁸³

Based on the FEIS and the planning record, the Forest Service concedes (or does not dispute due to omission) critical expert conclusions regarding the agency's treatment of the Prince of Wales Flying Squirrel:

- The entire geographic range of the Prince of Wales flying squirrel is limited to Prince of Wales Island and nearby islands of Prince of Wales Island's western coast (*i.e.*, the Prince of Wales Logging Project area).
- Productive old-growth forest is the primary habitat for the Prince of Wales Flying Squirrel.
- The Prince of Wales Flying Squirrel has the lowest genetic diversity of all northern flying squirrels in North America, making it especially vulnerable to inbreeding and additional demographic consequences due to habitat fragmentation and limited dispersal.
- The agency has never determined what constitutes a viable population of the Prince of Wales Flying Squirrel subspecies (or northern flying squirrels as a species) on the Tongass.
- The agency has not determined the quantity or quality of habitat that must remain on Prince of Wales Island to ensure the Prince of Wales Flying Squirrel remains viable and well-distributed.
- The Forest Service has not determined the contributions the Prince of Wales Flying Squirrel makes toward ensuring viable and well-distributed populations of northern flying squirrels across the Tongass.²⁸⁴

In light of these undisputed facts, the Forest Service's failure to address or even disclose the concerns raised by Dr. Smith proves damning. The agency fails to disclose or confront Dr. Smith's conclusions that:

[T]he . . . Prince of Wales Landscape Level Project . . . will contribute to an increasing downward trajectory of population decline, raising significant viability concerns regarding the future of

²⁸³ *Supra* pp. 47-54.

²⁸⁴ *Compare* Smith Prince of Wales Comments at 5-7 *with* FEIS at 173, 193-94, Appendix D at D-61 to D-62.

this island endemic on the Tongass and the sustainability of the squirrel on Prince of Wales Island.²⁸⁵

The agency fails to disclose that Dr. Smith's concerns led him to advise the Forest Service to conduct a project-specific impact analysis (rather than the condition-based analysis), including the population surveys contemplated by the 2016 Amended Forest Plan before it approves the Project.²⁸⁶ Again, the FEIS and the Draft ROD ignores all of these concerns.

The Forest Service has relied on Dr. Smith's expertise regarding endemics for decades, and continues to rely on his opinions in the FEIS when those historical conclusions support the agency, but then ignores Dr. Smith completely when he reaches conclusions that do not support the agency decision to pursue the Project. The Forest Service's inadequate analysis and disclosure render the Draft ROD arbitrary and FEIS unlawful. The agency also reaches arbitrary and unlawful conclusions regarding the Forest Service's ability to ensure the viability of flying squirrels, and the Prince of Wales subspecies, on the Tongass. Based on the undisputed record, the agency also acts arbitrarily in deciding to proceed with the Prince of Wales Project despite lacking essential site-specific information regarding these squirrels, including population surveys and ability to maintain a sustainable population on Prince on Prince of Wales. Additionally, the Forest Service's conclusions regarding the impacts of the Prince of Wales Logging Project on the Forest Service's ability to maintain sufficient habitat ensure the Prince of Wales Flying Squirrel (and northern flying squirrels generally) remains well-distributed and viable is arbitrary and violates NFMA. In short, the Forest Service acts unlawfully and arbitrarily under NEPA, NFMA, and the other statutes governing timber sale projects with regard to the Prince of Wales Logging Project's impacts on the Prince of Wales Flying Squirrel.

V. THE FOREST SERVICE'S ANALYSIS OF THE PRINCE OF WALES ERMINE IS ARBITRARY AND UNLAWFUL.

The Forest Service also acts arbitrarily and unlawfully with regard to the impacts of the Prince of Wales Logging Project on the Prince of Wales ermine.²⁸⁷ The agency fails to conduct a site-specific impact analysis, ignores expert criticism and concerns, ignores important aspects of problem, and the reaches conclusions that are unsupported by the record. In so doing, the agency acts arbitrarily and unlawfully under NEPA, NFMA, and the other statutes governing timber sale projects.

The Prince of Wales ermine is a newly discovered endemic subspecies. As a result, the discussion above regarding the Forest Service's concerns and treatment of endemics generally also applies.²⁸⁸

²⁸⁵ Smith Prince of Wales Comments at 7.

²⁸⁶ See id.; 2016 Amended Forest Plan at 4-93 (WILD1.XIX (Endemic Terrestrial Mammals)).

²⁸⁷ See DEIS Comment Letter at 33-34.

²⁸⁸ *Supra* pp. 47-54.

The Forest Service also fails to address (or even disclose) that Drs. Joe Cook and Natalie Dawson and Jocelyn Colella, Ph.D. Candidate, have discovered an ermine with a "distinct evolutionary origin and unique genetic properties" that the experts believe "is only found on Prince of Wales Island, and potentially a very few nearby islands (not yet fully assessed)."²⁸⁹ These experts, based on the best available scientific information gathered just in the last couple of years, concluded that the Prince of Wales ermine "is distinctive, but closely related to the subspecies *Mustela erminea haidarum* . . . [which is] listed under the Canadian Federal Species at Risk Act (SARA) and COSEWIC (Committee on the Status of Endangered Wildlife in Canada; S2--Imperiled or Rare) and is subject to protections and prohibitions under the British Columbia Wildlife Act."²⁹⁰

The Forest Service does not dispute that it knows virtually nothing about the Prince of Wales ermine. As the experts explained "[t]he Forest Service lacks understanding of the distribution, habitat needs, or viability requirements of the Prince of Wales ermine."²⁹¹ They explained this lack of information coupled with the generic condition-based analysis means "[i]t is not possible to determine the direct, indirect, or cumulative impacts to wildlife habitat or connectivity that could result from the logging."²⁹² Given lack of scientific understanding and the Prince of Wales ermine's restricted geographic distribution, these experts implored the agency to conduct a project-specific analysis that assessed impacts "relative to the distinctiveness of the taxa, population status, degree of isolation, island size, and habitat associations relative to the proposed management activity,"²⁹³ as the 2016 Amended Forest Plan requires.

The Forest Service ignores all of those concerns. Unlike the DEIS, the FEIS now at least mentions the Prince of Wales ermine.²⁹⁴ Yet the agency never acknowledges the discovery of the Prince of Wales ermine as a distinct subspecies known to inhabit only Prince of Wales Island. The agency fails to analyze the site-specific impacts of the Project on the Prince of Wales ermine, including whether sustainable populations of the ermine will persist on Prince of Wales Island after the Project. The agency, for example, fails to demonstrate how it is designing the timber sales and road building activities to provide for the long-term persistence of the Prince of Wales ermine on Prince of Wales.²⁹⁵

Elsewhere the FEIS speaks generally to ermine across the Tongass, but even at this level, the agency concedes, "[c]urrently there is an incomplete understanding of the ermine distribution

²⁹² Id.

²⁸⁹ Cook Comments at 6 (Prince of Wales Ermine, *Mustela erminea celenda*).

²⁹⁰ Id.

²⁹¹ Id.

²⁹³ *Id.* at 7 (quoting the 2016 Amended Forest Plan at WILD1.XIX.A.2).

²⁹⁴ See FEIS, Appendix D at D-60 to D-61.

²⁹⁵ *Id.*, Appendix D at D-60 to D-61.

and habitat needs."²⁹⁶ Despite this acknowledgement, however, the agency regurgitates the same generic story regarding the conservation strategy and the agency's original assessment of endemic viability from the 1997 Forest Plan almost verbatim from other parts of the FEIS. The agency ultimately fails to assess the impacts of the Project on the Prince of Wales ermine, including whether the population will remain sustainable after implementation. The agency also fails to explain how many individuals must remain to constitute a viable population on Prince of Wales Island (or the Tongass as whole). The agency also fails to explain the quantity and quality of habitat that must remain on Prince of Wales Island to ensure the viability of the Prince of Wales ermine (or the emine generally). The agency also fails to explain whether ermine will remain viable and well-distributed across the Tongass if the Prince of Wales ermine is extirpated from Prince of Wales Island. The agency makes no attempt to assess consequences of the Project on the Prince of Wales ermine as a distinct and apparently unique subspecies on the Tongass or assess its distribution and contribution to ermine across the Tongass.

For all of these reasons, the agency acts arbitrary and unlawfully under NEPA and NFMA and the other statutes governing timber sale projects. The Forest Service's impacts analysis for the Prince of Wales ermine is non-existent, rendering the FEIS unlawful under NEPA. The FEIS ignores expert concerns and makes clear that the agency refuses to conduct the type of project-specific impacts analysis contemplated by the 2016 Amended Forest Plan, including a population survey. Additionally, the Forest Service's conclusions regarding the impacts of the Prince of Wales Logging Project on the agency's ability to maintain sufficient habitat to ensure the Prince of Wales ermine (and ermine generally) remain well-distributed and viable is arbitrary and violates NFMA. Given the lack of analysis, the agency cannot approve the Project without acting in an arbitrary and unlawful manner.

VI. THE FOREST SERVICE'S ANALYSIS OF THE ALEXANDER ARCHIPELAGO WOLF IS ARBITRARY AND UNLAWFUL.

Wolves on Prince of Wales Island have declined substantially since the middle of the 1990s, especially within the north-central portion of Prince of Wales Island.²⁹⁷ As explained below, the Forest Service's analysis of the adverse impacts of the Prince of Wales Logging Projects on wolves is inadequate, arbitrary, and unlawful under NEPA, NFMA, and the other timber sale statutes.²⁹⁸

As an initial point, the Alexander Archipelago wolf is also an endemic subspecies. As a result, the previous discussion regarding the Forest Service's concerns for, treatment of endemics generally also applies to the wolf.²⁹⁹

²⁹⁶ *Id.* at 180.

²⁹⁷ See, e.g., 81 Fed. Reg. at 435, 440 (Jan. 6, 2016) (U.S. Fish and Wildlife Service concluding that all of Game Management Unit 2 only had 50-159 wolves remaining wolves); Big Thorne FEIS at 3-113; D. Person, Big Thorne Appeal Statement at ¶15 (Aug. 15, 2013) (Person Big Thorne Statement).

²⁹⁸ See DEIS Comment Letter at 42-49.

²⁹⁹ *Supra* pp. 47-54.

A. <u>The Forest Service's Impact Analysis Violates NEPA and Is Arbitrary Under</u> <u>NFMA.</u>

The FEIS violates NEPA because it fails to disclose conflicting expert opinion regarding the agency's condition-based analysis and reliance on arbitrary habitat thresholds to assess impacts to wolves. The FEIS is also misleading and incomplete, it provides no basis for the agency's reliance on wolf habitat thresholds and the resulting direct, indirect, and cumulative impacts analyses, and conflicts with evidence in the record. For all of these reasons, the Forest Service reaches arbitrary conclusions regarding the impacts on wolves.

According to the FEIS, "there would be some reduction in the ability of project area [wildlife analysis areas] to maintain a sustainable wolf populations, based on deer habitat capability alone."³⁰⁰ Elsewhere the agency acknowledges that "[o]verall, about 89 percent of the project area WAAs have some level of wolf mortality concern as defined by Person and Logan 2012."³⁰¹ The Forest Service's conclusions regarding the Project's impacts on wolves prove arbitrary.

First, the FEIS fails to disclose any of the conflicting expert opinions challenging the arbitrary nature of the Forest Service's wolf impact analysis. The DEIS concluded the "[o]verall effects to wolves would be 'moderate' due to effects to deep snow habitat,"³⁰² based on the arbitrary habitat thresholds of 20-50 percent described above. Mr. Kirchhoff called this conclusion "startlingly naïve, and based on an ecologically indefensible analysis."³⁰³ He cautioned:

We have spent millions of dollars in research, produced 3 PhD studies, published dozens of peer reviewed papers, and authored population viability analyses (the latest now in review). Factors driving wolf numbers on POW are multiple, and complex. They involve deer habitat, human access, and human motivation. Yet the DEIS creates, and leans on, an overly simplistic habitat index to conclude any effect on wolves will be only 'moderate'.³⁰⁴

Dr. Cook and his colleagues echoed these concerns in their comments: "The Forest Service's reliance on habitat thresholds for endemic mammals has no basis in the contemporary science of conservation biology of island endemics . . . [and] unsubstantiated based on the available science."³⁰⁵ They faulted the Forest Service for failing to examine the distribution of forest stands and connectivity between stands, which "can have dramatic effects on the survivorship"

³⁰⁰ FEIS at 235.

³⁰¹ *Id*.

³⁰² DEIS at 197.

 ³⁰³ M. Kirchhoff, Comments on the Prince of Wales Landscape Level Analysis Project, Draft Environmental Impact Statement, and attachment, at 8 (June 15, 2018) (Kirchhoff Comments).
 ³⁰⁴ Id

³⁰⁵ Cook Comments at 7.

of wolves because they have large home range territories.³⁰⁶ For these reasons, they explained that the site-specific "geography of the proposed logging on [Prince of Wales Island] is essential to evaluating the impact[s]" on wolves.³⁰⁷

The Alaska Department of Fish and Game (ADFG) research suggests that "60 wolves were hunted or trapped last year, 2 illegally [on Prince of Wales Island,]" but the "[t]he total number of wolves killed without permits is, of course, impossible to obtain." ³⁰⁸ According to ADFG, "231 wolves inhabited Prince of Wales and surrounding smaller islands in the fall of 2017."³⁰⁹ Researchers studied seven wolf packs on Prince of Wales Island.³¹⁰

After studying the habitat preferences of the wolves, Gretchen Roffler, a wildlife research biologist with ADFG, concluded wolves "are really strongly avoiding the older clear-cuts on Prince of Wales Island . . . And that's significant because there's a lot of land area moving into that kind of forest."³¹¹ Researchers also learned that "thinning treatments . . . haven't been very effective at creating better habitat for wolves. And when we say better habitat for wolves, we probably really mean better habitat for deer, because that's why wolves would most likely be going into these forests."³¹² ADFG researchers concluded "the amount of habitat available to wolves could decline with an increasing proportion of the forest transitioning to the stem exclusion phase, with potential population-level consequences."³¹³ To assess the potential for population level effects on Prince of Wales Island, the researchers explained "it is necessary to

³¹⁰ *Id.* at 3.

³¹¹ *Id*.

³¹² *Id*. at 4.

³⁰⁶ *Id*.

³⁰⁷ *Id.* The Forest Service's use of "condition-based NEPA" fails to account for local knowledge of habitat conditions or spatial location of habitat, because the agency is not telling anyone where the logging and road building will take place. The 2016 Amended Forest Plan prescribes: "Local knowledge of habitat conditions, spatial location of habitat, and other factors need to be considered by the biologist rather than solely relying upon model outputs." 2016 Amended Forest Plan at 4-91 (WILD1.XIV.A.2). The agency is required to use the "[u]se the most recent version of the interagency deer habitat capability model and field validation of local deer habitat conditions to assess deer habitat." *Id.* It acts unlawfully in failing to do so in this case.

³⁰⁸ F. Rudebusch, *Wolves are Losing Ground to Industrial Logging in Southeast Alaska*, EcoWatch at 1-2 (2018); *see also* G. Roffler, D. Gregovich, K. Larson, *Resource Selection by Coastal Wolves Reveals the Seasonal Importance of Seral Forest and Suitable Prey Habitat*, 409 Forest Ecology & Mgmt. 190-201 (2018).

³⁰⁹ Rudebusch, *supra* note 308 at 2.

³¹³ G. Roffler *et al.*, *supra* note 308 at 199.

gain further knowledge about wolves' use of alternative prey," which will "provide insights for understanding the potential consequences of landscape-level management practices."³¹⁴

The FEIS fails to address (or even disclose) any of these conflicting expert opinions. This violates NEPA and renders the agency's analysis arbitrary under NFMA.

Second, the FEIS still relies on the arbitrary habitat thresholds of 20 and 50 percent to assess impacts to wolves.³¹⁵ The Forest Service, however, provides no support whatsoever for this position. The FEIS states:

If a habitat threshold has been identified for the species chosen for this analysis, those thresholds are used in the analysis; however, sometimes no thresholds have been identified for a specific species and in those cases, a threshold was used for a similar species. These thresholds are discussed under the habitats the species are associated with.³¹⁶

The FEIS, however, never explains why the Forest Service relies on habitat thresholds of 20 and 50 percent for wolves. It appears the agency simply never updated the analysis after it deleted the references to Soule and Sanjayan (1998) and Fahrig (1997).³¹⁷ In the more than 20 years since the agency adopted the 1997 Forest Plan, the agency has never relied on habitat thresholds of any percent to assess the impacts of logging on wolves.³¹⁸ The Forest Service's reliance on

³¹⁴ *Id*.

³¹⁵ See FEIS at 235.

³¹⁶ *Id.* at 173.

³¹⁷ *Supra* pp. 42-43.

³¹⁸ See, e.g., PR 10 00102 (L. H. Suring et al., A Proposed Strategy for Maintaining Well-Distributed, Viable Populations of Wildlife Associated with Old- Growth Forests in Southeast Alaska, Review Draft (May 1993)); PR 603 1610 (U.S. Forest Service, Tongass National Forest Land and Resource Management Plan, Interagency Conservation Strategy Review: An Assessment of New Information Since 1997, Workshop Summary Report (Jan. 2008)); PR 603 427 (C. Iverson, U.S. Forest Service, Memorandum to Tongass Land Management Plan (TLMP) Planning File, Re. Alexander Archipelago Wolf Viability Assessment Panel Summary (Jan. 31, 1996)); PR 603 0424 (C. Iverson, U.S. Forest Service, Summary of the 1997 Alexander Archipelago Wolf Risk Assessment Panel (May 7, 1997)); PR 10 00101 (A. R. Kiester and C. Eckhardt, Review of Wildlife Management and Conservation Biology on the Tongass National Forest: A Synthesis with Recommendations (Mar. 1994)); PR 603 0190 (D. K. Person et al., The Alexander Archipelago Wolf: A Conservation Assessment, U.S. Forest Service General Technical Report PNW-GTR-384 (Nov. 1996)); PR 603 6029 (D. K. Person et al., Letter to Beth Pendleton, U.S. Forest Service (Sept. 19, 1997)); PR 736 3739 (D. K. Person, Statement of David K. Person Regarding the Big Thorne Project, Prince of Wales Island (Aug. 15, 2013) (Person Big Thorne Statement)); D. Person, Big Thorne Draft Supplemental Information Report (Jun. 23, 2014); PR 736 3243 (D. K. Person, Eleven messages by Dave Person and others at ADF&G about the Big Thorne Project (Feb. 28 to Apr. 18, 2011)) . . . (continues next page).

habitat thresholds for wolves is arbitrary given there is no support for the agency's position and it runs contrary to the record.

Third, the Forest Service's analysis of direct and indirect effects on wolves is arbitrary and incomplete. The agency's entire impacts analysis regarding the Project's direct and indirect impacts on wolf mortality amounts to only two sentences:

Alternative 2 proposes to build about 35 miles of NFS road and 129 miles of temporary road at the project area scale. It is unknown where on the landscape the road building would occur.³¹⁹

Elsewhere the agency provides a single paragraph to characterize the direct and indirect impacts arising from the loss of wolf habitat:

Alternative 2 includes timber harvest mitigation in timber harvest polygons within 5 miles of a subsistence community in WAAs with 10 percent or more deer harvested of the estimated DHC. This would occur in WAAs 1214, 1315, 1317, 1318, and 1420. See discussion on deer habitat above. See discussion above for impacts to non-winter, average snow, and deep snow deer habitat and the effects of young-growth treatments and harvest.³²⁰

Fourth, the Forest Service's analysis of cumulative effects on wolves is non-existent. With regard to the cumulative effects, the FEIS does not assert that the overall effects to wolves would be moderate, as the DEIS did.³²¹ Now the agency fails to include any conclusion regarding the overall effects on wolves. With regard to habitat loss, the FEIS states only: "Overall effects to wolves are due to effects to deep snow habitat (deer); see discussion above under deep snow habitat."³²² But the cumulative effects section and the conclusion section addressing "deep snow habitat" both ignore wolves altogether.³²³ With regard to road building and wolf mortality, the agency never explains the impacts on wolves.³²⁴

³²² FEIS at 228.

PR 736_4322 (D. K. Person and T. J. Brinkman, *Succession Debt and Roads: Short- and Long-Term Effects of Timber Harvest on a Large-Mammal Predator-Prey Community in Southeast Alaska, in* North Pacific Temperate Rainforests: Ecology & Conservation 143-167 (Gordon H. Orians and John W. Schoen, eds., Univ. of Wash. Press 2013)).

³¹⁹ FEIS at 234.

³²⁰ FEIS at 225.

³²¹ DEIS at 197.

³²³ See id. at 206-09.

³²⁴ *Id.* at 234.

Fifth, the Forest Service fails to analyze the impacts to wolves in the manner required by the 2016 Amended Forest Plan.³²⁵ The agency fails to examine the Project's resulting impacts on deer habitat capability at any meaningful level. The agency also fails to examine or explain whether the Project will destroy so much wolf habitat that the wolf populations are unsustainable.

The Forest Service violates NEPA because the FEIS fails to account for any of these considerations, including conflicting expert opinions regarding Forest Service's approach to the wolf impact analysis and the agency's conclusions. The agency also acts arbitrarily under NFMA because the agency ignores expert opinions, fails to justify its conclusions, and reaches conclusions that are unsupported by the record.

B. <u>The Forest Service Acts Unlawfully By Failing to Implement the Wolf</u> <u>Management Program.</u>

The 2016 Amended Forest Plan includes a standard that requires the Forest Service to develop and implement a "Wolf Habitat Management Program." The agency is refusing to implement that program. Approving the Prince of Wales Logging Project without implementing the Wolf Habitat Management Program is arbitrary and violates NFMA, including the agency's substantive viability obligations.

Since 1997, the Forest Service has included forest plan provisions aimed at maintaining sustainable wolf populations. "Among these is a standard to develop and implement an interagency Wolf Habitat Management Program in cooperation with the Alaska Department of Fish and Game (ADF&G) and U.S. Fish and Wildlife Service (USFWS), where wolf mortality concerns have been identified."³²⁶ The 2016 Amended Forest Plan includes that standard: "Where wolf mortality concerns have been identified, *develop and implement* a Wolf Habitat Management Program in conjunction with ADF&G."³²⁷

In 2017, after an interagency finding of unsustainable wolf mortality on Prince of Wales Island, the Forest Service, U.S. Fish and Wildlife, and Alaska Department of Fish and Game published the GMU 2 Wolf Recommendations. The agencies concluded:

Because deer are the principle prey of wolves in GMU 2, factors affecting deer habitat and deer populations are integral to wolf population dynamics in GMU 2. Therefore, key components of successful wolf habitat management in GMU 2 include managing deer habitat capability, especially in important winter deer habitats; and minimizing human-caused wolf mortality via road management

³²⁵ *Supra* pp. 39-41.

³²⁶ 833_0847 (U.S. Forest Service *et al.*, Wolf Technical Committee, Interagency Wolf Habitat Management Program: Recommendations for Game Management Unit 2, Management Bulletin R10-MB-822 at 1 (2017) (GMU 2 Wolf Recommendations)).

³²⁷ 2016 Amended Forest Plan at 4-91 (WILD1.XIV.A.1) (emphasis added).

and regulatory mechanisms through consultation with advisory committees, advisory councils, and the public. In addition, consideration of den management and human dimensions are critical to successful wolf management and are included as key components.³²⁸

The agencies provide numerous recommendations for habitat management (both old-growth and young-growth), road management, and wolf management and mortality.

The Forest Service is refusing to implement any of these components when it approves the Prince of Wales Project, saying it will only "meet Forest Plan Direction."³²⁹ In doing so, the agency violates the 2016 Amended Forest Plan. It also violates NFMA because the Forest Service's viability conclusions regarding the wolf are based in part on this standard, and the 2016 Amended Forest Plan must be interpreted in a way that requires the agency to manage in a manner that accounts for these concerns, consistent with NFMA requirements. To the extent it is only a guideline, then the agency acts arbitrarily in basing its conclusions on deer habitat capability and wolf habitat management on optional guidelines. Such an alternative interpretation renders the 2016 Amended Forest Plan unlawful under NFMA.

C. <u>The Forest Service Acts Unlawfully in Failing to Address the USFWS Wolf</u> <u>Finding.</u>

The U.S. Fish & Wildlife Service raised troubling concerns regarding the status of wolves on Prince of Wales Island and Game Management Unit 2.³³⁰ In light of these concerns, the Forest Service acts arbitrarily when it concludes it can approve the Prince of Wales Logging Project for two reasons. First, the Forest Service fails to explain whether/why wolves will remain sustainable on Prince of Wales Island or Game Management 2 given the additional loss of habitat and prey due to logging and the increases in wolf mortality due to roadbuilding. Second, the agency reaches an arbitrary conclusion that it can approve the Project and still fulfill its substantive obligation to ensure well-distributed wolf populations remain viable on the Tongass.

By way of background, the Forest Service has long recognized that the wolves on Prince of Wales Island play a unique role in the agency's ability to maintain viable and well-distributed populations of wolves forest wide:

³²⁸ GMU 2 Wolf Recommendations at 3-4.

³²⁹ FEIS at 48 (Alternative 2).

³³⁰ See generally 81 Fed. Reg. 435 (Jan. 6, 2016).

[T]he population on [Prince of Wales] Island is genetically isolated from other Tongass populations, *which presents profound implications for maintaining well-distributed wolf populations* in light of local declines, given that these populations are are [*sic*] more sensitive to human activity and habitat disturbance than wolf populations elsewhere in the state (Schoen and Person 2007).³³¹

Yet according to the U.S. Fish and Wildlife Service, the wolves on Prince of Wales Island are facing the threat of extirpation due to old-growth logging even without the record-breaking loss of habitat relating to the Prince of Wales Logging Project. In 2016, the U.S. Fish and Wildlife Service concluded that logging is responsible for the declining wolf populations in the Project area:

These findings indicate that for this wolf population, availability of non-ungulate prey does not appear to be able to compensate for declining deer populations, especially given other present stressors such as wolf harvest . . . Therefore, we conclude that timber harvest is affecting the GMU 2 wolf population by reducing its ungulate prey and likely will continue to do so in the future.³³²

Given the adverse impacts from old-growth logging:

[T]he U.S. Fish and Wildlife Service (USFWS) concluded there was a reasonable risk that wolves could be reduced, or perhaps even extirpated, from Prince of Wales Island and the smaller surrounding islands as a result of declining prey abundance and increasing density of roads and subsequent human-induced mortality risk to wolves.³³³

The U.S. Fish and Wildlife Service also echoed the concerns that the unique nature of the wolves on Prince of Wales presents challenging management considerations. As an initial matter, "[o]nly one Alexander Archipelago wolf population, the GMU 2 population, relies solely on deer as an ungulate prey species and therefore it is more vulnerable to declines in deer numbers

³³¹ 2008 FEIS at 3-281 (emphasis added); see also also PR 603_0879 (B.V. Weckworth et al., A Signal for Independent Coastal and Continental histories among North American wolves, MOLECULAR ECOLOGY 14: 917-931 (2005); PR 769_05_000489 (B.V. Weckworth et al., Phylogeography of wolves (Canis lupus) in the Pacific Northwest, JOURNAL OF MAMMALOGY, 91(2):363-375 (2010); B.V. Weckworth et al., Genetic distinctiveness of Alexander Archipelago wolves (Canis lupus ligoni): Reply to Cronin et al. (2015), JOURNAL OF HEREDITY 1-3 (2015)); E. A. Lacey, Ph.D. President, American Society of Mammalogists, Letter to Dr. Kimberley Titus, Alaska Department of Fish and Game (Nov. 1, 2015).

³³² 81 Fed. Reg. at 445.

³³³ FEIS at 223; *see also* 81 Fed. Reg. at 440, 452, 455-56, 458.

compared to all other populations."³³⁴ Additionally, because logging "has occurred disproportionately in this area . . . deer are projected to decline by approximately 21 to 33 percent over the next 30 years, and, correspondingly, the wolf population is predicted to decline by an average of 8 to 14 percent (Gilbert et al. 2015, pp. 19, 43)."³³⁵ Further, "the GMU 2 wolf population already has been reduced by about 75 percent since 1994."³³⁶ The U.S. Fish and Wildlife Service reported that Game Management Unit 2 only has 50-159 wolves.³³⁷

Based on this record, the Forest Service fails to explain whether (or why) sufficient old-growth habitat (and deer) will remain on Prince of Wales Island to support sustainable wolf populations as the 2016 Amended Forest Plan contemplates.³³⁸ The agency errs by failing to account for these considerations in reaching a conclusion regarding the Project's impacts on the relationship between wolves, deer, and human deer hunters.

For similar reasons, the Forest Service reaches an arbitrary conclusion that it can approve the Prince of Wales Logging Project and still meet NFMA's substantive obligation to manage habitat in such a way as to ensure that wolves remain well-distributed and viable on the Tongass. The agency has never analyzed and evaluated what it means to have well-distributed wolf populations across the Tongass. Thus, the implications of losing wolves on Prince of Wales Island (or even most of the wolves) remains unexamined. The Forest Service acts arbitrarily and unlawfully by approving the Prince of the Wales Logging Project without conducting this analysis and updating its viability analysis for wolves based on the contemporary understanding that wolves are already at risk of extirpation on Prince of Wales Islands and Game Management Unit 2. The Prince of Wales Logging Project and the agency's failure to examine the resulting adverse impacts makes a bad situation dire.

VII. THE FOREST SERVICE'S ANALYSIS OF SITKA BLACK-TAILED DEER IS ARBITRARY AND UNLAWFUL.

Like the DEIS, the FEIS's treatment of Sitka black-tailed deer is inadequate, incomplete, and arbitrary. As explained below, the Forest Service ignores experts with decades of experience with Tongass management express widespread concerns regarding the agency's assessment of the Prince of Wales Logging Project's impacts on deer.³³⁹

³³⁶ *Id.* at 444-45.

³³⁷ *Id*. at 440.

³³⁸ To the extent the Forest Service believes it provides such an explanation, then the agency reaches an arbitrary conclusion based on the evidence before the agency.

³³⁹ See DEIS Comment Letter at 39-42.

³³⁴ 81 Fed. Reg. at 444.

³³⁵ *Id*; *see* Person Big Thorne Statement at PDF 9 (explaining the wolf population in that area was 300-350 animals in 1995).

First, like the other species, the Forest Service bases its impacts analysis for deer on an arbitrary habitat threshold. In the FEIS, the agency explains, "[n]o habitat thresholds have been determined for deer."³⁴⁰ Undaunted by the lack of the scientific support, the FEIS states: "No literary habitat thresholds have been identified for deer; 50 percent was used in this analysis."³⁴¹ The FEIS never explains why the agency selected 50 percent.

Like the experts discussed above, Dr. John Schoen faulted the Forest Service's use of the arbitrary habitat thresholds to assess the Prince of Wales Logging Project's impacts on deer:

The DEIS stated that "Effects were assumed to be minor if the percentage of habitat type remains above 50 percent of the habitat calculated to be present in 1954." On northern [Prince of Wales Island], many VCUs have had timber harvests of 50% or more. The DEIS uses these figures in relation to a threshold of population persistence. However, persistence of a population does not extrapolate to healthy or useable population levels. *Persistence* of deer on northern [Prince of Wale Island] will not necessarily meet *human demand* for subsistence deer harvests nor will persistence meet the needs of wolves that depend on deer as their primary prey resource. These issues must be evaluated and explained in much greater detail than has been done in the DEIS.³⁴²

In the response to comments, the FEIS defends the reliance on habitat thresholds, explaining the agency's condition-based analysis fails to provide site-specific information that the 2016 Amended Forest Plan requires the agency to base its impacts analysis:

The Forest Plan says to provide where possible, sufficient deer habitat and to not solely rely on the 18 deer per square mile and to also use local knowledge, spatial location, and other factors. Due to lack of site specificity, we used literature habitat thresholds and estimated deer habitat capability to describe effects to deer habitat (winter and summer) at the WAA and GMU 2 scale.³⁴³

In response to concerns that the Forest Service is managing deer for mere persistence (rather than accounting for the interactions between deer, wolves, and human hunters),³⁴⁴ the FEIS states: "Persistence is the continued or prolonged existence of something."³⁴⁵ Based on the record

³⁴² J.W. Schoen, Ph.D., Comments on Prince of Wales Landscape Level Analysis at 3 (June 14, 2018) (Schoen Comments).

³⁴³ FEIS, Appendix D at D-54 to D-55.

³⁴⁴ Schoen Comments at 3.

³⁴⁵ FEIS, Appendix D at D-76.

³⁴⁰ FEIS at 177; *id.* at 201 (similar), 204 (similar).

³⁴¹ FEIS at 183.

before the agency, the Forest Service acts unlawfully in basing its impacts analysis on habitat thresholds, managing deer for persistence, and failing to disclose or account for Dr. Schoen's criticism of the agency's approach.

Second, the Forest Service fails to account for expert concerns regarding the agency's reliance on high volume productive old-growth for its deer impact analysis, instead of large-tree productive old-growth (known as SD67). For decades prior to the Prince of Wales Logging Project, the Forest Service consistently based its impacts analysis on large-tree productive oldgrowth. As the agency explained in the 2016 Amended Forest Plan FEIS, "[t]here are approximately 5 million acres of [productive old-growth] forest on the Tongass National Forest," and "42 percent is high-volume [productive old-growth] ... of which 25 percent is large-tree [productive old-growth] (SD 67 type)]."³⁴⁶ Importantly, "[1]arge-tree [productive old-growth] is not well-distributed across the Forest, with close to 40 percent concentrated in the North Central Prince of Wales and Admiralty Island biogeographic provinces."³⁴⁷ The Forest Service has consistently explained that "[e]levation is considered one of the most significant landscape variables influencing the distribution and availability of [productive old-growth] forest" with stands at or below 800 feet hold[ing] the highest value for many wildlife species."³⁴⁸ In 2008, "[a]pproximately 10 percent of the remaining [productive old-growth in Southeast Alaska is mapped as the largest tree category (SD67)."³⁴⁹

Given the importance of large-tree productive old-growth, Dr. Schoen explained:

I strongly recommend that the [Forest Service] re-evaluate winter deer habitat and impacts of the chosen alternative using the large-tree (SD67) habitat type. Continued highgrading large-tree old growth will have significant impacts on winter deer habitat and habitat for other wildlife species dependent on these forest types as well as affecting overall forest diversity.³⁵⁰

Matt Kirchhoff also expressed concerns regarding the agency's use of high volume productive old-growth in the DEIS: "I am surprised . . . that the [Forest Service] is using [high volume productive old-growth] instead of SD67 as the chosen descriptor for deep snow habitat for deer."³⁵¹ Mr. Kirchhoff explained, "[t]he Forest Service has consistently objected to the use of

³⁴⁹ 2008 FEIS at 3-152.

³⁵⁰ Schoen Comments at 4.

³⁵¹ Kirchhoff Comments at PDF 3.

³⁴⁶ 2016 Amended Forest Plan FEIS at 3-191.

³⁴⁷ *Id*.

³⁴⁸ *Id.*; *see also* 2008 FEIS at 3-149 ("large-tree [productive old-growth] is considered of highest value" for wildlife and aesthetics).

volume class as a wildlife habitat descriptor."³⁵² He noted that "[a] stand of older, even-aged trees may have high volume, but the closed canopy makes it poor habitat for deer . . . [and] [b]y comparison, a gap-phase old-growth stand that features tall, or large diameter trees, is good at intercepting snow and providing forage."³⁵³ He advised the Forest Service to "defin[e] deep snow habitat for deer as 'SD67 stands below 800 feet elevation' [because doing so] would yield a more meaningful, accurate analysis."³⁵⁴ The FEIS ignores these concerns.

Third, the FEIS fails to disclose that Mr. Kirchhoff also questioned the agency's decision to depart from the definition of deep-snow habitat. He explained:

For reasons that are unclear, the DEIS departs from the definition used in the Forest Plan and redefines deep-snow habitat as [high volume productive old-growth] *on south-facing slopes only* . . . This is problematic because (a) many deer do not have access to south-facing habitat (if they inhabits [*sic*] a north-facing watershed), and (b) deer that inhabit north-facing habitat are most affected by snow, and are most dependent on deep-snow habitat.³⁵⁵

For these reasons, he cautioned "[n]arrowing the definition of deep-snow habitat will have significant repercussions for deer and subsistence hunters," which the DEIS failed to explain.³⁵⁶ He urged "[t]he FEIS should adopt the definition of deep snow habitat that includes all aspects, as in the [2016 Amended] Forest Plan."³⁵⁷

Despite all of these concerns, the FEIS also relies on high volume productive old-growth instead of large-tree habitat type.³⁵⁸

Fourth, the Forest Service ignores expert concerns regarding the agency's failure to account for the impacts of high-grading. Dr. John Schoen raised detailed concerns relating to the Forest Service's continuing pattern of high-grading on Prince of Wales Island and consequences of the

³⁵⁴ *Id.* (emphasis omitted).

³⁵⁵ *Id.* at PDF 3 (internal reference omitted).

³⁵⁶ Id.

³⁵⁷ *Id.* at 4 (emphasis omitted).

³⁵⁸ See, e.g., FEIS at viii ("deep snow habitat (HPOG on south-facing stands below 800 feet in elevation"), 16 (describing units of measure, including "[a]cres harvested of HPOG habitat in south-facing stands below 800 feet in elevation (deep snow habitat)")

³⁵² *Id.* (citing J.P. Caouette *et al.*, *Deconstructing the Timber Volume Paradigm in Management of the Tongass National Forest*, U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station (2000)).

³⁵³ Id. (citing M.D. Kirchhoff & J.W. Schoen, Forest Cover and Snow: Implications for Deer Habitat in Southeast Alaska, 51 JOURNAL OF WILDLIFE MANAGEMENT 28 (1987)).

Prince of Wales Logging Project in light of that historical practice.³⁵⁹ He explained, for example, that deer have already declined in some heavily logged drainages on Prince of Wales Island, forcing deer "into closed-canopy second growth with low habitat values."³⁶⁰ He urged the agency to "recognize the shifting baseline of historic harvest levels," because "[w]hat appears to be a moderate harvest level in 2018, is a dramatic harvest since the 1950s when industrial forestry began on Prince of Wales Island."³⁶¹ He cautioned that the "cumulative impacts of clearcutting must be honestly evaluated in any EIS."³⁶²

Mr. Kirchhoff also questioned the Forest Service's failure to address the high-grading concerns. He explained:

The DEIS contains an important table (43, page 186) that reports (a) the percentage of large-tree old growth remaining in each analysis area, (b) the percentage that will be cut in the [Prince of Wales Logging Project], and (c) the percentage that will remain. Six of the 10 analysis area [*sic*] will have less than half remaining. One will have just 15% remaining. If one adds the filter of "contiguous" large-tree old growth, as Albert and Schoen (2013) do, the statistics are even more alarming. While my concerns are primarily ecological—tied to the important functional role these stands play for wildlife (deer in winter, especially), the Forest Service should at least be recognizing that a sale program that is economically dependent on a rare and dwindling resource is not sustainable. The FEIS should explore this topic in more detail, and take steps to stop high-grading during these twilight years of old-growth logging.³⁶³

Table 43 only accounted for direct/indirect losses of SD67 forest and the left-hand column only accounts for National Forest Service land (although not labeled as such).³⁶⁴ The DEIS failed to provide similar table for cumulative effects, which would include past and future losses on all landownerships.

In response, the comparable table in the FEIS now accounts for habitat thresholds of less than 30 percent, 30-50 percent, 50-60 percent, 60-80, and greater than 80.³⁶⁵ The Forest Service, however, provides no basis for relying on these thresholds and still fails to analyze and explain why the agency believes this is a sustainable enterprise. As Mr. Kirchhoff noted, the Forest

³⁵⁹ See Schoen Comments at 2.

³⁶⁰ *Id*.

³⁶¹ *Id*.

³⁶² *Id*.

³⁶³ Kirchhoff Comments at PDF 6-7 (emphasis and internal reference omitted).

³⁶⁴ DEIS at 186 & Tbl. 43.

³⁶⁵ FEIS at 213, Tbl. 414.

Service's unanswered questions regarding the percent of large trees that will remain after the Prince of Wales Logging Project reflect both economic and ecological sustainability concerns.³⁶⁶ The FEIS fails to address this reality.

Ultimately, the Forest Service's only response to the experts' concerns regarding the continuing pattern of high-grading on Prince of Wales Island is to promise that "[d]uring implementation of the POW LLA Project, more site-specific information for timber harvest activities will be provided to the public."³⁶⁷ This is the very problem. The agency fails to conduct the necessary analysis and justify its substantive conclusions before it approves the Prince of Wales Logging Project.

In sum, the Forest Service fails to address any of these concerns and in so doing ignores important aspects of the problem. In so doing, the agency acts contrary to NEPA, NFMA, and the other statutes governing timber sales.

VIII. THE FOREST SERVICE'S ANALYSIS OF QUEEN CHARLOTTE GOSHAWKS IS ARBITRARY AND UNLAWFUL.

The Forest Service fails to evaluate the consequences of the Prince of Wales Logging Project on the population of goshawks on Prince of Wales Island in any credible way. The agency ignores harmful information, including changes caused by the 2016 Amended Forest Plan and instead only discloses information that is supportive of its logging decision. As explained below, the agency violates NEPA and acts arbitrarily and unlawfully under NFMA and the other statutes governing timber sales.³⁶⁸

As an initial matter, "the Queen Charlotte goshawk is recognized as a distinct subspecies, and is endemic to coastal rainforests from Vancouver Island to northern Southeast Alaska."³⁶⁹ Thus, the discussion above regarding the Forest Service's concerns for, treatment of, endemics generally also applies to goshawks.³⁷⁰

As Dr. Smith explained in his comments on the DEIS, "maintaining sufficient habitat to support a [Queen Charlotte goshawk] breeding population on [Prince of Wales] is fundamental to maintaining the viability of the [Queen Charlotte goshawk]."³⁷¹ The FEIS, however, fails to address the fact that a spatially explicit analysis of the 2016 Amended Forest Plan's conservation strategy concluded that the Forest Service is failing to retain sufficient habitat to account for

³⁶⁶ Kirchhoff Comments at PDF 6-7.

³⁶⁷ FEIS, Appendix D at D-31 ("Site-specific stand data, along with IDT input, will be used to develop a prescription for treatments of the stand and its long-term goals.")

³⁶⁸ See DEIS Comment Letter at 35-38.

³⁶⁹ 2008 Amended Forest Plan FEIS at 3-226.

³⁷⁰ *Supra* pp. 47-54.

³⁷¹ Smith Prince of Wales Comment at 9-10.

three critical spatial components of the nesting home range: nest area, post-fledging family area, and foraging area.³⁷² As Dr. Smith explained, the Forest Service's "expectation that, in intensively managed landscapes, preferred habitat contributed by other elements of the TLMP conservation strategy (*e.g.*, old-growth reserves, riparian or shoreline buffers) will mitigate this deficiency was *not supported* by a spatially explicit analysis of 136 virtual [post-fledging family areas] created from actual nest sites."³⁷³ The FEIS fails to grapple with the fact that Forest Service is failing to maintain sufficient habitat (instead of presenting it in terms of arbitrary thresholds or total amount) in the three critical spatial components of the nesting home range. As Dr. Smith explained in his comments, this leads to a variety of fundamental questions the agency must answer regarding the role Prince of Wales Island and the Queen Charlotte Goshawk play to overall goshawk distribution and viability on the Tongass.³⁷⁴

The Forest Service acts unlawfully and arbitrarily because it fails to disclose or reconcile any of these expert concerns. Instead, the agency claims it added information to the Biological Evaluation, ³⁷⁵ but the agency did not make this document available to the public in the planning record.

³⁷⁴ *Id.* at 12-13.

³⁷⁵ FEIS at 193.

³⁷⁶ *Cf.* DEIS at 170 *with* FEIS at 192.

³⁷⁸ *Id.* at 2-3.

³⁷⁹ *Id.* at 3.

³⁸⁰ Id.

³⁷² W. P. Smith, Proposed Forest Plan Amendment Further Compromises Established Conservation Measures to Sustain Viable Northern Goshawk Populations at 3 (2016).

³⁷³ Smith Prince of Wales Comments at 10.

³⁷⁷ Smith Prince of Wales Comments at 2.

The agency acts unlawfully and arbitrarily in failing to confront any of these contrary expert concerns.³⁸¹ Indeed, based on the "condition-based" analysis, the Forest Service fails to examine any of these considerations because it has not decided where, when, or how specific logging projects will transpire. Absent that site-specific analysis, it is arbitrary to base the impacts analysis on the assumption that goshawks will simply fly away from logging disturbance—there is no evidence to suggest that habitat is available and not already inhabited.

In the end, the Forest Service fails to address conflicting expert opinion (addressing the both sitespecific impacts and the 2016 Amended Forest Plan related impacts), empirical data and analyses that the agency is failing to maintain sufficient breeding habitat for goshawk pairs in managed landscapes of the Tongass. The agency fails to assess the site-specific impacts of the Prince of Wales Logging Project. The Forest Service violates NEPA because it fails to explain to the public or decision-maker what impacts the Project will have on the goshawk population, including the ability to maintain well-distributed viable populations. The Forest Service also proffers an arbitrary and unlawful decision under NFMA and the other statutes governing timber sales.

ALASKA ROADLESS RULE

Since the DEIS comment period,³⁸² the Forest Service initiated a process to evaluate exempting the Tongass National Forest from the Roadless Rule or otherwise limiting or changing the scope of the Roadless Rule's application to the forest. The FEIS, however, fails to evaluate the impacts of the activity as a reasonably foreseeable activity. The agency violates NEPA in failing to consider the consequences of the possible change in land management. Additionally, the agency based its viability conclusions underling the 2016 Amended Forest Plan, in part, on the fact that the Roadless Rule protected more of the Tongass than the 1997 Forest Plan when the agency prepared its viability analyses.

In August 2018, the Forest Service announced it was "initiating an environmental impact statement (EIS) and public rulemaking to address the management of inventoried roadless areas on the Tongass National Forest within the State of Alaska."³⁸³ The agency explained that the "rulemaking is the result of a petition submitted by Governor Bill Walker's administration in January 2018 on behalf of the State of Alaska."³⁸⁴ In the petition, the State of Alaska "request[ed] that the Secretary of Agriculture grant this petition and direct the USDA and USFS

³⁸¹ FEIS at 192-93.

³⁸² The DEIS Comment Letter did not address this issue given the Forest Service acted after the close of the comment period.

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

³⁸⁴ *Id*.

to immediately undertake a rulemaking to consider once again exempting the Tongass from the Roadless Rule."³⁸⁵ The Forest Service expects to publish a final rule in June 2020.³⁸⁶

Despite these actions, however, the FEIS fails to analyze the impacts of the rulemaking effort. In Appendix C to the FEIS, the Forest Service analyzes present and reasonably foreseeable future activities,³⁸⁷ but fails to include the Forest Service's rulemaking.³⁸⁸ As explained below, the Forest Service acts arbitrarily and capriciously in failing to examine the impacts of the rulemaking effort, which results in a faulty analysis of the possible cumulative impacts from reasonably foreseeable activities.

"NEPA requires that where several actions have a cumulative ... environmental effect, this consequence must be considered in an EIS."³⁸⁹ The CEQ regulation defines cumulative impact as follows:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.³⁹⁰

The Courts make clear "projects need not be finalized before they are reasonably foreseeable."³⁹¹ Indeed, "reasonably foreseeable future actions need to be considered even if they are not specific proposals."³⁹²

³⁸⁶ 83 Fed. Reg. at 44,253.

³⁸⁷ FEIS, Appendix C at C-1; *see also id.* at 2 ("Appendix C lists other activities on all ownerships that are present and reasonably foreseeable in the project area, which were considered during the analysis for this project").

³⁸⁸ See id. at C-1 to C

³⁹⁰ 40 C.F.R. § 1508.7.

³⁸⁵ Governor B. Walker, Letter to Secretary Sonny Perdue, U.S. Department of Agriculture, with attached State of Alaska Petition for USDA Rulemaking to Exempt the Tongass National Forest From Application of the Roadless Rule and Other Actions at 2 (Jan. 19, 2018).

³⁸⁹ N. Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067, 1076 (9th Cir. 2011) (quoting *Te–Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 608 F.3d 592, 602 (9th Cir.2010) (citation and internal quotation marks omitted)).

³⁹¹ N. Plains Res. Council, 668 F.3d at 1078.

³⁹² *Id.* at 1079 (quoting EPA, Consideration of Cumulative Impact Analysis in EPA Review of NEPA Documents, Office of Federal Activities, 12–13 (May 1999)); *see also* EPA,

By failing to consider the impacts of the new roadless rulemaking and the change in land management to allow logging on even more parts of Prince of Wales Island and the surrounding area, the Forest Service acts in an arbitrary fashion. NEPA requires the agency to evaluate the complete scope of cumulative impacts to make an informed decision. For example, if the agency had examined the impacts of the rulemaking, the agency might have selected different alternatives for consideration in the FEIS given the additional loss of habitat on Prince of Wales Island and the surrounding islands.³⁹³ As it stands, the agency's analysis is incomplete and misleading.

Additionally, the Forest Service acts arbitrarily under NFMA by failing to consider the impacts of the rulemaking. When the agency adopted the 2016 Amended Forest Plan, it defended its conclusions regarding the ongoing validity of the wildlife conservation strategy and the decades old viability conclusions based on the Roadless Rule's protections. In the Record of Decision adopting the 2016 Amended Forest Plan, the Tongass Forest Supervisor concluded:

Thus, the transition to young-growth harvest, together with other changes to Tongass forest management (especially the 2001 Roadless Rule), would result in about 400,000 acres of old-growth forest remaining in 2095 than was projected to have been harvested by the panels assessing viability for the 1997 plan . . . Therefore, many OGRs and non-Development LUDs would be surrounded by additional unharvested areas of POG forest and matrix lands would contain a substantially greater amount of POG forest than the amounts assumed during the development of the Forest Plan Conservation Strategy. Thus, panel assessment conclusions were based on assumptions that the Tongass would support far less old-growth forest than will be realized under the Selected Alternative.

The Selected Alternative will retain the ability of the Conservation Strategy to maintain a functional and interconnected old-growth ecosystem across the planning area and the overall functioning of the Conservation Strategy in terms of its ability to maintain viable, well-distributed populations of wildlife across the planning area will not be affected. The amended Plan is consistent with the NFMA requirement to "provide for diversity of plant and animal communities based on the suitability and capability of the specific

Consideration of Cumulative Impact Analysis in EPA Review of NEPA Documents, Office of Federal Activities at PDF 13 (May 1999).

³⁹³ See CEQ, Considering Cumulative Effects Under the National Environmental Policy Act at v (Jan. 1997) ("it is also critical to incorporate cumulative effects analysis into the development of alternatives . . . [and] essential to developing appropriate mitigation and monitoring").

land area to meet overall multiple-use objectives" (16 U.S.C. 1604(g)(3)(B)).³⁹⁴

The Forest Service also explained in the 2016 Amended Forest Plan FEIS that the agency justified its conclusions regarding the continuing validity of the conservation strategy, wildlife impacts, and NFMA viability, in part, on the fact that the Roadless Rule protected additional areas from logging than the 1997 Forest Plan and original wildlife panels contemplated.³⁹⁵ For example, "[a]lthough [inventoried roadless areas] were not part of the original 1997 Conservation Strategy, they add value by providing large expanses of roadless refugia, which are important to wide-ranging wildlife species such as wolves, brown bears, marten, and less mobile species such as flying squirrels and amphibians."³⁹⁶

As the Ninth Circuit has explained to the Forest Service before: "The absence of a reasoned explanation for disregarding previous factual findings violates the APA."³⁹⁷ Stated more directly, the agency "cannot simply disregard contrary or inconvenient factual determinations that it made in the past, any more than it can ignore inconvenient facts when it writes on a blank slate."³⁹⁸

In sum, the Forest Service's decision to initiate rulemaking aimed at exempting or rolling back Roadless Rule protections in Alaska creates a cascade of problems for the agency. The Forest Service cannot ignore the consequences of that effort on the logging and roadbuilding authorized by the Prince of Wales Logging Project. To do so, the agency acts unlawfully and arbitrarily under NEPA, NFMA, and other statutes governing timber sale projects.

³⁹⁴ 2016 Amended Forest Plan ROD at 25; *see also* Tongass National Forest Land and Resource Management Plan Amendment, Reviewing Officer Response to Objections at 71 (Nov. 28, 2016) (accepting the Forest Service's reliance on the Roadless Rule for the agency's conclusion regarding the ongoing validity of the wildlife conservation strategy).

³⁹⁵ See 2016 Amended Forest Plan FEIS at 3-291 to 3-296.

³⁹⁶ *Id.* at 3-255.

³⁹⁷ Organized Vill. of Kake v. U.S. Dep't of Agric., 795 F.3d 956, 969 (9th Cir. 2015).

³⁹⁸ *Id.* (*quoting FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 537 (2009). (Kennedy, J., concurring)).

FINANCIAL AND ECONOMIC CONSIDERATIONS

I. THE FOREST SERVICE ACTS IN AN ARBITRARY MANNER WITH REGARD TO MARKET DEMAND.

As explained previously,³⁹⁹ the Forest Service's flawed market demand analysis led the agency to adopt an improperly rigid timber objective of 46 MMBF per year in the 2016 Amended Forest Plan regardless of actual demand.⁴⁰⁰ These errors unlawfully restricted the range of alternatives considered in the 2016 Amended Forest Plan FEIS, misrepresented the economic benefits from logging under the plan, and will lead to wasteful expenditure of resources on timber sales. The Prince of Wales Logging Project epitomizes those concerns in their entirety.

The FEIS not only fails to correct these errors, it fails to justify the Prince of Wales Logging Project altogether. Prior to this project, the Forest Service consistently explained why it selected a particular logging project and how the agency decided how much volume should be offered.⁴⁰¹ In doing so, the agency provided the public and the decision-maker essential information, including how a particular project fits into the broader Tongass Timber Program and the agency's analysis of future timber market demand.⁴⁰² The FEIS fails to provide any of this information and, as a result, the Forest Service acts arbitrarily in failing to provide its rationale for the Project.

Here the Forest Service is authorizing logging for the next 15 years. The Forest Service seeks to justify the Prince of Wales Logging Project in large part based on the stated need to provide a sustainable level of timber. "The underlying need for the [Prince of Wales Logging] Project comes in part from the Forest Service's obligation, subject to applicable law, to seek to provide a supply of timber from the Tongass National Forest that meets market demand annually and for the planning cycle."⁴⁰³ The FEIS also explains the Project responds to the timber goals and objectives of the 2016 Amended Forest Plan, which include "provid[ing] about three years supply of volume under contract to local mills and then establish[ing] NEPA-cleared volume to maintain flexibility and stability in the sale program."⁴⁰⁴

The Forest Service explained its approach to estimating annual market demand when it adopted the 2016 Amended Forest Plan as follows: "The Forest Service adopted the Morse methodology

⁴⁰¹ See, e.g., Big Thorne FEIS, Appendix A; Logjam FEIS, Appendix A; Wrangell FEIS, Appendix A; Saddle Lakes FEIS, Appendix A; North Kuiu FEIS, Appendix A.

⁴⁰² See, e.g., Big Thorne FEIS, Appendix A at A-1.

⁴⁰⁴ *Id*.

³⁹⁹ See DEIS Comment Letter at 7-9; see also Alaska Rainforest Defenders Comments on the Prince of Wales Island Landscape Level Analysis Project at 23-29 (Jun. 18, 2018); Alaska Rainforest Defenders Comments on the Prince of Wales Landscape Level Analysis Project – Draft Issue Statement and Alternatives (Dec. 5, 2017) at 16-22, 31-32-34.

⁴⁰⁰ See SEACC Forest Plan Objection at 22-24; ARD Forest Plan Objection at 80-85.

⁴⁰³ FEIS at 5.

as the means by which the agency complies *year-by-year with the annual demand portion of the [Tongass Timber Reform Act (TTRA)]* 'seek to meet' requirement."⁴⁰⁵ The agency intends to "to comply with the requirement to seek to meet demand 'for each planning cycle' through a series of *annual applications* of the Morse methodology."⁴⁰⁶ As the FEIS explains, the Forest Service continues to rely on the Morse methodology for estimating annual market demand.⁴⁰⁷

The FEIS, however, fails to explain the agency's conclusions regarding how much total oldgrowth should be authorized in this decision and how, when, what size, and why individual timber sales will contribute to meeting market demand either as a whole or on an annual basis. The FEIS concedes "[i]t is difficult to estimate market demand for timber from the Tongass National Forest, even a year or two in advance."⁴⁰⁸ Stated more directly, the Forest Service is deciding today how much logging it will authorize over the next 15 years based on information that the agency concedes is not a reliable estimate more than a year or two in advance.

As the Forest Service explained in the Big Thorne FEIS: "For planning and scheduling purposes, the Tongass uses a 5-year timber sale plan, which is consistent with Forest Service Manual 2430 . . . and provides a plan that can be adjusted in response to changing market conditions."⁴⁰⁹ Elsewhere in that document the agency explained:

Making judgments about when to start preparing timber sale projects based on estimates of demand in the future is very difficult. It is no easier to estimate demand for timber than it is to predict the stock market for a given year.⁴¹⁰

Here the Forest Service bases its decision to approve the Prince of Wales Logging Project on annual demand information of 58 MMBF⁴¹¹ for Fiscal Year 2018 (despite the fact it is now the end of the first quarter of Fiscal Year 2019), which ,of course, also fails to account for annual market demand in the years that will follow.⁴¹² The agency also fails to explain how the Project

⁴⁰⁸ FEIS at 108.

⁴⁰⁹ Big Thorne FEIS, Appendix A at A-9.

⁴¹¹ FEIS at 3-107.

⁴¹² See FEIS at 3-107 ("Grewe, 2018 displays the most recent annual demand calculation and the factors used in these calculations in the document Briefing Paper April 2018 FY18 Annual TNF Timber Demand-Grewe-Final which is located in the project record."); 833_0904 at 2 (U.S. Forest Service, Estimating the Range of Expected Tongass National Forest Timber Purchase and Sale Offer at 2 (Model Item Q, Scenario 1 Young Growth Transition).

⁴⁰⁵ 2016 Amended Forest Plan ROD at 27 (emphasis added).

⁴⁰⁶ *Id*.

⁴⁰⁷ FEIS, Appendix D at D-48.

⁴¹⁰ Big Thorne FEIS, Appendix B at B-33.

fits into the larger old-growth timber program on the Tongass.⁴¹³ Ultimately, the Forest Service fails to explain how authorizing a record-breaking amount of old-growth logging over the next 15 year encourages the timber industry to accomplish the 2016 Amended Forest Plan's aspiration of transitioning out of old-growth logging. The most likely outcome is obvious—Viking Lumber will simply log all of the old-growth authorized by the Project and then close its doors, leaving the residents of Prince of Wales Island to suffer the adverse consequences for decades to come. For these reasons, the agency violates TTRA, NFMA, and NEPA by not showing how this project is consistent with a current annual market demand analysis.

The Ninth Circuit has specifically addressed the Forest Service's obligation to provide complete and accurate market demand information to conduct a proper analysis of proposed timber sales in the Tongass: "Presenting accurate market demand information [is] necessary to ensure a well-informed and reasoned decision, both of which are procedural requirements under NEPA.⁴¹⁴ Indeed, "inaccurate economic information may defeat the purpose of an EIS by impairing the agency's consideration of the adverse environmental effects and by skewing the public's evaluation of the proposed agency action."⁴¹⁵

The Forest Service cannot sign a ROD for the Prince of Wales Logging Project without a more realistic and justified approach to market demand. If the agency approves the Project without conducting this analysis, it will act unlawfully under NEPA, misapply the market demand provision of the TTRA, and skew the multiple-use balancing choices under NFMA and the Multiple-Use Sustained-Yield Act.⁴¹⁶

II. THE FOREST SERVICE FAILS TO PROVIDE A CLEAR ASSESSMENT OF THE COSTS AND BENEFITS OF THE PRINCE OF WALES LOGGING PROJECT.

The Forest Service is required to conduct and disclose a Financial Efficiency Analysis comparing the agency's direct expenditures with estimated financial revenues for the Prince of Wales Project pursuant to NEPA, NFMA, and the agency's own guidance.⁴¹⁷ The Forest Service's NFMA obligations require the agency to consider these costs and benefits in deciding whether and how to proceed with this project given its adverse impacts to old-growth ecosystems, wildlife, fisheries, subsistence, and forest-dependent industries, such as fishing, tourism, and recreation. Accordingly, the Forest Service Handbook directs the Forest Service to

⁴¹³ The FEIS purports to provide a link to the Five Year Timber Sale Plan, but the link fails to provide any information. *See* FEIS at 107 ("The Tongass National Forest posts the five-year plan on the public website at: https://www.fs.usda.gov/tongass/.") (last visited Dec. 13, 2018).

⁴¹⁴ Natural Res. Def. Council, 421 F.3d at 812 (citation omitted).

⁴¹⁵ *Id*. at 811.

⁴¹⁶ See 16 U.S.C. § 1604(e) (NFMA); *id.* § 529 (Multiple-Use Sustained-Yield Act); *id.* § 539d(a) (TTRA); *id.* § 3120(a)(3)(A) (Alaska National Interest Lands Conservation Act); *see also Natural Res. Def. Council* 421 F.3d at 808-09 (explaining balancing of timber and other goals in the Tongass).

⁴¹⁷ See DEIS Comment Letter at 49-51.

"[i]nclude *all costs* that are anticipated as a result of the project," such as but not limited to "direct costs associated with . . . [h]arvest administration . . . [s]ale preparation . . . [and] [r]oad design and engineering."⁴¹⁸ NEPA compels the disclosure of all this information to ensure the agency engages in informed decision-making and the public can evaluate the proposed action.⁴¹⁹

Here, in an unexplained departure from the Forest Service Handbook and decades of consistent agency practice,⁴²⁰ the Forest Service fails to conduct or disclose the financial efficiency analysis in this case. Instead, the agency summarizes types of costs and discusses factors that could affect economic viability as the agency proposes timber sales over the 15-year implementation phase.⁴²¹ In the FEIS's Response to Comments, for example, the agency acknowledges how the entire approach to the Project makes it difficult to determine costs and disclose the tradeoffs in a meaningful way:

The Forest Service administrative costs for timber harvest projects were not included in the DEIS because of the closeness of the range of timber volume among alternatives from 604 million board feet (MMBF) for Alternative 5 to 656 MMBF for Alternative 2 would not result in a useful measure to compare alternatives. Also, with all other costs and values, these will indubitably change over the 15-year time period. Nor would they reflect all of the Forest Service administrative costs for other resource projects. The administrative costs have been computed and added to the Project Record to respond to a public comment on the DEIS. Because there is so much fluctuation in the value of timber species, the values were also considered too speculative to display.⁴²²

⁴²⁰ See Big Thorne FEIS at 3-36 to 3-37 (financial efficiency analysis); Logjam Timber Sale FEIS at 3-84 to 3-85 (financial efficiency analysis); Wrangell Island Project FEIS at 67 to 68 (financial efficiency analysis); Saddle Lakes Timber Sale FEIS at 71 to 72 (financial efficiency analysis); Kuiu Timber Sale FEIS at 65 to 66 (financial efficiency analysis).

⁴²¹ FEIS at 113-16.

⁴²² *Id.*, Appendix D at D-13.

⁴¹⁸ U.S. Forest Service, Forest Service Handbook, FSH 2409.18 – Timber Sale Preparation Handbook, Ch. 30 at 2409.18_32.22 (Jan. 31, 2002) (emphasis added).

⁴¹⁹ *Nat. Res. Def. Council*, 421 F.3d at 811 ("Inaccurate economic information may defeat the purpose of an EIS by 'impairing the agency's consideration of the adverse environmental effects' and by 'skewing the public's evaluation' of the proposed agency action." (quoting *Hughes River Watershed Conservancy*, 81 F.3d at 446)); *see also id.* at 811-12 ("An EIS that relies upon misleading economic information may violate NEPA if the errors subvert NEPA's purpose of providing decisionmakers and the public an accurate assessment upon which to evaluate the proposed project." (quoting *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 235 F.Supp.2d 1143, 1157 (W.D. Wash. 2002))).

Failing to provide accurate information on costs and benefits skews the analysis, and brings into question whether the jobs created by the Project are worth both the high cost to taxpayers and the extreme ecosystem risks the Project poses. The Forest Service acts arbitrarily under NFMA and unlawfully under NEPA by failing to provide a complete economic analysis and an accurate picture of the enormous negative cost-benefit analysis of the Prince of Wales Logging Project to the public and the decision-maker.

III. THE FOREST SERVICE FAILS TO ACCOUNT FOR ITS OWN MISMANAGEMENT OF LOGGING ON PRINCE OF WALES ISLAND, INCLUDING HIGHGRADING OF THE MOST VALUABLE HABITAT.

As explained previously,⁴²³ the Forest Service's own documented mismanagement of the Tongass logging program (including problems related to highgrading available volume, appraisal processes, volume calculations, sale administration activities, theft prevention, and monitoring etc.) has direct bearing on the agency's obligations under NFMA and the other statutes governing timber sales to balance the competing interests.⁴²⁴ The public is losing important habitat and the biggest, most valuable trees on the Tongass, but not obtaining the full value of the timber sales, making the agency's assessment and disclosure of impacts, costs and benefits, and the balancing of competing interests arbitrary and misleading.

With regard to NFMA, the 2016 Amended Forest Plan and the Prince of Wales Project run contrary to the Forest Service's obligation to manage the Tongass logging program in an economically sustainable fashion. The agency developed portions of the 2016 Amended Forest Plan under the 2012 Planning Rule,⁴²⁵ and as such "must include plan components . . . to guide the plan area's contribution to social and economic sustainability."⁴²⁶ The term "sustainability" means the "capability to meet the needs of the present generation without compromising the ability of future generations to meet their needs."⁴²⁷ Yet the Forest Service does not explain how the Prince of Wales Project fulfills these NFMA obligations. The FEIS ignores this review and fails to account for the Forest Service's ongoing misadministration of timber sales. The FEIS fails to explain what improvements, if any, it actually adopted to prevent continued mismanagement and fulfill the agency's NFMA obligation to ensure sustainable timber harvest.

⁴²⁵ See generally 2016 Amended Forest Plan, Chapter 5; 36 C.F.R. 219.8.

⁴²⁶ 36 C.F.R. 219.8(b).

⁴²³ See DEIS Comment Letter at 51-55.

⁴²⁴ See Public Employees for Environmental Responsibility (PEER), Forest Service Scalped on Tongass Timber Sales: Bad Sales Cost Taxpayers & Alaska Schools Big Money and Hurt the Forest (Apr. 3, 2017); see also U.S. Forest Service, Tonka Timber Sale DXPRE Post Harvest Monitoring Results; U.S. Forest Service, Washington Office Activity Review of Timber Sale Administration, Sale Preparation, Stewardship Contracting, NEPA and Timber Theft Prevention Region 10 (June 2016).

⁴²⁷ *Id.* at § 219.19; *see id.* (defining "economic sustainability" as "the capability of society to produce and consume or otherwise benefit from goods and services including contributions to jobs and market and nonmarket benefits").

The Forest Service is acting arbitrarily by authorizing this massive program without first addressing documented management problems. The agency must disclose how it will address these issues before it reaches any final decision regarding the Prince of Wales Logging Project or it will act unlawfully under NEPA, NFMA, and the other statutes governing timber sales.

IV. THE FOREST SERVICE FAILS TO DISCLOSE THE COSTS, IMPACTS, AND ALTERNATIVES TO PUBLICLY SUBSIDIZING ROADS AND ACCESS MANAGEMENT.

Given the uncertainty of the "condition-based" analysis, the Forest Service's assessment, disclosure, and consideration of road costs and impacts (including construction, maintenance, and decommissioning) is incomplete and misleading.⁴²⁸ This renders the FEIS unlawful under NEPA and renders any decision arbitrary under NFMA and the other statues governing timber sales.

In addition to failing to explain how much individual roads will cost, the Forest Service fails to explain whether it will use public funds to pay for road costs associated with the Prince of Wales Logging Project. Both of those considerations have direct bearing on the agency's analysis of the costs and benefits, as well as the resulting impacts and alternatives. By way of illustration, in advance of the Kuiu Timber Sale, advertised in 2018 at 13.5 MMBF,⁴²⁹ the Forest Service spent \$3.1 million to construct and recondition over 80 miles of roads on Kuiu Island.⁴³⁰ This amount more than quadrupled the road costs the agency projected for the Kuiu sale in its EIS.⁴³¹ By preroading the sale, the agency shifted these road costs from the purchaser to the public. Moreover, the fact the Kuiu sale had a minimum bid of less than \$200,000 demonstrates the arbitrary nature of the Forest Service's balancing of competing interests.⁴³²

The Forest Service is poised to undertake a similar approach here. The agency appears to be planning to perform road construction and reconstruction required for the Project at public expense, reducing the costs to the logger but shifting them to the taxpayer: "In some years,

⁴³⁰ See Kuiu Rd & Bridge Replacement, AG-0120-S-14-0011, Amendment 003, Replacement Pages Section B, Kuiu Contract_Redacted at PDF 11-25 (2014) (identifying roadwork covered by the base bid and options 1-7); Amendment of Solicitation/Modification of Contract (Apr. 23, 2014), Kuiu_sf30_Mod_6_Redacted (Modification 6) (adding roadwork to one road and providing the final contract total of \$3,083,813.00).

⁴³¹ Compare U.S. Forest Service, Kuiu Timber Sale Area, Final Environmental Impact Statement at 2-15 (Tbl. 2-2, Alt 5), 3-60 (Tbls. 3-19 & 3-20, Alt 5) (July 2007) (projecting road costs of \$54.09/MBF) with Amendment of Solicitation/Modification of Contract (Apr. 23, 2014), Kuiu_sf30_Mod_6_Redacted (Modification 6) (providing \$3,083,813.00 road cost, which, divided by the current proposed timber sale volume of 13,643 MBF, yields a cost of \$226.04/MBF).

⁴³² Kuiu Bid Letter.

⁴²⁸ See DEIS Comment Letter at 55-56.

⁴²⁹ U.S Forest Service, Bid Letter for North Kuiu #2 Sale (May 5, 2018) (Kuiu Bid Letter).

public works funds are available to pay for all, or a portion of, [National Forest System] road construction or reconditioning costs for roads that would be used for a timber sale as well as the long-term administration of the national forest."⁴³³ The agency attempts to deflect this issue in its response to comments by stating there are currently no congressional appropriations slated for the Project, but immediately acknowledges that Congress has and could provide for such.⁴³⁴

Thus, the FEIS admits that the Forest Service might force the public to pay for some or all of the road costs for the Prince of Wales Logging Project over the next 15 years, but then fails to examine those costs and the resulting impacts of that decision (*i.e.*, making it more likely that a timber sale will be offered in any given location) and justify the decision to move ahead. By failing to explain these potential costs, the Forest Service violates NEPA in its FEIS and reaches an arbitrary conclusion under NFMA in its Draft ROD.

V. THE FOREST SERVICE FAILS TO ADDRESS THE IMPLICATIONS OF, AND ALTERNATIVES TO, ITS DECISIONS TO ADOPT AND IMPLEMENT THE EXPORT POLICIES.

The Forest Service's decisions to adopt various versions of the Export Policy has had direct environmental effects because the agency admits it increases the volume of logging on the Tongass, thereby increasing adverse environmental impacts, while decreasing the number of jobs created per unit of timber cut. By failing to subject those policy decisions to environmental review, the Forest Service is acting contrary NEPA, NFMA, and the other timber sale statutes governing timber sale decisions.⁴³⁵

As explained in the objections to the 2016 Amended Forest Plan,⁴³⁶ the Forest Service violated NEPA because the 2016 Amended Forest Plan FEIS fails to disclose and analyze the significant environmental and economic impacts of the agency's decisions to adopt export policies. The agency's decisions to adopt various export policies also raises infirmities under NFMA and the other statutes under which the Forest Service operates, as the decisions directly influence the agency's ability to balance multiple competing interests when managing the national forests, including the agency's decision to select an alternative that maximizes the amount of large-scale old-growth logging approved.⁴³⁷ For all of these reasons, the Forest Service is implementing the Prince of Wales Logging Project pursuant to an unlawful forest plan rendering the Project unlawful for the same reasons.

⁴³³ FEIS at 114.

⁴³⁴ *Id.*, Appendix D at D-80 to D-81.

⁴³⁵ See DEIS Comment Letter at 56-58.

⁴³⁶ See SEACC Forest Plan Objection at 25-35; ARD Forest Plan Objection at 85-90.

⁴³⁷ See 16 U.S.C. § 1604(e) (NFMA); *id.* § 529 (Multiple-Use Sustained-Yield Act); *id.* § 539d(a) (TTRA); *id.* § 3120(a)(3)(A) (Alaska National Interest Lands Conservation Act); *see also Natural Res. Def. Council*, 421 F.3d at 808-09 (explaining balancing of timber and other goals in the Tongass).

The FEIS also fails to examine implications of and alternatives to the current Region 10 Export Policy being applied to the Prince of Wales Logging Project. The agency fails to consider alternatives in which the Export Policy is not adopted and/or applied.⁴³⁸ Variations on the Export Policy are not even included among the "Alternatives Considered But Eliminated From Detailed Review."⁴³⁹ The agency acts unlawfully because the FEIS fails to explain why the agency did not consider alternatives based on domestic processing with smaller volumes variations and the resulting differential environmental impacts.

Additionally, the Forest Service acts arbitrarily under NFMA and the other statutes under which the Forest Service operates when it approves a timber sale given the inherent tradeoffs and balancing the agency must make in deciding how to pursue competing objectives. The agency never even considers smaller volume logging alternatives processed in region. In so doing, the agency acts in an arbitrary manner.

* * *

The Prince of Wales Logging Project is a sad chapter in the Tongass logging program. It accomplishes nothing more than mire Southeast Alaska in the destructive and controversial practices of industrial-scale old-growth logging for the next 15 years. Logging Tongass old-growth is economically and environmentally unsustainable and, as a result, the Forest Service should not move ahead. To do otherwise, based on the FEIS and Draft ROD, the Forest Service will act in an arbitrary and unlawful manner.

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⁴³⁸ FEIS at 21-34.

⁴³⁹ *Id.* at 34-36.

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