

# Appendix D

## Response to Comments on the Draft Environmental Impact Statement

### Introduction

Appendix D is the Forest Service's response to comments received for the Prince of Wales Landscape Level Analysis (POW LLA) Project Draft Environmental Impact Statement (DEIS) provided to the public on May 4, 2018.

### Regulatory Guidance on Use of Public Comment

Response to comments should be the underlying purpose behind the structure of any comment analysis process. Regulations provide clear guidance on both the intent of soliciting public comments and how comments should be used. Council on Environmental Quality (CEQ) regulations require agencies to "assess and consider comments both individually and collectively" (40 CFR 1503.4).

### Analysis and Incorporation of Public Comment

Agencies, organizations, and individuals submitted written comments on the Prince of Wales Project DEIS; the Interdisciplinary Team (IDT) thoroughly read and objectively analyzed all the comment letters received. These comments were then used to strengthen and clarify the Final Environmental Impact Statement (FEIS). The Forest Service would like to thank those who took the time to comment on the DEIS.

The Forest Service received more than 50,000 letters during the public comment period. Most of these originated as form letters generated by special interest organization websites for their respective members to sign (some included additional remarks) and then submit using a provided link. Letters from individuals and organizations were considered, both individually and collectively, as many of the letters had the same or similar concerns. In order to avoid repetition, we have categorized concerns by topic and offered a consolidated response to substantive concerns (FSH 1909.15, 25.1). Comments are considered substantive when they are within the scope of the proposal, are specific and related to the proposal, and include supporting rationale for the Responsible Official to consider. Comments are summarized by topic into Concern Statements, to which the Forest Service responds. Comments fell into two broad categories:

1) Those within the scope of the project:

Comments within the scope of this project have been addressed and incorporated into the FEIS to the extent practicable. Some comments ask for clarification of information in the FEIS, requested certain information be considered, requested modification to an alternative, or suggested a new alternative altogether. Many comments are addressed through existing Forest Plan direction and are not incorporated into the FEIS. Other comments requested more information in the Environmental Impact Statement (EIS). Much of this information is captured in other sources and is in the Project Record. An EIS is supposed to be a summary of the information and analysis (40 CFR 1502.2(a)).

2) Those outside the scope of the project:

Those comments outside the scope of this project have not been incorporated into the FEIS. Some

## Appendix D

comments disagreed with the Forest Plan and other regulations decided at a different level, which makes them beyond the scope of this document. Some people also made comments, for example, requesting that drilling stop in the Arctic National Wildlife Refuge and asking people to stop polluting the oceans with plastic. These requests are captured in the Project Record with no response here. Comments that involve issues beyond the analysis area or speculation that does not involve reasonably foreseeable future projects are also beyond the scope of this document.

The Forest Service also received some comments that did not contain a concern statement. All comment letters are located in the Project Record. In addition, letters from federal, state, and local agencies, as well as elected officials, are published at the end of this appendix, per FSH 1909.15 Chapter 25.1, and noted in Table D-1, below. Table D-2 lists the comment categories and subcategories, as well as the pages where the responses can be found.

**Table D-1. Federal, state, and local agencies and elected officials submitting comments on the Prince of Wales Project Draft Environmental Impact Statement.**

Name	Agency	City	State
Jill Nogi	US EPA Region 10 Office of Environmental Review	Seattle	WA
Mark Minnillo	State of Alaska Dept. of Fish and Game	Craig	AK
Philip Johnson	USDI, Regional Environmental Office	Anchorage	AK
Don Hernandez	Point Baker Community Association	Pt. Baker	AK

**Table D-2. Comment categories and subcategories with linked pages (hold Control and click)**

Comment Topic	Page linked
Do not harvest timber in the Prince of Wales Project Area	5
2001 Roadless Area Conservation Rule	5
Tongass 77 Watersheds and The Nature Conservancy/Audubon conservation priority areas	6
Geographic specificity (context and intensity)	6
How were changes in landownership addressed?	8
Forest Service established and used an unauthorized FACA committee	8
Multiple Use and Sustained Yield Act of 1960	8
Old-growth logging is unsustainable	9
Gate process not followed	10
Describe monitoring process in the Implementation Plan	11
CEQ NEPA regulations – scope	11
DEIS violates NFMA	12
Cost-benefit analysis	13
Comment period extension	13
Incomplete and unavailable information	13
Hard look	14
Prince of Wales Landscape Level Analysis approach	15
Revised DEIS or SEIS needed before FEIS	16
Purpose and Need	16
Alternative 1 – No Action	17
Alternative 2 – Proposed Action	18
Alternative 3	18
Alternative 4	18

## Appendix D

Alternative 5	19
Suggested alternatives were not analyzed	19
Beach Fringe and other protected areas	20
Wilderness activities: activities considered	21
Wilderness activities: snowmachine use	22
Wilderness activities: management direction	22
Cumulative effects analysis is insufficient	23
Watershed: timber harvest in restoration watersheds	23
Watershed: watershed thresholds for roads and timber harvest	24
Watershed: temporary roads	24
Climate: general concern for Forest Service priorities related to climate change	25
Climate: further analysis for climate change	25
Soil erosion, landslides, and slope instability	25
Soil compaction	26
Soil productivity	26
Soil and wetland effects	27
Aquatic organism passage/red crossings	27
Subsistence fisheries monitoring	28
Fish habitat improvement projects	28
Economic effect of logging on fisheries	28
Impact of timber harvest on fish habitat	29
Prioritization of timber harvest over restoration	29
Warm water fish kill	30
Effect of roads to fish habitat	30
Silviculture	30
Silviculture: clearcutting	31
Silviculture: uneven-aged management	31
Silviculture: two-aged management	32
Silviculture: prescriptions for windfirmness	33
Silviculture: young-growth management	33
Silviculture: Alaska yellow-cedar management	34
Silviculture: natural regeneration v. planting	35
Silviculture: regeneration on karst	35
Silviculture: precommercial thinning	36
Silviculture: pruning	36
Timber management: timber inventory	36
Timber management: timber volume from other landowners	37
Timber management: export jobs	38
Timber management: falldown	39
Timber management: logging costs	40
Timber management: old-growth management	41
Timber management: transition to young-growth management	43
Timber management: old-growth small sale strategy	44
Timber management: size of small sales	44

## Appendix D

Timber management: stewardship contracts	45
Timber management: young-growth contracts	45
Timber management: log export	46
Timber management: export of western redcedar	46
Timber management: no old-growth logging north of the 20 Road	47
Timber management: no old-growth logging	47
Market demand	48
Economics: export markets	48
Economics: subsidy of timber industry	49
Wildlife: NFMA/NEPA	49
Wildlife: Queen Charlotte Goshawk	50
Wildlife: Alexander Archipelago Wolf	51
Wildlife: Sitka Black-tailed deer	53
Wildlife: black bears	56
Wildlife: endemics	57
Wildlife: Prince of Wales ermine	60
Wildlife: Prince of Wales flying squirrel	61
Wildlife: onservation strategy	62
Wildlife: HPOG and SD67	63
Wildlife: connectivity	64
Wildlife: young-growth treatments to enhance wildlife habitat	65
Wildlife: general wildlife	67
Wildlife: biogeographic province v. wildlife analysis areas analysis	69
Wildlife: prescribed Fire	69
Wildlife: migratory birds	70
Wildlife: legacy	70
Wildlife: Appendix B Implementation Plan	72
Wildlife: subsistence	73
Wildlife: habitat thresholds	75
Wildlife: implementation of different harvest prescriptions and standards and guidelines	76
Wildlife: Forest Plan	77
Rock for public use	78
Road maintenance	78
Designate e-bikes as non-motorized	78
Road 2080	79
Log transfer facilities	79
Access and travel management for public uses	80
Transportation: building roads with appropriated funds	80
Recreation: guide businesses	81
Recreation: Harris River Campground	81
Recreation: prioritizing activities	81
Recreation: terminology	82
Employment	82
Socioeconomics: contributions of non-timber business	83

Cultural resources: irreversible and irretrievable effects	84
When is Tribal or Corporation consultation warranted?	84
Sealaska request for dialogue and collaboration	84
Invasive plants: best management practices	85
Invasive plants: treatments	85
Syracuse Environmental Research Associates, Inc. Risk Assessment	85
Herbicides: full disclosure in alternatives where herbicides are not mentioned explicitly	87
Herbicides: no herbicide use	88
Herbicides: karst ecosystems	88
Herbicides: human health	89
Herbicides: cost of potential impacts to human health and environment	90
Letters from Federal, State, and Local Agencies and Elected Officials	91

## Concern Statements by Topic and Forest Service Responses

### Do not harvest timber in the Prince of Wales Project Area

#### Concern Statement:

Commenters request that the Forest Service not harvest timber in the Prince of Wales Project Area.

#### Forest Service Response:

The POW LLA Project tiers to the Forest Plan, which established land use designations where different levels and types of activities are encouraged. 15 different land use designations occur within the Prince of Wales Project Area (see DEIS pp. 9 through 11), and each land use designation (LUD) has specific goals and objectives, ranging from wilderness areas with limited activity to Timber Production where timber harvest is expected. The POW LLA Project is designed to meet the following multiple resource objectives: improve forest ecosystem health, support community resiliency, and provide economic development on the Thorne Bay and Craig Ranger Districts. The objectives will be met by implementing projects in the following four broad management categories: Vegetation Management, Watershed Improvement and Restoration, Sustainable Recreation Management, and Associated Actions. Timber harvest is one of the components to meet the resource objectives.

### 2001 Roadless Area Conservation Rule

#### Concern Statement:

The concern is keeping the 2001 Roadless Area Conservation Rule on the Tongass National Forest.

#### Forest Service Response:

Any modification to Roadless Area Conservation Rule is outside the scope of this project.

## Appendix D

### **Tongass 77 Watersheds and The Nature Conservancy/Audubon conservation priority areas**

#### **Concern Statement:**

People commented on the Tongass 77 (T77) Watersheds as described in the 2016 Tongass Land and Resource Management Plan (Forest Plan) Record of Decision (ROD) (p. 7). One commenter wanted a more intensive study of the Sweetwater Lake T77 watershed, and possibly the establishment of new standards and guidelines for young-growth harvest within T77 watersheds. Another commenter requested that the decision to include the T77 areas and The Nature Conservancy/Audubon conservation priority areas in the Forest Plan ROD be rescinded.

#### **Forest Service Response:**

The POW LLA Project follows the direction outlined in the 2016 Forest Plan ROD (p. 7). This direction dictates that old-growth timber harvest will not be allowed; however, young-growth timber harvest may be allowed in some of the T77 Watersheds and The Nature Conservancy/Audubon conservation priority areas in accordance with other standards and guidelines. Although they are not mapped for the POW LLA Project FEIS, they were considered as unsuitable for timber production as described in the Forest Plan, Appendix A. The POW LLA Project FEIS Commercial Vegetation Management map excludes these areas from “old-growth acreage” suitable for old-growth harvest in accordance with the process used to determine the suitable timber for the Analysis in the 2016 Forest Plan Amendment FEIS, Appendix B, p. B-1.

The Responsible Official made the decision to not consider any amendments to the 2016 Forest Plan. “The POW LLA Project is a project-level analysis; its scope is confined to addressing the significant issues and environmental effects specifically related to this project. It does not attempt to address decisions made at higher levels. However, it does implement direction provided at those higher levels, and is designed to achieve the management direction of the Forest Plan as outlined in the Purpose and Need statement” (DEIS, page 8). An additional study of T77 watersheds and a consideration of new standards and guidelines is outside of the scope of this project.

### **Geographic specificity (context and intensity)**

#### **Concern Statement:**

The concern is that there may be a lack of geographic specificity of the activities in the Proposed Action and the alternatives, making it difficult to assess where and when effects will take place. The commenters do not feel that the context and intensity is analyzed in the DEIS. Some commenters found the maps containing the site-specific details difficult to read. Others felt that there are infinite possible combinations in this Project Area – which some find confusing – and the analysis does not consider the context and intensity of the effects to local jobs and communities, fish, wildlife, and subsistence.

Commenters have heard that the POW LLA Project process of public input is a way to shortcut or streamline National Environmental Policy Act (NEPA) analysis (“Do it all at once, and then decide”). They do not believe it is reasonable to shortcut the NEPA analysis by neglecting to specify the location of any major activity. Commenters could not understand how a manager can take the required hard look to professional standards for context and intensity when the area to be impacted has not been identified in specificity.

One commenter felt that the DEIS did not meet Forest Plan TIM3.IC related to site specificity.

### Forest Service Response:

The approach described in the DEIS allows for an adaptive process to design treatments during implementation based on defined design features or conditions described within the alternatives, Activity Cards (Appendix A), and site-specific-conditions on the ground during implementation. This approach provides flexibility for achieving desired conditions at a landscape scale while also taking the required hard look. The action alternatives describe what conditions are being targeted for activities, what conditions cannot be exceeded in an area, and places limits on the intensity of specific activities (such as timber harvest) (DEIS, p. 20).

The approach described demonstrates the required hard look, and it allows the Responsible Official flexibility during implementation in order to integrate project activities at a landscape scale. This will allow the Project Area to move toward desired conditions as described in the Forest Plan.

The effects analysis for each resource is contingent upon adhering to these requirements, as well as the Activity Cards (Appendix A) and Implementation Plan (Appendix B). The Implementation Plan provides a process to ensure the appropriate site-specific resource information and public involvement needed to design activities is within the scope of the decision for this project. The Activity Cards and Implementation Plan are an integral part of this landscape-level project for accountability, tracking, decision-making, and documentation purposes. The Responsible Official will have the responsibility to ensure that activities are implemented within the bounds of the analysis and the decision made (DEIS, page 1).

Step 1 and Step 4 (Appendix B) in the Implementation Process specifically describes additional opportunities for public input and involvement, such as annual public workshops for input on types and locations of activities, as well as a review of proposed activities. The refined activities from the workshops will be placed on the Project Out-Year Plan as “draft,” and this will be made available to the public. The Project Out-Year Plan will include the appropriate activity location maps, activity design components, project design, unit and road cards, and other activity information as outlined in Appendix B. The comment period will be open for 30 days (DEIS Appendix B, p. 7, 33-34), which will offer an additional opportunity for input and feedback on the proposed activities. This opportunity for public comment on the maps, and unit and road cards meets the intent of Forest Plan TIM3.I.C, which states:

“Consider the management prescription of the LUDs within the project area in project design and environmental analysis for timber activities. 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.”

Activities are made final after the input from the comment period has been considered and any necessary changes have been incorporated. The delegated Line Officer retains the authority to make final decisions related to the location, extent, and types of activities planned and completed, as consistent with the ROD (as outlined in the Forest Service handbook and Forest Service Manual).

The DEIS allowed an opportunity for public comments to be submitted. The DEIS contains maps that depict the specific areas (context) where potential commercial timber harvest, recreation projects, watershed improvements, and other activities may occur. The Commercial Vegetation Management map and Precommercial Vegetation Management maps show the specific stands and roads analyzed in the DEIS. No alternative will harvest all the stands identified (DEIS, p. 20). These maps are also published with the FEIS. Activity Cards and the Implementation Plan will be published with the Draft

## Appendix D

ROD as Appendix 1 and Appendix 2. When specific harvest units are identified during activity development more detailed maps and information, including unit and road cards, will be provided to the public for review prior to implementation. All comments will be considered by the Responsible Official and may be used to adjust activities (DEIS, page B-6).

### **How were changes in land ownership addressed?**

#### Concern Statement:

Questioned if and how the changes of landownership were used in the analysis.

#### Forest Service Response:

The DEIS states in Chapter 2, page 20, that, since the DEIS, there have been no changes to land ownership that would affect the project. The effects of pending or potential land exchanges were analyzed in the cumulative effects sections in the DEIS.

### **Forest Service established and used an unauthorized Federal Advisory Committee Act committee**

#### Concern Statement:

The concern is that the Forest Service established and used an unauthorized Federal Advisory Committee Act (FACA) committee to develop the Proposed Action (in violation of the FACA). The unauthorized advisory committee process runs directly counter to a number of public process goals embodied in the National Forest Management Act (NFMA), the NEPA, and the FACA.

#### Forest Service Response:

The DEIS acknowledges that the Prince of Wales Landscape Assessment Team (POW LAT, a local, independent, broadly-based collaborative group) formed in May 2016. The membership to the group was not solicited or appointed by the Forest Service and was outside of the more extensive Forest Service public participation effort. While forming POW LAT was encouraged and supported by the Forest Service, POW LAT was not a FACA because it was not established by the Forest Service and no Forest Service funds were used for POW LAT members' travel or other expenses. The Prince of Wales Community Advisory Council started the discussion on how to form the group and it progressed from there. The March 2016 POW LAT notes – which can be found in the Project Record and at (<https://www.powcac.org/other-projects/>) – explain how the group was formed.

The Forest Service team accepted the Prince of Wales Community Advisory Council Landscape Analysis Team's list of suggested projects. These projects were considered, along with the input on developing and refining the Proposed Action and alternatives that was received internally and from the broader public (DEIS, p. 11).

### **Multiple Use and Sustained Yield Act of 1960**

#### Concern Statement:

The concern is that logging in Southeast Alaska is proposed to profit from the 'lucrative Asian markets' and given precedence over other activities in violation of the authority given through the Multiple Use and Sustained Yield Act of 1960 (MUSYA).

### Forest Service Response:

The POW LLA Project DEIS Purpose and Need specifies the reasons for this project at this time. The POW LLA Project seeks to meet multiple resource objectives through an integrated approach. While remaining consistent with the multiple-use goals and objectives of the 2016 Tongass Land and Resource Management Plan (Forest Plan), the POW LLA Project aims to fulfill the following: improve forest ecosystem health on the Thorne Bay and Craig Ranger Districts, help support community resiliency, and provide economic development. The ROD for the 2016 Forest Plan, as well as the outcome of objections to the plan, found that the decision in the Forest Plan did support the MUSYA. Because this project fits within the Forest Plan, it meets the MUSYA. It is the purpose of this project to implement Forest Plan direction and work toward achieving its goals and objectives. The Forest Plan includes goals to provide a diversity of opportunities for resource uses that contribute to the local and regional economies; maintain and restore the natural range and frequency of aquatic habitat conditions; support the full range of native and desired nonnative species; and provide a range of recreation and tourism. The POW LLA Project strives to meet these goals and objectives through proposed projects and the analysis in the DEIS. Although the focus of this concern is on logging, the Draft Environmental Impact Statement's focus is on sustaining multiple uses.

Under the MUSYA, national forest lands are to be managed in trust for the American public for “outdoor recreation, range, timber, watershed, and wildlife and fish purposes.” The historical record of the Tongass clearly documents that compared to other resources, timber production has dominated management directions and budgets (per congressional direction), and that remains the case today. The NFMA (and its planning regulations of 2012) requires that forest plans must provide for “ecological sustainability” and “ecosystem integrity...” 36 C.F.R. 219.8(a). In addition, forest plans “must provide for the diversity of plant and animal communities...” 36 CFR 219.9.

### **Old-growth logging is unsustainable**

#### Concern Statement:

The concern is that additional logging of Prince of Wales Island old-growth forest is economically and environmentally unsustainable. It would destroy irreplaceable habitat for plant species unique to the island, as well as bears, salmon, Sitka black-tailed deer, and Alexander Archipelago wolves.

#### Forest Service Response:

On page 5 of the DEIS, the Purpose and Need for the POW LLA Project and how it responds to Forest Plan multiple-use goals and objectives is described. These goals and objectives include local and regional economies, fish, biodiversity, recreation and tourism, subsistence, timber, and wildlife. Each of these goals and objectives is important; however, not all can occur on the same acre of land at the same time. The MUSYA dictates that national forests are to be managed under principles of multiple use and should produce a sustained yield of products and services while ensuring that no specific use dominates any other use. These products and services fall under the following categories: recreation, range, timber, watershed, wildlife, and fish purposes. It is recognized that some ecosystem services (such as carbon regulation and wildlife habitat) may be compromised when national forest resources are managed, in combination, to best meet the needs of the public.

Table 1 in the DEIS (p. 11) shows the number of acres by LUD in the Project Area. The Forest Plan goals should “provide a predominately natural or natural-appearing settings and provide opportunities for a moderate degree of independence, closeness to nature, and self-reliance.” The land use designations include a balance of non-development and development objectives (e.g., there are 237,113 acres of the Remote Recreation LUD). The wildlife habitat in the non-development land use

## Appendix D

designations will be retained through the life of the Forest Plan. The Project Area also includes 572,018 acres of Timber Production LUD, where the Forest Plan goals include: “maintain and promote wood production, manage for sustained long-term timber yields, and seek to meet the annual and long term market demand.” Some areas are managed for natural settings and some are managed for timber products, but the POW LLA Project balances the different LUD goals to meet the Purpose and Need for the project.

We acknowledge that harvested stands will take over a century to replace and that stands move through several stages, including stem exclusion, where habitat for wildlife species is reduced or non-existent (DEIS, page 73). The analysis in the DEIS shows the effects to resources in the event of timber harvest and includes measures to minimize adverse effects (Appendix A). In order “to seek to provide a supply of timber from the Tongass National Forest that meets market demand annually and for the planning cycle, and to restore and improve forest resources to a condition where they provide increased benefits to society” (Tongass Timber Reform Act, Section 101), timber harvest must occur. This project is required to meet the direction in the Tongass Timber Reform Act, which requires the harvesting of old-growth stands.

### **Gate process was not followed**

#### **Concern Statement:**

The Gate System outlined in FSH 2409.18 was not followed.

#### **Forest Service Response:**

The purpose of a Gate 1, Timber Project Plan, is to provide an “early overview of a proposed project in order to ensure the addition of timely, efficient, and environmentally sound timber sale proposals to the timber sale action plan. It documents the determination that further investment in the proposal is warranted.” (See FSM 2332.11.)

Using the inventory and reconnaissance completed for this project – plus the use of past information and the analysis done for the 2016 Forest Plan Amendment FEIS – a decision was made by the Responsible Official to proceed through the use of Notices of Intent (PR# 833\_0009 and PR # 833\_0081) and the project initiation letters (PR # 833\_0236 and PR # 833\_0279) to proceed with the project through the NEPA phase (Gate 2). Reconnaissance has been ongoing for the first activities to be approved under this project. Page 92 of the DEIS further discusses the inventory methods used to help inform the NEPA decision on this project.

The project initiation letters specifically state that the Responsible Official decided to proceed with this project. The Responsible Official goes on to say that the “POW LLA Project will be an integrated analysis combining timber sale, watershed and stream restoration/improvement, recreation, wildlife habitat, and transportation components into a single NEPA compliant document. I expect the ultimate decision will provide clearance for “bridge” old-growth timber projects as well as 10 to 15 years’ worth of young-growth timber, recreation, restoration, wildlife habitat, and road projects. I am asking the IDT to consider all potential young-growth and old-growth timber sale and stewardship opportunities in the Project Area, as well as to clearly understand the public interest in recreation, wildlife habitat, and roads.” This decision on this document will finalize Gate 2.

Since this analysis covers many projects (not just timber harvest projects), the Implementation Plan was created (see FEIS, Appendix B). During the implementation phase (Gate 3) of any potential timber offer arising from the decision on POW LLA Project FEIS, the Implementation Plan will be

followed to ensure that further financial efficiency will be considered before more expenses are incurred.

### **Describe monitoring process in the Implementation Plan**

#### **Concern Statement:**

One commenter wanted to know how the process will be monitored.

#### **Forest Service Response:**

The 2016 Tongass Monitoring Program will monitor activities as they are implemented and will give feedback to the Responsible Official. Based on the feedback, the Responsible Official can determine what future activities to implement.

### **Council on Environmental Quality National Environmental Policy Act regulations – scope**

#### **Concern Statement:**

Commenters felt that the DEIS violated the Council for Environmental Quality’s NEPA regulations that require agencies to analyze proposals or parts of proposals that are related to each other closely enough to be a single course of action. Commenters felt that the proposed Vegetation Management, Watershed Improvement and Restoration, and Sustainable Recreation Management were not closely related enough to be included in one analysis, given the size of the area and the time frame for implementation. They felt that the proposed timber harvest (Vegetation Management) would adversely affect and directly compromise both the Watershed Improvement and Restoration and Sustainable Recreation Management; therefore, these activities should not be included in the same analysis. Commenters felt that the Forest Service failed to explain its rationale as for why all of these activities are related to each other closely enough to be, in effect, a single course of action.

#### **Forest Service Response:**

The scope of the Project Area is all of Prince of Wales Island and surrounding islands. This allows for “one decision to authorize integrated resource management actions on Prince of Wales Island over the next 15 years” (DEIS, p. 1). CEQ NEPA regulations also state that “cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement” and “similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.” The POW LLA Project seeks to meet multiple resource objectives through an integrated approach by looking at all types of activities (recreation, aquatic, wildlife, vegetation, etc.) that may be used to improve forest ecosystem health, help support community resiliency, and provide economic development within the same geographical area (the Thorne Bay and Craig Ranger Districts) and within the same timeframe (15 years). Many of these activities, when viewed together cumulatively, have significant impacts and should therefore be discussed in the same impact statement. The scope of the project is appropriate for the decision to be made (DEIS, p. 8).

## Appendix D

### Draft Environmental Impact Statement violates the National Forest Management Act

#### Concern Statement:

The concern is that the analysis in the DEIS violates the NFMA. Specific requirements that are listed as missing include the following:

1. energy requirements and conservation potential of various alternatives and mitigation measures;
2. natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures; and
3. urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.

Request for changes to be made to the final NEPA document: include discussions of these three items. Failure to do so will violate NFMA Section 5, 40 CFR 1500.1(b) and 40 CFR 1502.16.

Commenters also feel that the DEIS does not examine detailed information or consider expert opinion.

Commenters also felt that the link to the 2016 Tongass Land and Resource Management Plan (Forest Plan) was not explained fully. The concerns were that the POW LLA Project would not adhere to the 2016 Forest Plan. One particular commenter felt that the 2016 Forest Plan needed to be modified as explained in their comments to the 2016 Forest Plan.

#### Forest Service Response:

Please see the responses to “Geographic specificity,” “Cumulative effects analysis is insufficient,” “Hard look,” “Cultural resources: irreversible and irretrievable effects,” and the various Wildlife responses (i.e., “Queen Charlotte Goshawk,” “Alexander Archipelago Wolf,” “endemics,” “Prince of Wales ermine,” “Prince of Wales flying squirrel,” and “biogeographic province v. wildlife analysis areas analysis”) that explain how the project meets legal requirements through this analysis. Also see updated information in Chapters 1, 2, and 3, and Appendix B, of the FEIS.

The three items requested will be added to the Project Record, including energy requirements and conservation potential, natural or depletable resource requirements and conservation potential, and urban quality and design of the built environment.

Detailed discussion of effects to resources, including rationale and scientific literature considered and cited is included in Chapter 3 of the DEIS and FEIS under “Environmental Effects” for each resource. See also Chapter 4, References.

Chapter 1 of the DEIS and FEIS “Purpose and Need for Action” and “Relationship to the Forest Plan” describe how this project implements Forest Plan direction. The discussions under the resource sections describe how proposed activities are consistent with Forest Plan direction. One alternative introduced during scoping – Alternative 4 – was not analyzed in detail because it would have required a Forest Plan amendment (see “Alternatives Considered but Eliminated from Detailed Study” in the FEIS, Chapter 2). The Responsible Official decided to not amend the Forest Plan through this project, to narrow the scope of analysis.

See also comment Wildlife: NFMA/NEPA.

### Cost-benefit analysis

#### Concern Statement:

One commenter felt that a cost-benefit analysis was required.

#### Forest Service Response:

The Responsible Official did not request a cost-benefit analysis for the POW LLA Project to assist in making the decision nor is it required by 40 CFR 1502.23: “For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.”

In the case of the POW LLA Project, the qualitative values are more important than a cost-benefit analysis whose primary use is to determine which alternative produces the most financial gain. The cost-benefits associated with the other activities included in the POW LLA Project would not be reflected in the typical cost-benefit tools used solely for timber projects. These qualitative values are described for each resource affected or activity proposed for the project. The effects to resources are described quantitatively, if possible. If quantitative summary of the effects is not possible, qualitative measures are used.

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.

### Comment period extension

#### Concern Statement:

One commenter felt that a 45-day comment period was not adequate to analyze and comprehend a complex DEIS.

#### Forest Service Response:

Environmental impact statements are subject to 40 Code of Federal Regulation (CFR): 1506.10(c), which states that the agencies shall allow not less than 45 days for comments on draft environmental impact statements. The POW LLA Project DEIS met this requirement. From the depth and amount of comments received, it appears that this was adequate time for most commenters to respond.

### Incomplete and unavailable information

#### Concern Statement:

The concern is that the analysis is based on incomplete or unavailable information, which requires specific disclosures in the DEIS. Specifically, the DEIS has missing information regarding a variety of species (e.g., ermine, wolves, Prince of Wales flying squirrel) and, more importantly, fails to explain why the agency is not gathering that missing information.

## Appendix D

### Forest Service Response:

The DEIS identifies how the project addresses incomplete and unavailable information, starting on page 48. Specifically, the DEIS recognizes that there is incomplete knowledge about many of the relationships and conditions of wildlife, fish, forests, climate change, jobs, and communities. However, the basic data and central relationships are sufficiently well-established in the respective sciences for the Responsible Official to make a reasoned choice between the alternatives and to adequately assess and disclose the possible adverse environmental effects. See responses to wildlife comments on ermine, wolves, and Prince of Wales flying squirrel later in this appendix.

The DEIS also notes that all inventory and surveys have not been conducted within the entirety of the Project Area, but are ongoing throughout the project planning and Implementation Process. Information that is not available now may be available when activities within the planning area are proposed. The project plan is for 15 years of implementation; in that time, more resources and technology will become available to better define the existing condition and assist in project implementation. All Forest Plan Standards and Guidelines and relevant laws or regulations will apply during project implementation, thus effects will be within those identified in project analysis.

### Hard look

#### Concern Statement:

The concern is that the Forest Service did not take a hard look at all of the effects of the proposed project activities as required in the NEPA and contrary to almost 50 years of case law. Others are concerned that the Forest Service did not take a hard look at forest succession and analyze the value of allowing immature, recovering forests to provide long-term habitat values for wildlife. Some felt that the Forest Service did not take a hard look at the effects of allowing the export of logs without on-island processing. Commenters also requested that more data be given about the basis of the analysis in the DEIS.

#### Forest Service Response:

The POW LLA Project DEIS did take a hard look at the effects of implementing the action alternatives in the Project Area. 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 defined time frame give the resource specialists specificity to analyze the activities proposed in the action alternatives.

We feel the approach described demonstrates the required hard look and allows the Responsible Official flexibility during implementation to integrate projects at a landscape scale.

Chapter 3 of the DEIS analyzed the effects based on the current condition of the Project Area compared to the resulting condition should an action alternative be implemented. Chapter 3 includes a look at the five issues identified by the public and from internal scoping. It also contains the analysis of environment and effects for other resources, which were not included in the issues. The effects were analyzed based on the alternatives and current conditions.

For example, on page 113, Issue 4: Watershed Function (Aquatics) used the estimated logging and road building locations provided in the logging system and transportation analysis (LSTA) and the intensity of these activities to analyze effects for each alternative. On page 154, the POW LLA Project DEIS explains the assumptions made for Issue 5: Wildlife Habitat and Connectivity. The methodology assumed “that all potential harvest polygons (LSTA) would be harvested and the harvest method would be clearcut.” The soil productivity analysis, starting on page 297, looks at activities within the productive land base that are subject to “soil quality standards and include timber harvest, stream or vegetation restoration, temporary roads, landings, rock quarries, and wildlife enhancement projects.” By using these assumption and the LSTA (site-specific information), the resource-specific effects analyze the maximum effects by alternative, which is considered the “hard look.”

Alternative 3 does incorporate the Interagency Wolf Task Committee recommendations, including activities in different age groups of young-growth. Issue 5: Wildlife Habitat in Chapter 3 of the FEIS includes a discussion on modeling carry capacity across successional stages for average snow deer and marten habitat.

See the response to Timber management: Log export, Timber management: Export of western redcedar, and Economics: Export markets.

### **Prince of Wales Landscape Level Analysis approach**

#### **Concern Statement:**

Some commenters wanted more information on the specific process that was used for the Prince of Wales Landscape Level Analysis DEIS. One commenter wanted to know where, when, and how this process has been used in other NEPA documents.

Commenters did understand the use of a “conditioned-based” analysis for the DEIS. Some commenters supported the use of condition-based analysis but wanted more information on the specific process that will be used to determine activities. One commenter wanted to know where, when, and how this process has been used in other NEPA documents. Others wanted the POW LLA Project to go back to the standard NEPA format and not use conditioned-based analysis.

#### **Forest Service Response:**

The landscape-scale approach used for the POW LLA Project has been used and is continuing to be used by the Forest Service for other projects. The approach is described in the DEIS and has been expanded upon on in the FEIS (see Chapter 1, Introduction). See response to comment: Geographic Specificity.

The approach uses conditions, design features, or constraints in the alternatives, in conjunction with the resource-specific requirements in the Activity Cards (DEIS Appendix A) and the Implementation Plan (DEIS Appendix B) to bind the effects analysis in the EIS. These three components fit together and provide the foundation for the approach that is being used to provide the flexibility to meet project objectives. This approach will use on-the-ground conditions over the 15-year life of the project in order to guide implementation, while ensuring that implemented actions are within the scope of effects analyzed in the EIS.

Although people are accustomed to the standard format for NEPA documents, it is difficult to look at a landscape level analysis for various types of activities with a process that is generally set for one resource in a shorter amount of time that 15 years. Using the approach with conditions, design

## Appendix D

features and constraints allow for the integration of a variety of activities over a 15-year time frame. This facilitates a hard look at the effects of the activities on both the landscape and site scale.

A few examples of ongoing or completed landscape scale Forest Service vegetation management projects that are using a similar approach include the following:

- The Medicine Bow Landscape Vegetation Analysis Project: [https://www.fs.usda.gov/nfs/11558/www/nepa/106251\\_FSPLT3\\_4366899.pdf](https://www.fs.usda.gov/nfs/11558/www/nepa/106251_FSPLT3_4366899.pdf)
- The Chequamegon Red Pine Thinning Project: <https://www.fs.usda.gov/project/?project=45517>
- Grand Valley Spruce and Sudden Aspen Decline Project: <https://www.fs.usda.gov/project/?project=32168>
- The Blue Mountain Forest Resiliency Project: <https://www.fs.usda.gov/project/?project=48582>

### **Revised Draft Environmental Impact Statement or Supplemental Environmental Impact Statement needed before Final Environmental Impact Statement**

#### Concern Statement:

Commenters requested that a revised DEIS or Supplemental Environmental Impact Statement (SEIS) be completed to correct presumed deficiencies discussed in their comment letters.

#### Forest Service Response:

There are no plans to complete a revised DEIS or a SEIS for the POW LLA Project. Code of Federal Regulations (CFR) specify when an agency should supplement a DEIS or a FEIS.

#### (c) Agencies:

(1) Shall prepare supplements to either draft or final environmental impact statements if:

(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or

(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts (40 CFR 1502.9 (c)).

There have been no substantial changes in the Proposed Action, there are no significant new circumstances, and there is no new information that would require a supplement to the DEIS.

### **Purpose and Need**

#### Concern Statement:

The concern is that the Purpose and Need statement does not reflect the reality of Southeast Alaska's economy or the goal of transitioning away from the controversy and conflict of old-growth logging. The region has moved beyond massive old-growth logging as the primary economic driver. By including logging in the Purpose and Need statement for this project, the agency actually works against the economic interests of Southeast Alaskans. The economic drivers of the Southeast

economy (e.g., fishing, tourism, and recreation) depend upon intact, old-growth forests. The agency should be developing projects that support those industries and, in so doing, facilitate the transition away from environmentally and economically unsustainable industrial-scale old-growth logging.

### Forest Service Response:

The Purpose and Need for the project is based on the 2016 Tongass Land and Resource Management Plan (Forest Plan) desired conditions, goals, objectives, and the needs of Southeast Alaska communities. Timber harvest is included to meet the requirements of the Tongass Timber Reform Act (TTRA). The proposed activities will:

- contribute to the economic viability of Prince of Wales communities;
- help maintain the expertise and infrastructure of the timber industry;
- produce future desired resource values, products, services, and forest health conditions through the management of young-growth forests;
- restore watersheds to reestablish self-sustaining habitats that promote viable fish, wildlife, and plant populations which contribute to subsistence, traditional, and cultural uses by POW residents; and
- recreation opportunities will help the growth of the recreation and tourism sectors (DEIS p. ii).

Question 2 under the Summary in the FEIS explains why the project is being proposed on Prince of Wales Island. Starting on page 5 of the DEIS is a discussion on how the Purpose and Need responds to the goals and objectives in the Forest Plan. The need for the project is described in the DEIS, starting on page 6.

At this time, these sections support the Purpose and Need for this project and in this location.

The Socioeconomics section in the FEIS discusses the various industry sectors that contribute to the economic viability of the communities in the Project Area, including timber. Half of all Prince of Wales communities began as company-owned logging camps that transitioned to year-round communities, facilitated by state government land disposals (see FEIS Chapter 3, Socioeconomics). Although timber industry declined after the pulp mill closures in the late 1990s, timber industry continues to support Project Area communities that are traditionally dependent on the Tongass National Forest to provide natural resources employment and revenue (see FEIS Chapter 3, Socioeconomics).

## Alternative 1 – No Action

### Concern Statement:

Commenters requested the selection of Alternative 1 – the No Action Alternative for various reasons, including the need to move away from industrial-scale old-growth logging, concern for the amount of harvest damage that has already occurred, and concern for the preservation of the Tongass as a public treasure.

### Forest Service Response:

Alternative 1 provides the baseline for which to measure and compare the impacts of the action alternatives to, representing existing conditions in the Project Area. This alternative is considered, but it would not meet the Purpose and Need for the project (See the response to “Do not harvest timber in the Prince of Wales Project Area” and “Purpose and Need,” page 5).

## Appendix D

### Alternative 2 – Proposed Action

#### Concern Statement:

Comments that favored all or parts of Alternative 2 were received, while other comment suggested that the Proposed Action did not respond to the Tongass' position to transition to young-growth management.

#### Forest Service Response:

The Proposed Action, Alternative 2, was developed through public participation and includes activities suggested by the public. Other alternatives were developed to respond to comments that did not support parts of the Proposed Action.

All action alternatives propose young-growth harvest and all action alternatives support a transition to young-growth management. See FEIS Chapter 2, "Features Specific to the Action Alternatives, Alternative 2, Vegetation Management." This describes how the proposed harvest levels of old-growth and young-growth support the transition to young-growth management.

### Alternative 3

#### Concern Statement:

Alternative 3 received both favorable and unfavorable comments.

#### Forest Service Response:

Alternative 3 was designed based on scoping comments that aimed to address, "public concerns from past timber harvest and road construction and its effects to wildlife habitat, watershed function, and subsistence opportunities while supporting local small mills and 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. It incorporates mitigation measures beyond what is required in the Forest Plan, with reduced old-growth harvest and other measures to limit the effects of harvest, and emphasizes improvements in wildlife habitat on National Forest System (NFS) lands adjacent to non-NFS land to benefit subsistence users." (DEIS p. iii)

### Alternative 4

#### Concern Statement:

The concern is that Alternative 4 was eliminated from detailed analysis in the DEIS. The commenter felt that Alternative 4 should get full consideration because the Forest Service and State of Alaska are working on an Alaska-specific Roadless Area Conservation Rule (RACR). The commenter felt that the RACR would eliminate or relax the 2001 RACR restrictions, and the analysis for Alternative 4 should be completed to allow timber harvest in the 2001 Inventoried Roadless Areas within the 15 years of this project.

#### Forest Service Response:

The POW LLA Project is proposed to respond to goals and objectives of the 2016 Forest Plan, while moving the Project Area toward the desired conditions described in that Plan and to meet the needs of Southeast Alaska communities (DEIS p. ii).

The Selected Alternative in the 2016 Forest Plan ROD specifically addresses the Roadless Area Conservation Rule on the Tongass National Forest, and it makes inventoried roadless areas unsuitable for timber harvest (2016 Forest Plan ROD p. 19).

Alternative 4 included timber harvest in inventoried roadless areas and other areas not suitable for commercial harvest. This would require a Forest Plan amendment, in addition to changes to existing regulations. The Responsible Official decided to not amend the Forest Plan through this process to narrow the scope of analysis for this project. This matches the Notice of Intent (NOI) that was published in the Federal Register for this project (DEIS p. iii). See the FEIS, Chapter 2, “Changes between Draft and Final EIS, Regulatory Changes,” for an additional discussion of the pending Alaska Roadless Rule analysis.

### **Alternative 5**

#### **Concern Statement:**

Some comments supported Alternative 5 because it provides the following for the protection of old-growth: 1) on the north end of Prince of Wales Island, between the 20 Road and Sumner Straight; and between the western shoreline of Red Bay and the communities of Point Baker and Port Protection; 2) on the south-facing slopes below 800-feet in elevation; and 3) in Dry Pass, south of Port Protection. Some commenters did not support Alternative 5 in its entirety, or because it did not meet the needs of the current timber industry because of the smaller volume of proposed old-growth harvest.

#### **Forest Service Response:**

We have noted the comments on Alternative 5.

### **Suggested alternatives were not analyzed**

#### **Concern Statement:**

The concern is that citizen-generated alternatives were not analyzed because they limited timber harvest or focused on old-growth harvest. Others suggested an alternative that supports sustainable activities (including recreation, tourism, watershed improvements (e.g., red pipe removal), and restoration of wildlife habitat) and does not focus on timber production. They feel that the sustainable activities listed above will maximize benefits to the public. Some requested an alternative that includes no road construction, including temporary roads, and some requested an alternative that includes more timber harvest.

#### **Forest Service Response:**

Chapter 2 of the FEIS explains how the alternatives were developed, which alternatives were considered in detail, and which alternatives were considered, but eliminated, from detailed study and the reasoning behind this. Table 4, “Comparison of Action Alternatives,” in the DEIS shows actions common to all action alternatives, as well as the activities that vary by action alternative. For example, Alternatives 2 and 5 “Invasive Plan Management” would only use manual treatments to remove invasive plants, and Alternative 3 would use manual treatments and herbicides. Alternative 1 would not involve any activities that include timber harvest and road construction.

Alternative 5 responds to the public concerns to reduce the amount of old-growth timber offered. It would offer up to an average of 5 MMBF of old-growth timber annually from suitable timber lands for the duration of the project. Alternative 2 annual old-growth timber harvest would be 25 MMBF for the first 5 years and 15 MMBF for the ensuing 5. Alternative 3 annual old-growth timber harvest

## Appendix D

would be 10 MMBF for the first 5 years, 8 MMBF for the following 5 years, and then 5 MMBF. This range of old-growth harvest addresses the issues developed from public comment and internal analysis. The alternatives also vary in how they address resource issues. Alternative 2 does not incorporate the recommendations made by the Interagency Wolf Task Committee, but it does meet the 2016 Forest Plan standards and guidelines. Alternative 3 incorporates some of the Interagency Wolf Task Committee's recommendations. Alternative 5 incorporates all of the Interagency Wolf Task Committee's recommendations. Recreation infrastructure is treated differently in the action alternatives. Alternatives 2 and 5 would increase or realign recreation opportunities, and Alternative 3 would reduce the recreation infrastructure. Alternative 1, the No-action Alternative, proposed no activities, including no road building.

The POW LLA Project team considered four additional alternatives. This includes an alternative with no old-growth sales, limiting young-growth harvest until it reached culmination of mean annual increment (CMAI) requirements, requiring uneven-aged management prescriptions for all young-growth harvest, and maximizing watershed restoration, wildlife habitat improvements and recreation opportunities. This alternative was eliminated because timber volumes under this alternative would not sustain a local timber industry in order to meet the need for a sustainable level of forest products that would contribute to the economic viability of Prince of Wales area communities (DEIS p. 32).

To increase the amount of timber harvest, Alternative 4 was developed for proposing harvesting timber in inventoried roadless areas, T77 Watersheds, and The Nature Conservancy/Audubon conservation priority areas. This alternative was eliminated from detail study because it would require a change to regulations or an act of congress, as well as a Forest Plan amendment before it could be implemented.

### **Beach Fringe and other protected areas**

#### **Concern Statement:**

The concern is over the harvest of timber in the Beach Fringe and other protected areas. One commenter was concerned that timber harvest in the Beach Fringe would occur on the northern shoreline of POW, and that, that would negatively impact areas beginning to return to better habitat conditions. One commenter was concerned that any harvest in the Beach Fringe and other protected areas would impact wildlife species, including the black oyster catcher. They were also concerned that the Forest Service did not consider scientific opinion regarding the importance of these areas on Prince of Wales Island.

#### **Forest Service Response:**

As pointed out in the comments, the 2016 Tongass Land and Resource Management Plan (Forest Plan) does allow young-growth harvest in the Beach Fringe and other protected areas, such as riparian management areas, outside of the TTRA buffers in the Development LUD and Old-growth Habitat LUD (OGR) areas. The Forest Plan specifically includes desired conditions that "harvesting of young-growth stands in riparian management areas and Beach Fringe provides opportunities to improve or maintain fish and wildlife habitat by accelerating old-growth characteristics" (Forest Plan page 5-2).

The intent is that determinations of prescriptions and opening sizes of young-growth treatments in the beach and estuary fringe, riparian management areas outside of the TTRA buffers, and in old-growth reserves all consider spatial and temporal conditions of adjacent landscapes, and all imitate the natural scale and distribution of disturbance patterns on the Tongass. The size and number of harvest

openings or percent basal area removed is limited by the Forest Plan in these areas. It is expected that treatment prescriptions will promote a more rapid recovery of the old-growth forest characteristics, while also producing commercial timber byproducts (Forest Plan p. 5-4, 5, 6 and 8). These requirements are incorporated in the Activity Cards for young-growth management (Activity Cards 01, 02 and 03).

The Biological Assessment and Biological Evaluation (BABE) includes an analysis of the effects to the black oystercatcher. The black oystercatcher is a Region 10 Sensitive Species that uses the beach/shoreline habitat. In the BABE, the determination for the black oystercatcher is that the proposed activities may impact individuals, but they are not likely to cause a trend to federal listing or a loss of viability.

### **Wilderness activities: activities considered**

#### **Concern Statement:**

The concern is that the POW LLA Project DEIS did not include projects in congressionally designated wilderness areas due to the perceived “bureaucratic procedures” required to implement activities in wilderness areas. According to the Alaska National Interest Lands Conservation Act (ANILCA), activities that can be in wilderness areas include restoration and enhancement projects; a three-sided shelter within the South Prince of Wales Wilderness; development, improvement, and/or enhancement of maintenance to the Karta Cabin and trail; and various fish habitat improvement projects in the Karta River Wilderness and the South Prince of Wales Wilderness; snowmachine use for traditional activities; trail maintenance and construction; and kayak and canoe launches.

#### **Forest Service Response:**

The POW LLA Project team did consider projects in wilderness areas, including fish habitat improvement projects, watershed restoration projects, and a three-sided shelter. We realize that these activities are authorized in wilderness areas under the ANILCA. However, the ANILCA also directs the Forest Service to condition many such authorizations with reasonable regulation, terms and conditions, the preservation of wilderness character, or other such clause that provides the agency some discretion in determining the minimum necessary activities in wilderness. To determine the minimum necessary, we follow a two-step Minimum Requirements Analysis (MRA) process that: 1) determines whether the action is necessary for administration of the area for wilderness purposes, and 2) determines the minimum requirement for accomplishing the activities - that which causes the least amount of impact to the five qualities of wilderness character. For the uses and activities allowed by the ANILCA, the analysis focuses on the second step of the two-step process.

The MRA process should be completed prior to the NEPA process because it should be used to inform the NEPA process. Further, according to Forest Service policies, the approval authority associated with most activities in wilderness, including many of those allowed by the ANILCA, are at the Regional Forester or higher level. Because the MRA process is not complete for these additional projects, they were not included in the POW LLA Project analysis. Just because additional activities in wilderness were not considered in the POW LLA Project DEIS does not mean that they cannot be proposed or implemented in the future. A MRA and a separate environmental analysis would need to be completed for each proposed activity.

The only activity considered in wilderness areas in the DEIS is treatment of invasive plant species because a MRA was completed and approved by the Regional Forester for this activity in May 2018 (see FEIS Chapter 2, Features Common to All Action Alternatives). The MRA allows for site-

## Appendix D

specific, professional judgment when determining weed treatment options, including hand-pulling, tarping, and various means of applying herbicides. The analysis of the proposed weed treatment activities on wilderness areas considered the effects on the following five qualities of wilderness character: Untrammeled, Undeveloped, Natural, Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation, and Other Features of Value (DEIS p. 254). Wilderness character will be maintained through project implementation.

### **Wilderness activities: snowmachine use**

#### **Concern Statement:**

The concern is that the Effects Analysis for the action alternatives are written as if snowmachine use is not allowed in wilderness, but snowmachine use for traditional activities is allowed under the ANILCA Section 110(a). Certain language in the analysis (DEIS pages 258-259) should be deleted or changed.

#### **Forest Service Response:**

The commenter is correct: the language used in the analysis is inconsistent with the ANILCA. The requested changes have been made in the FEIS.

### **Wilderness activities: management direction**

#### **Concern Statement:**

The concern is that the Activity Cards in Appendix A unnecessarily limit opportunities for public access to wilderness. Specifically, the Resource Specific Guidelines for Wilderness contain boilerplate language about the need for a MRA, but they lack the more specific direction in the ANILCA and national and regional wilderness policy. Because of the sole focus on the MRA, the Guidelines imply that the activity must be necessary to “protect or restore the wilderness resource,” yet the Forest Service guidance for some activities is aimed at furthering the recreational purpose of wilderness per the Wilderness Act, rather than simply protecting or restoring the wilderness resource. The ANILCA has other specific allowances in wilderness. The commenter recommended changes be made to Activity Cards 25, 38, 40, 45, and 46.

#### **Forest Service Response:**

We took a closer look at the Wilderness Resource Guidelines in the Activity Cards. The cards are not intended to repeat or supplant wilderness management direction from the Wilderness Act, ANILCA, Forest Service regulations, national and regional policy, or the Forest Plan. The review resulted in an extensive revision of all the Wilderness Resource Guidelines in all the Activity Cards to better reflect that the POW LLA Project FEIS does not analyze any activity in wilderness other than invasive species management. Additional activities in wilderness, if proposed at some future date, would go through a MRA as needed or required, and a separate environmental analysis would be completed. We would take under consideration the need to protect or restore the wilderness resource while also furthering public purposes of wilderness, including recreation and public access to wilderness lands. The Wilderness Resource Guidelines now reflect only those activities that are analyzed in the POW LLA Project FEIS.

### **Cumulative effects analysis is insufficient**

#### **Concern Statement:**

The concern is that the cumulative effects analysis is not sufficient to determine impacts. One commenter requested that the cumulative effects analysis list all past timber harvest in the Project Area. Another commenter pointed out the potential for negative impacts based on cumulative effects with the proposed actions.

#### **Forest Service Response:**

Appendix C of the POW LLA Project DEIS is the Catalog of Present and Reasonably Foreseeable Future Activities table. Appendix C includes present and foreseeable projects, but it does not include a list of past projects. As pointed out on page 47 in the DEIS, past “projects considered in cumulative effects analysis generally are physically located on the landscape, such as roads. The past projects combined with the natural environment, represent the affected environment that is described for each resource in this chapter. These projects include timber harvest, thinning of harvested stands, recreation developments, road construction and log transfer facility (LTF) construction; stream restoration and enhancement, and highway construction.”

Listing all of the past projects by name does not enhance the analysis of the current condition as displayed in Alternative 1, the No Action Alternative, and in the individual resource analyses in the POW LLA Project DEIS under the “Affected Environment” heading. The past project effects are included in the analysis. To help clarify this, the following sentence has been added to page 64 of the FEIS: “GIS layers include all past harvest and roads. These layers were used in the analysis to describe existing condition.”

### **Watershed: timber harvest in restoration watersheds**

#### **Concern Statement:**

Concern was raised about timber harvest occurring in watersheds that have been restored or are in need of restoration.

#### **Forest Service Response:**

The FEIS effects analysis has been updated in response to this concern. Chapter 1 of the DEIS explains the need for this project, which includes “a need to contribute to the economic viability of Prince of Wales area communities by providing a sustainable level of forest products to help maintain the expertise and infrastructure of the timber industry. Timber harvest would be integrated with restoration opportunities in a sustainable manner that meets multiple economic, forest, and watershed objectives”... (DEIS p. 7). The Forest Service is considering timber harvest in watersheds that have been restored (such as Luck, Staney, Twelvemile, and Harris) because they are within Forest Plan land use designations that allow timber harvest. Degraded condition in these watersheds resulted from past practices which are no longer used. All action alternatives comply with current Forest Plan direction, which ensures salmon habitat protection and continued recovery of watershed condition. Issue 4 (Watershed Function, DEIS page 14-15) specifically addresses the concern for additional logging and roads in watersheds where restoration has been completed. Two watersheds with major restoration – Staney and Twelvemile – could experience detectable increases in peak stream flows in Alternative 2 (DEIS page 143). The locations and extent of impacts will be determined during the Implementation Process, when further public review and input will occur (Appendix B). Potential peak flow rate increases will be analyzed to ensure that effects are within the scope of the decision

## Appendix D

and do not degrade salmon streams. Ongoing monitoring of restoration efforts is funded and reported. Monitoring reports are available in the Project Record.

### **Watershed: watershed thresholds for roads and timber harvest**

#### **Concern Statement:**

Concern for salmon stream degradation in the context of watershed thresholds for timber harvest and road building. Statement that the Forest Service should prioritize red pipe replacement.

#### **Forest Service Response:**

The FEIS effects analysis has been updated in response to this concern. The Forest Plan does not contain numeric thresholds for timber harvest or road impacts on aquatic resources. Therefore, we used relevant numeric literature thresholds for a method of analyzing effects to aquatic resources. Table 34 on page 138 of the DEIS shows analysis thresholds for peak flow rate changes relative to road building and timber harvest derived in Grant *et al.* 2008. Potential peak flow rate increases will be analyzed during the Implementation Process to ensure that effects are within the decision and do not degrade salmon streams.

Page 97 of the DEIS indicates that a design feature of Alternatives 3 and 5 would not allow increases to peak flow rates. Increases in peak flow rates, that are possible within 36 watersheds in Alternative 2, could have adverse effects to fish habitat (DEIS p. vii). For more information about peak flow estimates refer to page 137 of the DEIS.

Replacement of red crossings is an ongoing process, and it could continue under all POW LLA Project action alternatives, as funding allows. This is indicated in Table 4, on page 35 of the DEIS. See the response to “Aquatic organism passage/red crossings,” for more information.

### **Watershed: temporary roads**

#### **Concern Statement:**

Commenters are concerned with the construction and decommissioning of temporary roads in the context of sedimentation of adjacent aquatic resources.

#### **Forest Service Response:**

The DEIS acknowledges effects of temporary roads and the fact that they are decommissioned through standard practices. No road will be constructed with substandard surface or drainage. All road construction will meet best management practices. Best management practices for roads are listed on the Activity Cards in Appendix A. The FEIS was updated for all action alternatives to allow limited, short-term (up to 3 years) public access along proposed temporary roads, according to the following stipulations: where there are no specific safety or resource concerns, to gather firewood or biomass, or once timber harvest activities are complete. These roads will then be decommissioned. Temporary road decommissioning practices are described in the Activity Cards (block access, restore natural drainage, and control erosion).

## **Climate: general concern for Forest Service priorities related to climate change**

### **Concern Statement:**

Concern was raised that the ecosystem services provided by intact forests will be greatly compromised. Many commenters responded to the POW LLA Project DEIS, expressing that old-growth trees are needed for oxygen, air quality, water quality, soil stability, terrestrial and aquatic wildlife habitat and carbon sequestration (climate change). It was further expressed that the Forest Service should promote habitat restoration, tourism, and carbon credit sales in lieu of providing forest products.

### **Forest Service Response:**

The Purpose and Need for Action (Chapter 1 of the FEIS) describes the goals and objectives for many of the uses and resources considered for the POW LLA Project Area. These were considered in accordance with the Forest Plan, which also acknowledges ecosystem services (page 2-2). Ecosystem Services are a component of the goals and objectives for the Tongass National Forest. Ecosystem services include the full suite of goods and services that are vital to human health and livelihood by ecosystems on the Tongass National Forest. The Forest is managed to produce desired resource values, products, services, and conditions in ways that also sustain the diversity and productivity of ecosystems. Carbon credit sales are outside the scope of this project.

## **Climate: further analysis for climate change**

### **Concern Statement:**

Request for further analysis and discussion to disclose the full impact of the project on climate change.

### **Forest Service Response:**

A qualitative analysis of potential impacts on carbon storage and climate change is provided on page 52 of the DEIS. Additional information has been added to the FEIS and the Project Record. The analysis tiers to the 2016 Forest Plan Amendment FEIS analysis and concludes that carbon sequestration would be lower under the action alternatives; however, the magnitude of change is insufficient for comparison purposes to provide for reasoned choice among the alternatives. The ranking of impacts anticipated per alternative provides the deciding official sufficient information to make a reasoned decision.

## **Soil erosion, landslides, and slope instability**

### **Concern Statement:**

Commenters are concerned about slope instability, potential soil erosion, and landslides due to proposed management activities (such as harvest and road construction).

### **Forest Service Response:**

Maintaining soil productivity and minimizing soil erosion are primary concerns when managing soil resources on NFS lands. Management activities will be designed to avoid or minimize these effects, and we have analyzed the effects in the Soils analysis in the FEIS.

## Appendix D

Soil quality monitoring over the last 25 years on the Tongass has not found widespread soil erosion associated with logging practices and road construction (DEIS Soils section p. 304). An annual best management practice (BMP) monitoring of timber harvest units and roads continually finds high rates of BMP implementation and effectiveness (Annual Monitoring and Evaluation Reports).

Logging can change the amount of water infiltrating into soils and the way water moves through soils. These soil hydrology changes can affect slope stability. The best available data was used to estimate the effects of the project alternatives on landslide occurrence. Estimates of the numbers and acres of landslides associated with each of the proposed alternatives is discussed in the DEIS Pages 3-302 to 3-308.

For proposed timber harvest on slopes over 72 percent gradient on-site slope stability assessments are required (2016 Forest Plan p. 4-62). The slope stability assessment includes a consideration of the downslope resources at risk. For roads located on slopes greater than the internal angle of friction of the soils, a geotechnical investigation is required (2016 Forest Plan p. 4-78). Slope stability assessments on steep slope areas where timber harvest or road construction is proposed are ongoing on the POW LLA Project Area.

### Soil compaction

#### Concern Statement:

A commenter expressed concern about heavy equipment detrimentally damaging wet soils.

#### Forest Service Response:

Logging equipment can compact soils. Soil compaction is somewhat dependent on soil moisture conditions at the time of equipment use. Soil compaction studies on the Tongass have not found detrimental soil compaction at more than a few isolated sample sites on equipment trails. The 2016 Forest Plan Amendment EIS (pp. 3-42 and 3-43) provides several reasons for the lack of detrimental soil compaction in Tongass soils.

Roads can compact soils and reduce biological activity in soils. Compaction of soils is necessary and desirable for a stable road bed. NFS roads are not considered part of the productive land base. Temporary roads are considered detrimental soil conditions due to displacement and compaction.

### Soil productivity

#### Concern Statement:

A commenter expressed concern about reforestation and soil capability.

#### Forest Service Response:

Tree regeneration on Prince of Wales Island has been natural and stands meet minimum Tongass National Forest stocking guidelines within the 5-year time period required by the NFMA. Site Index is a measurement of soil productivity using tree height achieved over a specified time period. The Tongass National Forest uses Farr's 1984 values published in PNW-326 (Farr, 1984). The values from this paper have been extrapolated out to each of the different soils on the Tongass. Some soils are capable of growing a commercial size tree in 30-50 years, while some are not. Soils that are incapable of reforesting and growing trees are classified as a low site index and have not been historically harvested or planned to be harvested in the future. Currently, planting is not used on the forest as a reforesting tool, but it has been used to enhance species diversity. If planting or inter-

planting activities occur, site index and other site variables help determine how many trees per acre are planted (Appendix A, Activity Card 11).

Logging can reduce organic residues and associated microorganisms available for soil forming processes. Soil quality standards are written to preserve the productivity of the soil, including organic matter content and associated microorganisms. The Tongass National Forest has been monitoring soil disturbance associated with logging for over 50 years and the soil quality standards for over 25 years. As discussed in the DEIS and associated documents cited in the DEIS (Landwehr 2018a), all timber harvest proposed under the POW LLA Project is expected to meet the Regional Soil Quality Standards, based on our monitoring data.

In addition Tongass soil scientists consider the results of the Long-Term Soil Productivity Study (LTSP). There are no LTSP sites in Alaska, but lessons can be learned from the results at other sites with similar soil and environmental conditions. The LTSP is testing two different levels of soil compaction and two different levels of organic matter removal on soil productivity. 20-year results are available from the oldest sites in the study. The results from the LTSP studies are discussed in Landwehr 2018a. Due to the abundance of woody material left after logging, none of the proposed timber harvest is expected to result in a loss of soil productivity due to changes in organic residue volume or changes to the microorganism abundance and composition following logging. Based on soil quality monitoring data, all proposed project activities are expected to meet soil quality standards (see Table 81 on page 3-301 of the DEIS).

### **Soil and wetland effects**

#### **Concern Statement:**

A commenter recognized that the Forest Service failed to display the irreversible and irretrievable commitments for the soil and wetland resources.

#### **Forest Service Response:**

We have now added discussion of irreversible and irretrievable commitments for all resources, including soils and wetlands, in Chapter 3 of the FEIS. Roads on wetlands are considered an irreversible commitment of wetlands. All roads are considered an irreversible commitment of soil resources

### **Aquatic organism passage/red crossings**

#### **Concern Statement:**

There is a concern that remediation of barriers to aquatic organisms at road-stream crossings, known as “red crossings,” do not have adequate funding, will not be remediated in a timely manner, or are not prioritized by biological significance.

#### **Forest Service Response:**

The Forest Service has an active program to replace, repair, or remove aquatic organism passage (AOP) problems. Tongass-wide AOP remediation efforts are ongoing within the project area. Between 1998 and 2017, 213 sites have been replaced or removed. Of the 213 sites, 128 crossings have been removed, 28 replaced with bridges, and 55 replaced with culverts, all to provide passage. The estimated cost of this remediation is 5.4 million dollars, indexed to 2018 dollars. Annual Congressional appropriations cannot be predicted so out-year funding specific to AOP remediation is unknown; however, the Forest Service continues to seek funding opportunities and accrued \$870,000

## Appendix D

in 2017 to address AOP problems and complete survey and design projects for replacement structures. The FEIS and Appendix B (p. 11) have been updated to better reflect remediation prioritization criteria. Any fish stream crossings on new roads within the Project Area would be designed to allow full AOP.

### **Subsistence fisheries monitoring**

#### **Concern Statement:**

One commenter requested monitoring on red salmon populations and annual harvest in Red Creek.

#### **Forest Service Response:**

The Red Creek sockeye population may be selected for monitoring as part of fish habitat improvement activities as described in Activity Card 27 after following the processes outlined in the Implementation Plan (Appendix B p. B-12).

### **Fish habitat improvement projects**

#### **Concern Statement:**

A few commenters expressed concern about fish habitat improvement projects in Alternatives 2 and 5.

#### **Forest Service Response:**

Fish habitat restoration and fish habitat improvement activities are addressed separately in the DEIS. Forest Plan direction prioritizes restoration over improvement. The Implementation Plan Appendix B (pp. B-11 and B-12) outlines the decision process for fish habitat improvements. The Forest Service recognizes bio-enhancement (e.g., egg incubation and fry stocking) as a possible component part of a fish improvement project. Improvement projects may occur following the process outlined in Appendix B (pp. B-11 and B-12).

### **Economic effect of logging on fisheries**

#### **Concern Statement:**

A few respondents were concerned that the proposed logging activities would be detrimental to sport and commercial fisheries.

#### **Forest Service Response:**

Economic sustainability of Prince of Wales communities, including nearby outlying island communities, is an important part of the need for the project. Chapter 3 of the POW LLA Project DEIS does the following: assesses social and economic conditions and trends in Prince of Wales communities, describes public values and beliefs related to NFS lands management, and provides a foundation for considering how proposed project activities may affect community social and economic well-being.

The Forest Service recognizes the economic importance of commercial fisheries within the Project Area. Forest Plan direction and best management practices minimize effects of timber harvest on fish bearing streams; however, increases in peak flow rates, that are possible within 36 watersheds in Alternative 2, could have adverse effects to fish habitat (DEIS p. vii). For more information about peak flow estimates refer to page 137 of the DEIS. Overall trends in Southeast Alaska commercial harvests from 1960 to 2013 – including coho, pink, chum and sockeye salmon – do not indicate

specific downwards trends in these populations, or specific trends that could be correlated with amounts of timber harvest activity. The 2016 Tongass Land and Resource Management Plan (Forest Plan) Amendment FEIS provides further analysis on the effects of past forest management practices on salmonid fish stocks (pp. 3-112-113).

### **Impact of timber harvest on fish habitat**

#### **Concern Statement:**

Many commenters responded to the POW LLA Project DEIS, expressing that old-growth trees are needed for oxygen, air quality, water quality, soil stability, terrestrial and aquatic wildlife habitat, and carbon sequestration (climate change). A few respondents were concerned about impacts of young-growth harvest on aquatic resources. It was further expressed that the Forest Service should promote habitat restoration, tourism, and recreation in lieu of providing forest products.

#### **Forest Service Response:**

Page 126 of the DEIS provides an analysis of the environmental consequences to watershed function of each action alternative. Productive fish habitat is also important for sustainable fish populations, which support subsistence, commercial, and sport fisheries. The Forest Service will follow Activity Cards (Appendix A), the Implementation Plan (Appendix B), all state and federal laws, best management practices, and the Forest Plan direction in order to minimize adverse effects to fish, fish habitat, and the user groups who rely on them.

The Forest Service prioritizes stream restoration based on condition and function. All of the watershed/stream restoration locations mentioned have also been indicated as potential restoration sites in the DEIS on page 21, based on public input and as described in the DEIS on pages 126-127. The DEIS explains that activities will be implemented as funding becomes available. How projects will be funded during implementation is outside the scope of the NEPA analysis (Forest Service Manual (FSM) 1900, chapter 1950.1).

### **Prioritization of timber harvest over restoration**

#### **Concern Statement:**

Concern was expressed that the need for a continuous supply of timber to support the timber industry conflicts with the perceived need to protect and restore fish habitat from the adverse effects of timber harvest.

It was pointed out that the adverse effects from peak flow rate increases – like channel and stream bank erosion, sediment transport, and scouring of salmon redds – are natural processes that can occur outside the influence of logging, and that some sedimentation is necessary for productive fish habitat.

#### **Forest Service Response:**

Please refer to the “Issue 4: Watershed Function” in the POW LLA Project FEIS, and the 2016 Tongass Land and Resource Management Plan (Forest Plan) Amendment FEIS (pp. 3-51 to 3-52 and 3-112, 3-113, and 3-103) for a comprehensive discussion of effects of logging and roads as supported by relevant peer-reviewed literature (see responses to “Do not harvest timber in the Prince of Wales Project Area,” “Multiple Use and Sustained Yield Act of 1960,” and “Purpose and Need,” above).

## Appendix D

### Warm water fish kill

#### Concern Statement:

One commenter was concerned that timber harvest would increase stream temperatures that would result in fish kills. General concern for timber harvest leading to undesired outcomes, including fish kill.

#### Forest Service Response:

Stream temperature is discussed in Chapter 3 of the DEIS. The stream temperatures and dissolved oxygen levels that lead to fish kills can be brought about by a variety of circumstances, including lack of forest canopy, stream shading and high fish returns during low water levels, and warm weather. Current logging practices on Tongass National Forest lands adhere to laws such as the Tongass Timber Reform Act, which requires at least a 100 foot no-harvest buffer on all fish-bearing streams. As discussed on pages 3-56 and 3-72 of the 2016 Tongass Land and Resource Management Plan (Forest Plan), analysis of stream temperature data within Southeast Alaska found no detectable effect of timber harvest on stream temperature (Walters and Prefontaine 2005, Tucker & Thompson 2010).

### Effect of roads to fish habitat

#### Concern Statement:

Respondents were concerned that the proposed 164 miles of road construction will be detrimental to fish habitat.

#### Forest Service Response:

The DEIS recognizes that roads are a considerable source of resource effects. The “Watershed Function” section provides an analysis and quantification of road effects on streams and fish habitat. Soil quality monitoring over the last 25 years on the Tongass has not found widespread soil erosion associated with logging practices and road construction (DEIS p. 299). Annual BMP monitoring of timber harvest units and roads continually finds high rates of BMP implementation and effectiveness (Annual Monitoring and Evaluation Reports).

Road construction specifications are assigned to control construction activities. Construction drawings are assigned as needed for specific work items. No road will be constructed with substandard surfacing or drainage. Road maintenance by the commercial user is required to keep roads at specific levels throughout the use period. All road construction will meet best management practices, which are listed on the Activity Cards in Appendix A.

Road density is a monitoring requirement for each watershed in order to avoid adversely affecting water quality, and it is further analyzed in the DEIS (p. 128).

### Silviculture

#### Concern Statement:

Many commenters expressed concerns over old-growth logging and timber harvest in general as a practice for national forests. Comments were varied, but they included the following: protect the Tongass for its many values, preserve the Forest for future generations, and stop cutting old-growth trees altogether.

### Forest Service Response:

The Purpose and Need for the POW LLA Project is to respond to the Forest Plan multiple use goals and objectives to improve forest ecosystem health on the Thorne Bay and Craig Ranger Districts, help support community resiliency, and provide economic development through an integrated approach in order to meet multiple resource objectives (DEIS p. 5). Managing the forest for production of sawtimber and other wood products from suitable forest lands provides for the continuation of timber uses and resources by the timber industry and Alaska residents, and it is consistent with the Purpose and Need of the POW LLA Project. Harvest of old-growth timber is one method for achieving the stated Purpose and Need, and it is consistent with the Forest Plan (DEIS p. 6).

A variety of land use designations on the Tongass National Forest encompass a wide range of uses and values; from the Timber Production LUD, where promoting wood production and providing a supply of timber are the goals, to Wilderness, where the areas are to remain free from human control and manipulation. Old-growth timber harvest, including clearcutting, is an approved harvest method on the Tongass and is guided by specific management direction in the Forest Plan (DEIS p. 327).

### **Silviculture: clearcutting**

#### Concern Statement:

Many commenters expressed concerns over clearcutting in general as a forestry practice.

#### Forest Service Response:

Clearcutting must be determined to be the optimum treatment to meet project objectives (DEIS Appendix A, p. A-4) and is guided by direction in the Forest Plan. Additionally, even-aged clearcut harvest under the POW LLA Project is guided by the conditions established by the action alternatives in the DEIS (DEIS, p. 36), Activity Cards (DEIS Appendix A, p. A-27) and Implementation Plan, which includes a decision tree for how silvicultural prescriptions will be determined, based on the Forest Plan LUD and other site specific factors (DEIS Appendix B, p. B-22). The Implementation Plan also provides further opportunities to provide input on site-specific proposals (DEIS Appendix B, p. B-4).

### **Silviculture: uneven-aged management**

#### Concern Statement:

One commenter had concerns over how uneven-aged management may be implemented, with regards to gap size created by single-tree selection, total stand area removed, species regenerated, and the potential for high-grading to occur.

#### Forest Service Response:

During implementation of the POW LLA Project, more site-specific information for timber harvest activities will be provided to the public. 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. Uneven-aged management could be prescribed for a variety of reasons, including meeting additional resource objectives (such as wildlife habitat or maintaining scenic integrity) or for operational needs (such as for units suited for harvest by helicopter). Either single-tree selection (partial harvest) or group selection would be used, with group selections not exceeding 2 acres in size or approximately 33 percent of the stand area (DEIS, p. 328 and Appendix A, p. A-37 and 79).

## Appendix D

Experience has shown that implementing uneven-aged prescriptions in old-growth stands on the Tongass maintains old-growth structure and habitat in the stands post-harvest, meeting the treatment objectives. Trees retained in implementing uneven-aged management prescriptions maintain approximately the same ratio of species of the original stand composition. In order to avoid high-grading, retained trees will fall into one of the following three categories.

Crop trees – healthy, well-crowned trees of good form and vigor that are mostly disease free and are a representation of all species within the stand. These trees will normally be in the intermediate or codominant crown class, and they will grow into the overstory to become the high-value trees that make the next entry economical. They are of lower value now mainly because of size, and not form or defect.

Wildlife trees – lower value timber trees that may have high defect or poor form; all characteristics that make these trees more valuable for wildlife than for timber. These trees will normally be in the dominant and codominant crown classes and will be represented across all species.

Advanced and new regeneration trees – new trees that will grow into any opening created by harvest, as well as the smaller, already established, understory trees that will take advantage of the newly created growing space in openings in the canopy. These trees are currently in the intermediate and overtopped crown classes. The quantity and quality of natural regeneration can be controlled by focusing harvest openings where advanced regeneration currently exists or planning for adequate openings where potential seed sources will occur nearby. This is particularly important where advanced Alaska yellow-cedar regeneration exists or where good seed sources for Alaska yellow-cedar occur. An example would be to harvest a group of trees adjacent to a group of Alaska yellow-cedar wildlife trees.

### **Silviculture: two-aged management**

#### **Concern Statement:**

A commenter had concern over two-aged management not being called clearcuts.

#### **Forest Service Response:**

Regeneration methods refer to the manner in which a new stand is created. There are three categories of regeneration systems: even-aged, two-aged, and uneven-aged silvicultural systems. Two-aged systems that could be used in this project include patch clearcutting and clearcutting with reserves, and are only considered for young-growth management (see DEIS, p. 328; and DEIS Appendix A, p. A-32). The portion of the stand that is harvested does resemble and function like a clearcut, though the stand as a whole is managed as two distinct age classes and is correctly referred to as two-aged management, as the regeneration method. Under this system, patch clearcutting or clearcutting with reserves would be prescribed to retain at least 30 percent of the stand in an unharvested condition. A patchwork of openings (up to 20 acres in size) would be dispersed evenly throughout the stand, meeting two-aged requirements, that at least 15 percent of the original standing green tree basal area of the stand remains after harvest. The DEIS displays the effects on stand structure of even-aged and two-aged management in young-growth together for this same reason (DEIS, p. 332, Table 96).

### **Silviculture: prescriptions for windfirmness**

#### **Concern Statement:**

A commenter suggested that uneven-aged management and commercial thinning removals should be limited to 30 percent or less of the stand, leaving dominant and codominant stems, in order for the stand to remain windfirm. Another commenter suggested that more consideration needs to be given to windfirmness for timber harvests.

#### **Forest Service Response:**

Prescriptions for stands will be developed during the implementation phase, including the percent retention and removal in stands that are designated for uneven-aged management. For uneven-aged management, partial harvest (individual tree selection) should maintain at least 50 percent residual basal area in moderate windthrow risk areas and at least 75 percent in high-risk areas (DEIS Appendix A, p. A-79).

The wind risk rating for each stand will be determined prior to implementation and documented in the stand prescription, and Reasonable Assurance of Windfirmness (RAW) buffers will be applied to unit edges, and stream and karst buffers that have high exposure to southeast storm winds and are determined to be at risk from wind damage (DEIS Appendix A, p. A-4). The windthrow hazard evaluation performed for each stand utilizes topographic, tree, and stand characteristics in the determination of risk. Stand factors – such as uniformity, height, density, and tree species – are all considered. Stem taper, butt flare, and rooting depth are tree factors that are evaluated. Even though each tree species or stand composition may exhibit more or fewer factors indicating windfirmness, other factors such as topography, stand structure, and past history are equally important.

Further direction for RAW can be found in the Tongass Forest Plan Amendment FEIS page 3-62, and monitoring information can be found in the Tongass Young Growth Management Strategy (USDA Forest Service 2014). Continued monitoring will be utilized to inform RAW prescriptions to best account for relevant, detectable changes in climate.

### **Silviculture: young-growth management**

#### **Concern Statement:**

Numerous comments were received regarding young-growth management and the transition to more young-growth harvest, including: treat it lightly; use treatments to improve forest health and function; both the young-growth harvest of trees in this project and the transition effort itself is premature; the young-growth needs to recover to attain old-growth attributes; harvest of young-growth delays recovery to old-growth characteristics; harvesting young-growth would indicate the Forest Service values the early seral stage of forest development more; and that a transition away from old-growth is politically motivated.

#### **Forest Service Response:**

The purpose of the POW LLA Project is to implement Forest Plan direction and work toward achieving its goals and objectives (DEIS, p. 5), including transitioning from an old-growth to primarily young-growth timber industry (2016 Forest Plan ROD, p. 5). In order to begin this transition, the timber industry needs an economically viable supply of young-growth timber to develop new markets, refine skills, and acquire equipment necessary for a young-growth industry (Forest Plan pp. 5-3, 5-4).

## Appendix D

The transition from an old-growth dominated timber industry to a predominantly young-growth dominated timber industry is a Forest Plan issue that was analyzed and decided upon in the 2016 Forest Plan ROD. The POW LLA Project is designed to implement the Forest Plan as described in the Purpose and Need (DEIS p. 5). Young-growth stands will only be harvested after they meet minimum size criteria, as described in Chapter 2 of the FEIS.

The amount, type, and timing of young-growth management proposed by the POW LLA Project varies by alternative in response to significant issues (DEIS, p. 25); and it is guided by the Forest Plan, the Activity Cards, and the Implementation Plan. Table 4 on page 35 of the DEIS provides a summary and comparison of proposed young-growth management by alternative. An alternative was considered that required young-growth offered to meet CMAI, which would reduce the amount of young-growth available at this time and lengthen the time of transition to young-growth management. This alternative was eliminated from detailed study because timber volumes under this alternative would not sustain a local timber industry to meet the Purpose and Need of this project (DEIS, p. 32).

Chapter 2 of the DEIS defines the minimum volume per acre thresholds assumed necessary for economically viable young-growth harvest by alternative (DEIS pp. 20 and 37), and it assumes an average projected growth of 1 MBF annually per acre will occur in young-growth stands (DEIS, p. 95); the methodology for determining volumes for analysis is further described in the DEIS, as well (p. 317). This project is not meant to “prematurely” harvest young-growth trees, but to identify when stands of young-growth reach a size and quality to economically harvest, or to otherwise treat for stand improvement. The Implementation Plan allows flexibility to develop economically viable young-growth projects based on existing stand conditions over time and integrate with old-growth harvest when possible.

Prescription development during implementation will evaluate the use of even-aged, two-aged, and uneven-aged management in young-growth stands. Prescriptions must consider the long-term goals for the stands and collectively consider the effect over the landscape as it pertains to planning future timber treatments within the Project Area and how future opportunities are impacted by the various treatment options available.

### **Silviculture: Alaska yellow-cedar management**

#### **Concern Statement:**

A commenter stated that Alaska yellow-cedar high-grading has not been addressed, that the Forest Service is lumping together productive and unproductive sites when accounting for species composition, and that it is a rare forest component for which the largest trees should be retained with measures for windfirming them.

#### **Forest Service Response:**

Alaska yellow-cedar occurs throughout the approximately 2 million acre project area, across all LUD and ownership boundaries, and is particularly more common as either latitude or elevation increases (see DEIS, p. 326, for more information about Alaska yellow-cedar). On page 320 of the DEIS, Table 34 displays the potential old-growth harvest acres as a percentage of the total existing high, medium, and low volume strata acres by timber analysis area (TAA). Across the Project Area as a whole, approximately only 7 percent of the high and 5 percent of the medium and low volume strata acres, respectively, are included for potential harvest. As stated correctly in this comment, variance in site productivity results in a wide range of size and timber quality. This variance occurs at all scales, and it would be virtually impossible to identify at the landscape level those microsites which produce higher

volume Alaska yellow-cedar. Old-growth Alaska yellow-cedar would remain across much of the landscape, including in Old-growth Habitat and other non-development land use designations, which comprise a large portion of the Project Area (see map and table on pages 10 and 11 of the DEIS). The DEIS also states that “silvicultural tools for conserving and expanding Alaska yellow-cedar’s presence in the project area include uneven-aged management, planting, and precommercial thinning” (p. 326). For example, Alaska yellow-cedar would not be preferentially harvested (i.e., a higher proportion removed than the total percent represented in the stand) using uneven-aged management in old-growth stands, and large trees with high timber defect would be retained where they provide other resource values, such as wildlife habitat or seed source. See Concern/Response in Silviculture 2 for more information about uneven-aged management prescriptions in old-growth stands.

### **Silviculture: natural regeneration v. planting**

#### **Concern Statement:**

Several commenters were concerned about whether trees would grow back or whether the clearcut areas would be deforested like other areas of the world, unless they were planted.

#### **Forest Service Response:**

Natural regeneration on the Tongass following harvest has been prolific in the past and is not a reasonably foreseeable concern. Trees around each timber harvest unit naturally supply seeds to supplement the unharvested young trees already growing in the unit. Surveys are conducted to ensure that adequate regeneration of trees occurs within 5 years after harvest, as required by the NFMA (DEIS Appendix A, Activity Card 11). Regeneration surveys are included in post-harvest sale area improvement plans and are funded through monies collected from timber sale receipts. Most stands need to be thinned at an early age in order to obtain stocking levels that encourage optimum tree growth.

### **Silviculture: regeneration on karst**

#### **Concern Statement:**

Sensitive resource areas, such as karst environments, may not be as productive once harvested.

#### **Forest Service Response:**

The POW LLA Project is analyzing a range of alternatives with multiple harvest levels for the project planning horizon.

Regardless of subsurface bedrock type, tree growth rates are strongly influenced by the available amounts of soil nutrients, sunlight, water, and canopy cover an area has to offer. There are currently documented stands of young-growth trees on karst landscapes throughout Prince of Wales Island and vicinity. Areas of tree stand regeneration on karst land include, but are not limited to the areas of Kosciusko Island, Naukati, Stoney Creek, El Capitan, Whale Pass, Neck Lake, Red Bay, Labouchere Bay and Dall Island.

Timber stands on karst can be especially productive, given the increased rates of soil drainage associated with that subsurface bedrock type. Past harvest in these areas has, on occasion, caused detriment to the karst resource; this project identifies potential restoration treatments for those areas (Activity Card 28). Additionally, the Forest Plan provides standards and guidelines for the appropriate management of the old-growth and young-growth timber resource where it exists over karst (FP 2016, 4-23).

## Appendix D

Soil quality monitoring over the past 25 years has occurred on both karst and non-karst landscapes. The monitoring has included recently harvested stands and 50-year-old stands on karst. In all but a very few cases, soil quality standards have been met and young-growth stands on karst are often very productive.

### **Silviculture: precommercial thinning**

#### **Concern Statement:**

A comment was made about the increased precommercial thinning (PCT) and wildlife enhancement acres. The DEIS specifies that up to 4,500 acres a year may be treated, and that currently 1,500 to 2,000 acres are being treated per year. Commenter expects Forest Service to complete 5,000 acres of PCT and 1,000 acres of wildlife thinning per year.

#### **Forest Service Response:**

The Forest Service is actively working to continue to increase the number of acres treated each year for PCT and wildlife habitat enhancement.

### **Silviculture: pruning**

#### **Concern Statement:**

A comment was made that pruning is applied in older stands, after stem-exclusion, low on the tree where limbs are dead or dying for lack of light, and therefore will not increase deer forage. It is an expensive yet effective way to improve wood quality (future knot free growth) and should be justified and paid for on that basis.

The commenter feels that pruning is only beneficial for improving wood quality.

#### **Forest Service Response:**

Pruning is an intermediate silvicultural treatment that may be used in conjunction with other treatments, particularly thinning, to promote various resource values, from enhancing wildlife habitat and scenic views to improving wood quality. Pruning can be an effective tool for increasing wildlife value by allowing more sunlight to reach the forest floor over a longer period of time, thereby improving forage availability, especially for deer. Pruning is not considered a tool to only benefit wood quality; in fact, pruning can be detrimental to wood quality in spruce due to epicormic branching. Pruning is prescribed infrequently due to the wide range of variability in site conditions and cost/benefit considerations, but it is considered a useful tool for meeting multiple site-specific management objectives that include increasing the abundance of understory vegetation beneficial to wildlife. Preliminary findings from the Tongass Wide Young Growth Study (TWYGS) show a wide range in understory responses to pruning (Justin Crotteau, personal communication, 2018).

### **Timber management: timber inventory**

#### **Concern Statement:**

Several comments were received that requested a complete inventory of suitable old-growth volume/acres across the Project Area.

### Forest Service Response:

Since 2015, an intensive effort has been underway to update and refine the existing stand exam and aerial photography-based timber inventory. Data and this effort continues. Preliminary on-the-ground timber reconnaissance has been completed on approximately 29,200 acres of potential harvest old-growth stands from the POW LLA Project LSTA. The old-growth data collected includes: species composition, plant association, estimated volume per acre, and a preliminary logging system determination. Areas without any inventory data used extrapolated data from inventoried stands in combination with data from the Tongass National Forest GIS library aerial photos. A 50 percent volume reduction was applied to these stands in order to allow for a more conservative estimate. This reduction is based on the project inventoried stands that were deemed to be potential harvest stands, as compared to the project LSTA.

In young-growth stands 40 years in age or older, extensive inventory data has been collected in the Project Area over the past several years. Stands 55 years and older were inventoried under the Challenge Cost Share Agreement (CCSA) plot intensity of one plot for every 2.5 acres and stands between 40 and 54 years old were inventoried under the Common Stand Exam (CSE) protocol that uses a plot intensity of one plot for every 5 acres.

The Inventory and Analysis Methods section in the FEIS, Chapter 3, Issue 3 describes the reconnaissance, inventory, and volume estimation process.

The analysis of project alternatives used this data as the best available information to estimate potential timber sale harvest volume and acreage, and to provide a firm baseline from which we can identify realistic timber sale and stewardship opportunities and compare alternatives. This includes evaluating differences in past projects and utilizing that knowledge to refine future estimates.

During the Implementation Process for any timber harvest activity, further inventory of potential harvest stands will occur, including a statistically accurate cruise for both old-growth and young-growth offers.

Falldown is the difference between timber volume estimated at project initiation and the actual volume offered for sale, and it is responded to under topic “Timber management: falldown.”

### **Timber management: timber volume from other landowners**

#### Concern Statement:

Several commenters felt that the Forest Service did not take into account the amount of timber that may or may not be available from other landowners in Southeast Alaska.

#### Forest Service Response:

The Prince of Wales Landscape Level Analysis DEIS, pp. 108, C-1, C-4 and C-5, attempted to identify timber that may be made available from other ownerships, both currently and in the future, to complete a cumulative effects analysis. The information used in the DEIS is the best information obtained at the time and will be updated, if needed, in the FEIS. However, all the other landowners are not under any direction to provide timber to local mills as the Forest Service is to comply with the TTRA. Even with the Tongass’ Limited Export Policy, most of the higher grade Sitka spruce, western hemlock, and western redcedar goes to local mills for primary manufacture.

Even without the onus to provide timber for local mills, timber is supplied to local mills by the State of Alaska agencies and other sources. This has been tracked throughout the ANILCA 706(a) reports,

## Appendix D

the 1997 Forest Plan revision FEIS (p. 3-281), the 2008 Forest Plan Amendment (p. 3-500), and the 2016 Forest Plan Amendment (p. 3-341).

The amount of timber available from non-NFS lands, including State of Alaska lands, depends on the goals and objectives of that owner. The Forest Service has no control over what purchasers of non-federal timber do with harvested material, and whether it is made available for local processing or exported. If 102 MMBF is harvested from state lands over the next 5 years, the 5-year average of 20.4 MMBF per year closely matches the 5-year average of state harvest projections for the years 2018 to 2022 of (19.8 MMBF per year) that can be found in Table 12 of Daniels *et al.* (2016). Thus, information provided in the comment, with respect to increased harvest levels from State of Alaska lands, confirms projected estimates for harvest from state lands that have been incorporated into the 2016 Forest Plan.

### Timber management: export jobs

#### Concern Statement:

Some comments were received questioning the need of the limited export policy and the perceived loss of timber industry jobs supported by allowing export. Other comments felt that if timber is exported then the profits would only be realized by a few timber brokers. Commenters also had the opinion that the Forest Service required export on all timber contracts instead of being up to the purchaser to request an export permit.

#### Forest Service Response:

The trade-offs between allowing a percentage of export for a timber contract and on-island processing is something that will be considered when completing a timber sale offering. Often, export is incorporated into an appraisal to make an offering positive since, in Region 10 only, the Forest Service cannot offer a contract unless it appraises positive. Some contracts contain provisions for adjustments to encourage the domestic processing of Western redcedar and also Alaska yellow-cedar and Sitka spruce if they have been appraised for export. These provisions include C(T)4.13#, Domestic Processing Adjustment for Alaska Yellow Cedar (AYC) (6/04), C(T)4.130# Domestic Processing Adjustment for Western Red Cedar (WRC) (6/04), and C(T)4.135# Domestic Processing Adjustment for Sitka Spruce (10/14).

However, whether the purchaser chooses to export and how much of each species is requested for export is part of that choice. These requests are made some time after the contract is awarded to the regional Forester and again the purchaser is not obligated to export the full amount of the request. Because of the uncertainty of the amount of timber to be exported, the analysis for this document on potential jobs supported used the full amount of volume that could be exported under the current limited export policy compared to the amount of volume assuming 100% domestic processing except Alaska yellow-cedar which is considered surplus to Alaskan needs. This shows a range of potential jobs supported. Other factors may also affect the future jobs supported since the jobs/MBF is based on available past information and as more information is collected this value may change.

While sawmilling jobs may not be supported if timber is exported, other local jobs, such as logging and stevedoring are supported, as well as indirect jobs that support those industries like trucking and retail and wholesale trade. A negative appraisal means that the contract would not be offered and no jobs would be supported in any industry.

Comments regarding the Alaska Region's limited export policy were also included in objections to the decision on the 2016 Tongass Plan Amendment. This issue was responded to at that time and is

outside the scope of a project-level NEPA analysis (2016 Tongass Plan Amendment [see pp. 138-141 of that response]). Also the 2016 Tongass Plan Amendment FEIS, Appendix H describes the history of export in Alaska including the Limited Export Policy plus the effects of the policy on the Tongass. Based on the Regional Forester's review of the Tongass Plan Amendment record in response to the objections on the Amendment, the limited export policy was found to be consistent with applicable law and regulation. The Amended Plan and the export policy are programmatic decisions which neither authorize nor compel any action. The case-by-case consideration of additional export is consistent with the expressed authority granted the Regional Forester in 36 CFR § 223.201.

Export is not required on any particular timber sale offer; the export policy itself neither compels nor authorizes export for an operator. Rather, the objective of the export allowance is to facilitate the purchasers' participation in global timber markets and provide access to the most advantageous markets for their products, which provides flexibility for the operator. Tongass export data for years 2001 through 2017 are available to the public on the Alaska Region website under Land Use Management/Resource Management /Forest Management Reports and Accomplishments page: ([https://www.fs.usda.gov/detail/r10/landmanagement/resourcemanagement/?cid=fsbdev2\\_038785](https://www.fs.usda.gov/detail/r10/landmanagement/resourcemanagement/?cid=fsbdev2_038785)) and has been placed in the Project Record. The amount of export in the future may or may not follow past practices due to purchaser's decisions, markets and species composition of future timber contracts.

### **Timber management: falldown**

#### **Concern Statement:**

Some comments were received concerning the amount of 'falldown' expressed between the planned document and the implemented harvest acres and volume.

#### **Forest Service Response:**

The difference between timber volume estimated by alternative during project analysis and actual timber volume offered for sale is called "falldown". It can vary from project to project. The actual volume and acreage of any potential timber sale offered will not be known until after the contract is completely harvested. During the development and analysis of project alternatives, every reasonable effort is made to make the best estimate of potential economic timber sale harvest volume and acreage. This includes evaluating differences in past projects and utilizing that knowledge to refine our future estimates. As the project moves into implementation, volume estimates may change as harvest areas continue to be refined through additional analysis field reconnaissance. When "falldown" occurs, it can be the result of additional resource concerns being identified on the ground that require protection according to Forest Plan direction. The use of 50 percent reduction factor in the un-inventoried old-growth stands was based in part on the falldown experienced from the data collected during the inventory of old-growth stands.

These volume estimates presented in the DEIS provide a "starting point" for the IDT and public to consider and compare potential effects of the alternatives. They are not intended to be, nor are they claimed to be, a determination of final net sale volume. While much field information has been collected for the environmental analysis for this project, as described in Chapter 3, Issue 3, in the Inventory and Analysis Methods section of this FEIS the location and unit selection for potential timber offers has not been determined. Usually timber harvest units are not completely defined on the ground prior to the NEPA analysis due to the amount of time, money, and personnel that it would take and given that until a ROD is signed, the selected alternative is not known. Field reconnaissance review of the stands selected for harvest from within the POW LLA Project LSTA may find some

## Appendix D

acres do not have sufficient volume to be considered suitable timber, and some areas will prove too costly to road or are otherwise uneconomical.

Historically, falldown has been both a Forest Plan consideration as well as a project-level consideration. During the analysis of the 1997 Forest Plan Revision, the 2008 Forest Plan Amendment, and the 2016 Forest Plan Amendment, models (FORPLAN, Spectrum and Woodstock, respectively) were used to determine acreages and volumes to be harvested for the planning horizon. Adjustments, called Model Implementation Reduction Factors (MIRFs), were included in the Forest Plan modeling to attempt to estimate “falldown”. These adjustments are discussed in the 2016 Forest Plan Amendment FEIS, Volume II, and Appendix B. These constraints are designed to accommodate for unmapped unsuitable lands or lands needed to comply with Forest Plan direction, buffers for wildlife, unmapped streams, heritage sites, etc. Efforts were made to come up with the most accurate estimates possible at the Forest Plan level to reduce the amount of “falldown”. These constraints forced the model to never harvest a certain percentage of the acres in the model to mimic the amount of acres from the suitable land base that would not be actually harvested.

At the project level, the actual timber cruise provides the most-intensive estimate of volume, timber defect, and the species composition potentially available in the timber units. It is done when the Forest Service is configuring a timber sale for offer prior to putting out a bid package, in order to give potential purchasers the best information possible. The prospective timber purchaser is encouraged to conduct their own on-the-ground review prior to bidding.

### **Timber management: logging costs**

#### **Concern Statement:**

Some comments were received regarding the costs and timber volume estimates used for Issue 3: Timber Supply and Economics

#### **Forest Service Response:**

The volumes and acreages of potential harvest stands from the project LSTA displayed in the DEIS (pp. 98 to 100) quantify those restraints that can be estimated at this time. Some restraints on the available commercial timber volume and acreage available will not be fully know until implementation. It is assumed all alternatives will have the same Forest Plan constraints on timber volume and acreage. Further constraints for Alternatives 3 and 5 are estimated in Table 13 for old-growth (p. 99) and Table 15 for young-growth (p. 100). The DEIS uses the best estimate available based on inventory, GIS analyses, and past projects for the volume and acreages available for the project.

The action alternatives analyzed have a range of constraints on timber volumes for various resource concerns. Alternative 2 has constraints on available timber that closely follow the constraints included in the Forest Plan One exception for Alternative 2 is the Old Growth Small Sales Strategy, which was developed to stabilize and insure timber volume is available for small local operator. Alternatives 3 and 5 each address resource concerns and potentially may place constraints on available timber to varying levels, beyond Forest Plan direction, to help address these resource concerns. These constraints are described in the Environmental Consequences portion of Issue 3 of the DEIS (pp. 97 and 98).

We have reviewed the spreadsheet attached by commenter. Each TAA does have its own factors that contribute or detract from the economics of potential timber offerings that may be available from that area. The TAAs were used as a tool to help analyze the Project Area’s timber economics on a more

site specific bases as a whole. The TAAs are not meant to be standalone divisions for the packaging of potential timber offers. Timber offers will be packaged to provide for a positive appraisal and may combine TAAs. During the implementation process for this project logging plans will be developed, refined, and strive to be economical. All timber sales offered must appraise positive in order to be offered in the Alaska Region.

The Prince of Wales Landscape Level Analysis Project FEIS, Appendix B, the Implementation Plan documents the process for implementation of the activities. This is meant to be a ‘living’ document and may need to be adjusted as we learn more through the implementation of each activity, in this case each timber contract offering. As offerings are designed, the process will likely be smoother and new technology or expertise may be used.

### **Timber management: old-growth management**

#### **Concern Statement:**

Many comments were received, mostly in form letters provided by organizations stating that they were either against logging in general or more specifically old-growth logging. Other commenters requested no old-growth logging on the Prince of Wales Landscape Level Project Area. The amount of old-growth harvest proposed for this project and concern about the amount of old-growth remaining were associated with this topic. Since many of the letters were unclear whether their concern was about logging in general or old-growth logging, this response will cover all aspects of these comments. Reasons for not wanting logging was to protect the other natural resources, such as watersheds and fisheries, wildlife habitat, and recreation and scenery, or to reduce factors contributing to climate change.

#### **Forest Service Response:**

The Forest Service was created in 1905 to provide a public supply of timber for the American people from “forest reserves” – timber-covered public domain land - that could not be developed into non-forested use. In time, the goals of the National Forests increased to provide management for all resources: water, range, wildlife habitat, extracted resources such as minerals, renewable resources such as timber, and recreation. Today, laws such as the TTRA, NFMA, ANILCA, and many others, as well as Executive Orders and regulations, guide timber harvest and other management on public lands (2016 Forest Plan Amendment ROD pp. 39-45).

The 2016 Forest Plan Amendment ROD pp. 13-37 discusses multiple-use considerations and laws guiding the Forest Plan decision, including timber harvest, the transition from old-growth harvest to primarily young-growth harvest, economic and market factors, and sustainability. The Forest Plan maintains the integrity of the Tongass Old-growth Habitat Conservation Strategy and provides for the diversity of plant and animal communities (*Id.* p. 20). Timber harvest – old-growth and young-growth – proposed in the Prince of Wales Landscape Level Analysis (POW LLA) Project is a necessary component of multiple-use management to meet goals and objectives outlined in the Forest Plan. Goals and objectives are outlined for each Forest Plan after environmental analysis and public involvement process is completed. Goals and objectives are then used to guide projects that will implement the Forest Plan. The goals and objectives for this project are explained in the POW LLA Project DEIS, pp. 5 through 6. The need for this project is also explained on POW LLA Project DEIS, pp. 6 and 7.

Projects proposed for various resources need to comply with the Forest Plan. Some projects, like timber harvest, may only occur in certain land use designations; see map on POW LLA Project DEIS,

## Appendix D

p. 10, and for a complete description the Forest Plan, Chapter 3. Old-growth timber harvest can only occur in primarily Timber Production, Modified Landscape, and Scenic Viewshed land use designations, with certain conditions allowing timber harvest in Scenic and Recreation River land use designations. Other restrictions to timber harvest also apply as outlined in the Forest Plan, Appendix A, especially for old-growth harvest, which is not allowed in those areas designated as Tongass 77 Value Comparison Units (VCUs) or The Nature Conservation/ Audubon Priority Conservation areas (see Map - [2016 Forest Plan Amendment FEIS, Alt. 5, Suitable Lands](#)). Additional restrictions for old-growth harvest are found in the Forest Plan Chapter 4, Standards and Guidelines. Old-growth harvest was proposed to some extent in all the alternatives analyzed in detail for the 2016 Forest Plan and was part of the decision, 2016 Forest Plan Amendment Record of Decision, pp. 6 and 29 through 31. The forested land where timber harvest is allowed is termed ‘suitable’.

The amount of old-growth proposed for harvest in the POW LLA Project DEIS varies by alternative for both old-growth and young-growth. These amounts are described in the POW LLA Project DEIS p. 37, Table 4. Roughly between 421 MMBF (Alternative 2) to 529 MMBF (Alternatives 3 and 5) of young-growth is proposed for harvest and at least 200 MMBF (Alternative 2), 115 MMBF (Alternative 3) and 75 MMBF (Alternative 5) is proposed for old-growth harvest, over the course of 15 years. Because of this, the local mills prefer Alternative 2 over Alternatives 3 and 5, since the present mills are configured for manufacturing old-growth logs into products rather than the smaller young-growth logs.

The current timber industry primarily harvests old-growth. The amount of old-growth timber proposed in Alternative 2 is in line with the past average yearly harvest from 2001 to 2017 which ranged from 20 MMBF a year to 57 MMBF. These dates are chosen since this period of time is after the harvest associated with the settlement agreement for the closure of the second long-term contract in 1997.

The amount of remaining old-growth was brought up as part of these comments. This old-growth timber volume proposed for harvest is only located on the 48,140 acres identified as potentially suitable for timber harvest, DEIS, p. 20, Table 2) and not the entire 814,912 acres of productive old-growth (POG) within the POW LLA Project Area. Suitability is determined from the criteria in the Forest Plan, Appendix A. For Alternative 2, about 23,269 acres would be needed to achieve the above amount of harvest; for Alternative 3, 13,014 acres, and for Alternative 5, 6,365 acres. This is 48 percent, 27 percent or 13 percent, respectively. However, this is just the amount of the suitable POG acres.

As mentioned above, there are many areas where timber harvest is not allowed or not ‘suitable’. These areas were not included in the analysis of suitable timber in the Forest Plan Amendment nor for this project. The POG within the POW LLA Project Area totals 814,912 acres (DEIS, p. 161) or 82 percent of the historical POG. The year 1954 is used since that is when large-scale timber harvest with the long-term contracts began. That means that about 2.8 percent of the old-growth within the Project Area is proposed for harvest in Alternative 2, the alternative with the most old-growth harvest. This leaves 791,643 acres of old-growth remaining within the Project Area. On the Tongass, some areas would not experience old-growth harvest at all, such as Karta River Wilderness. For a complete assessment of the old-growth planned to remain after 100 years under the current Forest Plan, see 2016 Forest Plan Amendment, Table 3.9-12. Forest-wide POG remaining would be 5.4 million acres after 100 years of management or 91 percent of the 1954 POG.

Whether to log old-growth and the amount of old-growth that could be offered is one of the decisions to be made by the Responsible Official for this project (POW LLA Project DEIS, p. 8) with the exception of personal-use sawtimber (10 MBF/person annually) and firewood (25 cords/ person

annually) as allowed by 36 CFR 223.10 - Free use to Alaskan settlers, miners, residents, and prospectors. This free use will continue to occur regardless of the decision on this project. Section 101 of the TTRA amended the ANILCA timber supply mandate and fixed budget appropriations and replaced those with the following text in Section 705 (a):

“Sec. 705. (a) Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act of 1976 (P.L. 94-588); except as provided in subsection (d) of this section, the Secretary shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the annual market demand from such forest for each planning cycle.”

Until the industry has time and economic capability to transition as expected by the 2016 Forest Plan Amendment decision, most of the industry is dependent on old-growth timber since the mills are configured to manufacture that product and not smaller-dimension logs. The installation of a facility for efficient manufacture of young-growth timber is a huge financial undertaking and currently without a sustained steady supply of young-growth that may not occur until after the life of this project (see Forest Plan Amendment FEIS, pp. 3-507 to 3-509). Currently, most of the market for young-growth timber is for export because of the size of logs. Retaining the remaining existing mills on POW is important to the timber industry’s long-term survival and contribution to the economy of POW. A lesser amount of old-growth timber such as proposed by Alternatives 3 and 5 may result the closure of mills in Southeast Alaska. The Proposed Action of the POW LLA Project proposes a timeframe of 15 years to transition from primarily old-growth harvest to primarily young-growth harvest to achieve this goal. The other alternatives propose a shorter timeframe with Alternative 5 proposing an almost immediate transition by including less old-growth harvest.

### **Timber management: transition to young–growth management**

#### **Concern Statement:**

Commenters request that the POW LLA Project transition out of industrial-scale old-growth timber sales and only harvest old-growth for a combination of habitat preservation, small-mill use, and high-value purposes. Questions arose about the Forest Service’s commitment to transition to young-growth management.

#### **Forest Service Response:**

Each of the action alternatives addresses the 2016 Forest Plan ROD direction to transition from predominately old-growth harvest to predominately young-growth harvest (Forest Plan ROD, page 7). The Forest Plan allows for harvest of old-growth for reasons other than habitat preservation, small mills, and high value purposes. The alternatives are designed to transition to predominantly young-growth harvest. In Alternatives 2 and 3, years 1 through 5 have a greater harvest of old growth than young growth, and in years 6 through 10, old-growth harvest is reduced and young-growth harvest increases. Alternative 5 maintains an average annual old-growth harvest of 5 MMBF for the length of the project with young-growth harvest increasing through time (DEIS, page 37). This transition to predominately young-growth harvest meets the 2016 Forest Plan direction.

See also response to Silviculture: Young-growth Management.

## Appendix D

### **Timber management: old-growth small sale strategy**

#### **Concern Statement:**

Some comments were received that supported only a timber industry designed to support the very small local mills. Suggestions on the size of sales and how to strengthen the small-sale strategy were also offered. A commenter proposed that the amount should be increased to be used only for small sales to 100%.

#### **Forest Service Response:**

One of the alternatives that was considered but eliminated from detailed study did include support for a small purchasers and cottage industry only; this alternative was eliminated because the activities fall within the range of alternatives that were considered. Alternative 5 focused on providing an average annual amount of 5 MMBF of old-growth timber to respond to scoping comments and to provide a range of alternatives. In contrast, Alternative 2 and to some extent, Alternative 3 would attempt to provide more volume that would be suitable for larger offerings as well as small sales. The majority of small mills are on Prince of Wales Island and the Responsible Official decided that a strategy that provides sales less than 3 MMBF would help support these operators. The Old-Growth Small Sale Strategy included in Alternatives 2 and 3 is designed to ensure offers of sales generally less than 3 MMBF. This strategy strives to allow offers to better align with the capabilities of the Project Area's smaller operators. Sales would be of a variety of sizes to accommodate the range of volume that would be attractive and manageable to small mill operators. The DEIS (p. 33) discusses an alternative considered, but not analyzed in detail, that would have limited offers to small sales only. 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. If and at what level a small sale strategy is implemented for this project will be discussed in the decision for this project.

### **Timber management: size of small sales**

#### **Concern Statement:**

Several people discussed what is considered the size of a small sale and disagreed with the Forest Plan definition.

#### **Forest Service Response:**

The definition of a small sale varies in opinion to a wide variety of people. The POW LLA Project will not redefine the size of a small sale from the Forest Plan. However, this does not mean that all small sales will be the same size. The purpose of this project is to provide a variety of sales which may involve one tree, a sale of 2 MMBF as suggested by a commenter, or a much larger sale, to meet market conditions and industry demand (DEIS p. 107-109). Even small operators sometimes prefer to buy a larger sale that will provide them with multiple years of wood rather than constantly bid on sales every year. The idea of offering individual units as small sales to maximize the number of sales is also not the best practice. It is better to offer the size of sales that may be the most in line with the potential purchasers, both on and off Prince of Wales Island. A 'right sized' timber contract is better than several small sales to make up the same amount of volume since each contract involves bid guarantees, bonds and other outlays of money upfront.

### **Timber management: stewardship contracts**

#### **Concern Statement:**

Some comments were received requesting either to use the stewardship contracting authority or not use it unless it is a service contract and timber harvest is not included.

#### **Forest Service Response:**

Stewardship contracts are only one tool used to complete restoration activities at implementation. It is not part of environmental analysis, and whether to use stewardship contracts for a particular size or type of timber contract or other resource contract will not be part of the decision on this document (FSH 2409.19, section 61.1.g).

There are two types of stewardship contracts briefly explained here. An Integrated Resource Timber Contract (IRTC) uses the money from timber receipts to complete other projects which maintain or improve a resource, such as watershed condition or wildlife or fish habitat. IRTC are used when they represent an advantage over other methods of contracts since they can provide a funding source for projects from timber receipts. If the cost of the project exceeds the value of the timber, an Integrated Resource Service Contract (IRSC) can be used, but must have appropriated funds or funds from other sources. Other tools may include partnerships with other organizations or agencies. FSH 2409.19, Section 61.2, Exhibit 1 displays a flowchart to help determine whether a stewardship contract is beneficial for a particular project. The decision to offer a contract as stewardship is usually made with participation from adjacent landowners and the public. The decision to use an IRTC is made at the time of completion of the timber contract and is dependent, in part, on the value of the timber, the location of any restoration projects, and the size of the planned sales. Stewardship contracts may provide a variety of jobs outside those needed for timber harvest and transport. This may provide other opportunities for sub-contracting this work for activities like trail building or instream work. Very small sales may not be optimum for stewardship contracts for either the purchaser or Forest Service, and may not be successful in obtaining the desired results. Stewardship contracts may include different activities that involve different equipment or technical skills not associated with timber harvest and not readily available for an operator. This may either constitute a hardship or a benefit by subcontracting these activities out to those who do have these skills such as trail-building increasing the diversity for employment.

### **Timber management: young-growth contracts**

#### **Concern Statement:**

Comments were received on various aspects of timber contracts, including whether there has been any commercial thinning contracts for young-growth that have generated revenue/receipts.

#### **Forest Service Response:**

There have been several young-growth timber harvest contracts – one on Heceta Island that has been completed, two on Prince of Wales Island near Dargon Point, and one on Kosciusko Island which has not started operations yet. Another young-growth contract is slated to be offered on Gravina Island in September 2018. Information from these operations will be used to develop cost information and improve implementation guidance for future contracts.

## Appendix D

### Timber management: log export

#### Concern Statement:

There is a lack of transparency and public availability of information about the Tongass log export program, the proportion of Tongass harvest that is exported as logs. Many commenters expressed opposition to the Alaska Region's log export policy in general.

#### Forest Service Response:

Comments about the Alaska Region's limited export policy were included in objections to the decision on the 2016 Tongass Plan Amendment. This issue was responded to at that time and is outside the scope of a project-level NEPA analysis (2016 Tongass Plan Amendment (see pp. 138-141 of that response)). Also the 2016 Tongass Plan Amendment FEIS, Appendix H describes the history of export in Alaska including the Limited Export Policy plus the effects of the policy on the Tongass.

Based on the Regional Forester's review of the Tongass Plan Amendment record in response to the objections on the Amendment, the limited export policy was found to be consistent with applicable law and regulation. The Amended Plan and the export policy are programmatic decisions which neither authorize nor compel any action. The effects of the export policy on employment has been reasonably evaluated and displayed in the Plan Amendment FEIS, and these employment estimates will be useful as site-specific projects are proposed to evaluate alternatives and their contributions to local industry. The case-by-case consideration of additional export is consistent with the expressed authority granted the Regional Forester in 36 CFR § 223.201.

Export is not required on any particular timber sale offer; the export policy itself neither compels nor authorizes export for an operator. Rather, the objective of the export allowance is to facilitate the purchasers' participation in global timber markets and provide access to the most advantageous markets for their products, which provides flexibility for the operator.

Log export data for years 2001 through 2017 are available to the public on the Alaska Region website under Land Use Management/Resource Management /Forest Management Reports and Accomplishments page: ([https://www.fs.usda.gov/detail/r10/landmanagement/resourcemanagement/?cid=fsbdev2\\_038785](https://www.fs.usda.gov/detail/r10/landmanagement/resourcemanagement/?cid=fsbdev2_038785)) and have been placed in the Project Record. The amount of export in the future may or may not follow past practices due to purchaser's decisions, markets, and species composition of future timber contracts. In response to this comment, we have added clarifying information about the proportion of Tongass harvest that has been exported in log form over time to the FEIS.

### Timber management: export of western redcedar

#### Concern Statement:

One commenter requested information about the methods used to determine whether western redcedar can be exported.

#### Forest Service Response:

Several contract provisions come into consideration depending whether western redcedar was appraised for domestic processing or appraised for export. Basically, the purchaser must obtain written information from three processors (or attempt to do so) that, first, the western redcedar is surplus to Alaska domestic needs, which would allow the redcedar to be exported to the contiguous 48 states. If it is also surplus to needs in the United States, then it can be allowed for foreign export.

See contract provisions R10-C (T) 4.132#, 2400-6(T). An application to the Regional Forester is required, who will decide whether to approve the permit.

### **Timber management: no old-growth logging north of the 20 road**

#### **Concern Statement:**

Some comments were received in favor of the proposal to limit harvest north of the “20 Road” including the area around the communities of Port Protection and Point Baker.

#### **Forest Service Response:**

The North of the 20 Road is the area “...bounded by the National Forest System road (NFSR) 2000000 to the south, saltwater to the north, the communities of Point Baker and Port Protection to the west, and western shoreline of Red Bay to the east.” See Commercial Vegetation map online at <http://www.fs.usda.gov/goto/tongass/powlla>.

The area North of the 20 Road was given consideration in two of the three action alternatives based on comments received during scoping. Alternative 3 would allow only sales up to 3 MMBF in this area. Alternative 5 does not allow any old-growth harvest North of the 20 road. Personal use sawtimber and firewood would be allowed under both alternatives and microsals would be allowed under Alternative 3, but not Alternative 5. Alternative 2 would allow larger old-growth sales in this area. Whether old-growth logging will be allowed North of the 20 Road will be considered by the Responsible Official in the decision on this project. Whether old-growth logging will be allowed North of the 20 Road will be considered by the Responsible Official in the decision on this project.

### **Timber management: No old-growth logging**

#### **Concern Statement:**

Commenters support the no action alternative or express general disapproval for logging old-growth forests.

#### **Forest Service Response:**

The Forest Service is under national direction to provide for multiple uses of the national forests (Organic Administration Act of 1897, Multiple-Use Sustained Yield Act of 1960, and the NFMA of 1976). The Multiple-Use Sustained-Yield Act of 1960 directs that national forests be managed under principles of multiple use and produce a sustained yield of products and services. The POW LLA Project seeks to meet multiple resource objectives through an integrated approach to improve forest ecosystem health on the Thorne Bay and Craig Ranger Districts, support community resiliency, and provide economic development, consistent with the multiple-use goals and objectives of the 2016 Plan. The purpose of the POW LLA Project is to respond to the Forest Plan’s multiple-use goals and objectives, while moving the Project Area toward the desired conditions established in the 2016 Forest Plan (USDA Forest Service 2016a, p. 2-1). Specific goals and objectives of the project are consistent with the 2016 Forest Plan and are listed on page 8 of the POW LLA Project DEIS. The underlying need for the POW LLA Project comes partly to satisfy 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, and to restore and improve forest resources to a condition where they provide increased benefits to society.

## Appendix D

### Market demand

#### Concern Statement:

Commenters expressed renewed concern about the long-term timber market demand projections in Daniels *et al.* 2016 and how they influence annual timber harvest levels on the Tongass. Commenters argue the demand estimates are both too high and too low. Comments were germane to both the long-term demand estimates in Daniels *et al.* and the Morse methodology used to compute annual timber demand estimates.

#### Forest Service Response:

The record of past decisions on this issue is voluminous, with both topics covered extensively in the 2016 Forest Plan DEIS, FEIS, and ROD, the reviewing officer's response to eligible objections to the 2016 Forest Plan, and the DEIS for the POW LLA Project. Most comments are a restatement of disagreement with the findings of the long-term market demand study and how they are used to estimate annual timber demand from the Tongass.

Market demand projections by Daniels *et al.* (2016) have been discussed at length in prior decision documents. Although commenters may not agree with the findings, the demand study was performed using the most current forest sector data at the time and went through two rounds of peer review. Predicting the future based on current data is difficult and uncertainty of the estimates was discussed transparently throughout the published report. The reviewing officer's response to eligible objections to the 2016 Forest Plan ([https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd526033.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd526033.pdf)), addresses both long-term and annual demand calculations.

The methodology for calculating annual timber demand has also been examined extensively. The ROD for the 2016 Forest Plan discusses the Morse Methodology, which incorporates these derived demand projections into an annual calculation of timber sale offer levels. Long-term demand is one of several inputs into annual demand calculations. The FEIS [Volume II, Appendix G] of the 2016 Forest Plan discloses the information and process for meeting the Tongass Timber Reform Act's seek to meet provision, using both PNW's planning cycle demand projections and the Morse Methodology. Furthermore, *Tongass National Forest: Forest Plan Amendment, Projected Timber Demand, and Decision Points* [Grewe, 2016, PR #769\_01172] further discloses how the Forest used the PNW data, analysis, and results in the Plan Amendment planning process and decision-making.

### Economics: export markets

#### Concern Statement:

Commenter disagrees with statement in DEIS that demand for Southeast Alaska sawn wood products in export markets continues to be relatively low, while exports of softwood logs have remained strong.

#### Forest Service Response:

Trends in international markets for Southeast Alaska logs and lumber are discussed in the Daniels *et al.* (2016) long-term timber demand analysis. Projected demand in each Southeast Alaska forest product market is provided in Table 10 (page 33). The Daniels *et al.* analysis was incorporated into the 2016 Forest Plan, and is outside the scope of the project-level NEPA analysis performed for the POW LLA Project.

### **Economics: subsidy of timber industry**

#### **Concern Statement:**

POW LLA Project subsidizes old-growth logging and prioritizes the SEAK timber industry over other resource dependent industries.

#### **Forest Service Response:**

The Purpose and Need for the POW LLA Project are consistent with the 2016 Forest Plan and rooted in 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, and to restore and improve forest resources to a condition where they provide increased benefits to society (Tongass Timber Reform Act, Section 101). With the exception of Alternative 1, all alternatives are designed to achieve the Purpose and Need for the POW LLA Project, to varying degrees. All action alternatives, including the Proposed Action, are consistent with the Forest Plan. All applicable Forest Plan direction has been incorporated into the design of the project alternatives. For small communities on Prince of Wales, every job is important and a diversity of types of jobs is also important. In the socioeconomic analysis of POW LLA Project alternatives, jobs in timber are weighted equally with jobs in other resource dependent industries. The proportion of employment by industry was considered in the POW LLA Project DEIS and appear in Table 73. See chapter 3 for effects on other resources.

### **Wildlife: National Forest Management Act/National Environmental Protection Act**

#### **Concern Statement:**

Concern that implementation of POW LLA Project is "arbitrary, capricious," has committed an abuse of discretion, and has violated the MUSYA Sec. 4. By the hazarding the risk of pack depletion in numerous Wildlife Analysis Areas and may lead to an elevated risk of extirpating the Alexander Archipelago wolf from Prince of Wales Island and would violate the Multiple Use and Sustained Yield Act of 1961, ANILCA, the NFMA (which prohibits Forest Supervisors from managing in a manner that would cause MIS species to trend toward extirpation), and the National Environmental Policy Act by impairing the productivity of the land to sustain Management Indicator Species such as black bear, Sitka black-tailed deer and the Alexander Archipelago wolf.

The DEIS fails to explain why the Forest Service believes the Prince of Wales Project is consistent with the NFMA and the 2016 Amended Forest Plan. The Prince of Wales DEIS fails to provide any project-level analysis with regard to wolves and deer because the agency is not disclosing any details of the anticipated timber sales and road construction activities (e.g., temporal, spatial, volumes, sequence, etc.).

#### **Forest Service Response:**

The POW LLA Project is neither "arbitrary" nor "capricious." Under the Multiple-Use Sustained Yield Act and the NFMA, all renewable resources are to be managed so that they are available for future generations. By meeting Forest Plan direction, as discussed in Chapter 1 of the FEIS, this project meets the requirements of the Multiple-Use Sustained-Yield Act and the NFMA (also see FEIS Chapter 3, Short-term Use and Long-term Productivity). Effects of the alternatives on black bear, wolves, and deer habitat are discussed in the DEIS and FEIS under Issue 2: Subsistence and under Issue 5: Wildlife Habitat.

## Appendix D

The NFMA, as interpreted in the context of the Tongass Forest Plan Conservation Strategy, directs the Forest to manage wildlife habitat to maintain viable and well-distributed populations to ensure continued existence in the planning area. Quantitative criteria for viability are not specified by the NFMA or associated regulations. For this analysis, the evaluation of viability includes considerations of the island archipelago environment as well as the best available science related to each species. (2016 Forest Plan FEIS 2016 p. 3-252).

See also response to comment Wildlife: Alexander Archipelago wolf, and Wildlife: Sitka black-tailed deer, below.

### **Wildlife: Queen Charlotte Goshawk**

#### **Concern Statement:**

DEIS wholly fails to disclose or examine the serious risks to goshawks and the analysis of Queen Charlotte goshawks is arbitrary and unlawful. The Queen Charlotte Goshawk is a Region 10 sensitive species and the Forest Service must maintain viable populations and habitat distributed across the Project Area to avoid federal listing. 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. A concern was also raised about the failure to conduct any site-specific analysis. In assessing cumulative impacts, the DEIS fails to consider the impacts caused by the significant changes in the 2016 Amended Forest Plan.

The DEIS does not provide a meaningful analysis of three critical spatial components of the nesting, post-fledging area (PFA), and foraging area in relation to cumulative effects and the Forest Plan.

The analysis failed to consider the additional risks associated with logging recovering second growth forests that the agency was aware or soon will be old enough to provide nesting habitat. Further analysis is needed to analyze habitat loss for QCGs at a finer scale and in areas at-risk of further habitat loss.

#### **Forest Service Response:**

Risks to goshawks associated with changes to habitat are analyzed in the Biological Evaluation (BE) and available in the Project Record. The FEIS provides a summary of that analysis in Issue 5: Wildlife Habitat. The determination in the BE for goshawk is “may effect.” This finding took into account habitat needs, proposed management activities, and Forest Plan direction for goshawks. The Forest Plan BE found that direct, indirect and cumulative effects to the goshawk from any Forest Plan alternatives may affect the goshawk but that none of the impacts are expected to rise to levels that would decrease viability or lead towards an ESA listing under any of the alternatives. Taken together with other past, present, and reasonably foreseeable activities and disturbances, all Forest Plan alternatives would have minor to moderate cumulative effects on this species but would not compromise the integrity of the conservation strategy for this species (Forest Plan Biological Evaluation p. 24).

The concern that the impacts caused by changes in the 2016 Amended Forest Plan compromise fundamental elements of the goshawk conservation strategy is referring to changes in young-growth harvest in the beach buffer, old-growth reserves and riparian management areas because mature forest with structure suitable for goshawk nesting and foraging may develop as early as 45 to 50 years following harvest on the most productive sites in the southern portion of the Queen Charlotte goshawk’s range (Doyle 2004, pp. 27–28; McClaren 2003a, p. 19) and mature second growth forests provide productive habitat for prey species in a setting where goshawks can effectively hunt. The

young-growth proposed for harvest (Activity Cards 03 and 14) in the Beach Fringe, riparian management areas, and old-growth reserves should accelerate those stands toward old-growth conditions (DC-YG-BEACH-01, DC-YG-RIP- 01, and DC-YG-WILD-01; 2016 Forest Plan p. 5-5, 5-6 and 5-8). Forest Plan standards in these areas allow for a one-time entry with a maximum of 10 acre openings and a maximum of 35 percent of the acres or basal area to be removed; these are the upper limits and it is unknown how often these maximums would meet the stated desired conditions. Project decisions will have to disclose how they meet plan components, including desired conditions. In addition, within old-growth reserves, young-growth treatments should emulate the natural scale and distribution of natural disturbance patterns (DC-YG-WILD-02; Forest Plan p. 5-8).

In response to the comment that the DEIS does not provide a meaningful analysis of three critical spatial components of the nesting, PFA, and foraging area in relation to cumulative effects and the Forest Plan information on post-fledging areas and foraging habitat is now included in the BE.

Site-specific goshawk surveys are conducted according to the approved Tongass protocol.

Opposing viewpoints on the ability of the Tongass Conservation Strategy to provide habitat for goshawks has been added to the BE.

### **Wildlife: Alexander Archipelago Wolf**

#### **Concern Statement:**

The decision that the Prince of Wales Project will have only moderate effects on wolves is unsubstantiated and arbitrary. The Forest Service fails to obtain local knowledge of habitat conditions and spatial habitat location, instead of relying solely on model outputs. It does not state how far the Project Area and its individual wildlife analysis areas will fall below the deer habitat capability of 18 deer per square mile guideline. The Forest Service agency must conduct a meaningful analysis of the impacts of the Project on wolves, including the likelihood of maintaining sustainable wolf packs on Prince of Wales, the Forest Service fails to take the requisite “hard look” on the cumulative effects of legal and illegal wolf harvest on Prince of Wales Island, and the how the proposed project fulfills the agency’s obligation under the NFMA to ensure viability of the wolf.

POW LLA Project fails to analyze the density of deer for each of the wildlife assessment areas, biogeographic provinces, and Prince of Wales Island as whole are capable of sustaining per square mile and what densities the agency expects those areas will be able to support after the Project is implemented. The Forest Service’s use of “condition-based NEPA” fails to account for local knowledge of habitat conditions or spatial location of that habitat, because the agency is not saying where the logging and road building will take place.

The Forest Service must address the decline in deer winter habitat and wolves on POW. More than “deer habitat capability” is necessary to capture the effects of timber management on wolves. The Interagency Wolf Habitat Management Plan has deficiencies and thinning does not enhance habitat for wolves. Instead of following the 2016 Amended Forest Plan, the DEIS relies on the unsubstantiated assertion that so long as 20 to 50 percent of habitat remains, then sufficient deer habitat will remain for deer and wolves.

Wolves inhabiting Prince of Wales Island are genetically isolated from other populations in Southeast Alaska (Person 2001; Weckworth *et al.* 2005, 2010, 2011). Over 80 percent of wolf mortality on Prince of Wales Island is human caused. Forest Service’s management target for wolves is apparently minimum viable populations. It allows road densities to reach known critical levels before

## Appendix D

conservation measures are considered, and allows deer habitat capability in some wildlife analysis areas to fall below recommended minimums required by wolves.

### Forest Service Response:

The POW LLA Project finding that the overall effects to wolves on POW would be moderate is based on the effects to deer habitat in most wildlife analysis areas as well as road densities in most wildlife analysis areas. The effects to deer habitat and road densities by wildlife analysis area (WAA) are shown in the POW LLA Project FEIS.

While it is true that the wolf population on Prince of Wales has declined since the 1990s, in recent years the population has shown an increase. According to the Alaska Department of Fish and Game (ADF&G) about 231 wolves inhabited Prince of Wales and surrounding smaller islands in the fall of 2017 (cited by Rainforest Defenders). An ADF&G memorandum to Ryan Scott, Regional Supervisor Division of Wildlife Conservation, from Gretchen Roffler, Research Biologist, concerning the GMU 2 wolf population estimate shows this population estimate was for fall 2016 and not 2017 (Table D-3, below).

**Table D-3: Autumn 2016 wolf population estimate and 95% confidence intervals (CIs) 2013–2016 for Game Management Unit 2.\***

Year	Population estimate	95% CIs
2013	221	130–378
2014	89	50–159
2015	108	69–167
2016	231	192–285

\*From September 20, 2017 ADF&G Memo on Draft GMU 2 Wolf Population Update

The USFWS in the Federal Register determined that only one population, the population in GMU 2, of the Alexander Archipelago wolf has declined and likely will continue to decline. USFWS determined that this population contributes little to the taxon as a whole, and, therefore, while acknowledging the vulnerability of this population to stressors such as timber harvest and wolf harvest, the USFWS found that its status does not significantly affect the range-wide status. Therefore, based on the review of the best available scientific and commercial information, the USFWS found that the threats from stressors such as timber harvest and wolf harvest are not of sufficient imminence, intensity, or magnitude to indicate that the Alexander Archipelago wolf is in danger of extinction (endangered), or likely to become endangered within the foreseeable future (threatened), throughout all of its range.

The ADF&G position has been that while there may be vulnerabilities for wolves in some parts of Unit 2 (Person *et al.* 1996, Person *et al.* 2001, Person and Russell 2008, Person and Logan 2012), wolves are viable (not threatened with extinction) in Unit 2 and across their historical range in Southeast Alaska (Porter, B. 2018. Wolf management report and plan, Game Management Unit 2: Report period 1 July 2010–30 June 2015, and plan period 1 July 2015–30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2018-10, Juneau).

Wolf mortality concerns and the risk to wolves on POW are acknowledged in the DEIS. The wildlife analysis areas in the POW LLA Project were ranked according to the road density and the mortality due to wolf harvest as defined in Person and Logan 2012. The risk to wolves as defined by Person

and Logan 2012 in relation to wolf harvest is acknowledged in the DEIS. The effects of the estimated illegal take are acknowledged in the DEIS p. 208-209.

In response to the comment that wolves inhabiting Prince of Wales Island are genetically isolated from other populations in Southeast Alaska, the USFWS determined that the subspecific identity, if any, of wolves in southeastern Alaska and coastal British Columbia remains unresolved (Federal Register /Vol. 81, No. 3/Wednesday, January 6, 2016/Proposed Rules) and is outside the scope of this analysis.

Additional information has also been added to the FEIS summarizing the findings of the recent U.S. Fish and Wildlife wolf status assessment (USFWS Species Status Assessment for the Alexander Archipelago Wolf (*Canis lupus ligoni*) U.S. Fish and Wildlife Service Region 7, Alaska November 23, 2015, and the Federal Register /Vol. 81, No. 3 /Wednesday, January 6, 2016 / Proposed Rules.

The *Interagency Wolf Habitat Management Program: Recommendations for Game Management Unit 2* is implemented in whole in Alternative 5 and partially in Alternative 3. Alternative 2 meets Forest Service standards and guidelines that includes thinning younger young-growth stands, treatments that are included in the Wolf Habitat Management Program. Deficiencies in Wolf Habitat Management Program are beyond scope of this document. The DEIS does acknowledge the effects of thinning on deer habitat.

The Forest Plan includes a standard and guideline for den buffer on active den sites; all alternatives will at a minimum follow Forest Plan standards and guidelines. The increased wolf den buffers in Alternatives 3 and 5 are the buffers recommended in DRAFT den analysis (ADF&G Preliminary wolf buffer analysis 8/23/2017).

The Forest Plan includes direction 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 (Forest Plan Chapter 4 p. 4-91). 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. See Issue 5 in FEIS for more information on habitat thresholds.

### **Wildlife: Sitka Black-tailed Deer**

#### **Concern Statement:**

Comments were made that logging on Prince of Wales has had a major impact on deer populations. Some commenters requested that the Forest Service develop a research plan for looking at deer populations, and to evaluate and consider impacts of harvest on remaining stands of old-growth timber that represents winter habitat for deer weigh future old-growth harvest levels based on deer winter population needs. Commenters also requested that the Forest Service develop a model for making decisions on harvest of remaining winter habitat and its trade-offs for deer, and develop a long-term plan for habitat improvement or restoration for deer populations that focuses on young-growth timber stands and habitat improvements especially in winter habitat. Commenters also mentioned that the DEIS failed to address consequences of high grading on deer. A comment was made that the POW LLA Project needs to be consistent with how winter habitat is defined.

Comments were made that conclusion that in terms of the percent of deer habitat capability retained are meaningless. Comments were made that with the full implementation of the 2016 Amended Forest Plan there would be relatively minor changes in remaining habitat fails to account for the decades of logging that have taken place on Prince of Wales and the effects of stem exclusion on the habitat and

## Appendix D

wildlife of Prince of Wales. POW LLA Project fails to analyze the density of deer each of the wildlife assessment areas, biogeographic provinces, and Prince of Wales Island as whole are capable of sustaining per square mile and what densities the agency expects those areas will be able to support after the Project is implemented.

The Forest Service's focus on forage in clearcuts arbitrarily fails to address key winter habitat needs. Prince of Wales Island deer are susceptible to both wolves and occasional winter die-offs, the Forest Service's failure to plan for long-term winter range needs presents serious species-specific risks that the DEIS fails to disclose or analyze. Forest management increases the risks of reducing Sitka black-tail deer populations below traditional harvest levels (Schoen and Kirchhoff 1990. Seasonal habitat use by Sitka black-tailed deer on Admiralty Island, Alaska. *Journal of Wildlife Management*. 54:371-378).

Commenters were concerned that the impacts of the roads on Prince of Wales Island will also affect species like the wolf and it is likely that there will be future challenges in maintaining the natural predator-prey dynamics within this system (Person and Brinkman 2013). Some commenters felt that keeping wolf populations under control will also help maintain high deer populations.

### Forest Service Response:

The DEIS accounted for the decades of logging that have taken place on Prince of Wales and the effects of stem exclusion on the habitat and wildlife of Prince of Wales. The effects of logging on deer are discussed in the POW LLA Project DEIS. The effects of past harvest are included in the estimated current deer habitat capability (DHC). The DEIS includes tables that show the estimated DHC in 1954 (prior to logging) and the current DHC as well as the percent decline between 1954 and current. The cumulative effects of the POW LLA Project and other reasonable foreseeable activities are included. The cumulative effects to deer habitat on lands in other ownership are also included in the EIS because the deer model assumes all lands in other ownership to provide no habitat for deer.

While the POW LLA Project does include the positive effects of moving stands in the stem exclusion stage back into stand initiation, it also includes the importance of deer winter range and the effects to that habitat. Alternatives 3 and 5 include specific mitigation measures to maintain or enhance deer winter range.

A research plan that looks at deer populations, evaluates and consider impacts of harvest on old-growth timber that represent winter habitat for deer, developing a model for making decisions on harvest of remaining winter habitat and its trade-offs for deer is beyond the scope of this document, as is a model for making decisions on harvest of remaining winter habitat and its trade-offs for deer, and developing a long-term plan for habitat improvement or restoration for deer populations that focuses on young-growth timber stands and habitat improvements, especially in winter habitat.

The Forest Service includes habitat improvements that focus on young-growth timber stands (see young-growth and Thinning).

The importance and loss of deep snow deer habitat is discussed in the EIS. Reducing the impacts to and maintaining the existing of deep snow deer habitat beyond the Forest Plan requirements are the focus of Alternatives 3 and 5 where treatments of young-growth in deep snow deer habitat specifically identified areas will focus on improving that habitat.

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.

The POW LLA Project DEIS includes the estimated effects to the DHC and hunting. ADF&G reported hunt data does not indicate that deer populations are below traditional harvest levels (Harper, P., and L. A. McCarthy, editors. 2015. Deer management report of survey-inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-3, Juneau).

Deer abundance appears to be stable or slowly increasing, likely in response to mild winters during this reporting period in conjunction with low wolf and bear numbers. Managers continue to monitor range conditions for signs of over-abundance, but for now deer populations in Unit 2 appear healthy. Much formerly productive deer habitat in Unit 2 will remain unproductive for many decades and the population will remain vulnerable to die-offs during winters with deep snow (Harper, P., and L. A. McCarthy, editors. 2015. Deer management report of survey-inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-3, Juneau).

Despite abundant deer, historically high harvests, and liberal seasons and bag limits, hunters from rural communities continue to comment on the inability to meet their subsistence needs. In some cases data from hunter reports substantiate those concerns. Among rural residents, there is a perception of increased hunting pressure. The number of hunters for this reporting period (2,468 and 2,459 in RY12 and RY13, respectively), are the highest in the last 10 years (RY02–RY11), and 22 percent higher than the 10-year average. The Access Travel Management Plan (ATM) by the USFS will close about 150 miles of existing roads to highway vehicles and convert an additional 222 miles from highway vehicle use to OHV use only (USDA 2009). Road closures may direct the same number of hunters into smaller areas, affirming the perception of increasingly crowded hunting conditions. In addition, as clearcuts regenerate, deer become less visible, fueling speculation that fewer deer are available for harvest. State and federal managers will continue to try to balance ADF&G's mission of wildlife conservation with the Federal Subsistence Board's mission to provide subsistence resources for rural residents under the ANILCA (Harper, P., and L. A. McCarthy, editors. 2015. Deer management report of survey-inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-3, Juneau).

Anecdotal accounts from hunters and public testimony during a multi-agency Unit 2 deer planning effort in 2005 (Unit 2 Deer Planning Subcommittee 2005) suggested that we probably continue to significantly underestimate the total number of deer harvested, because illegal and unreported harvest appear to be substantial. If that is the case, actual harvest may be more than double the harvest objective (Harper, P., and L. A. McCarthy, editors. 2015. Deer management report of survey-inventory activities 1 July 2012–30 June 2014. Alaska Department of Fish and Game, Species Management Report ADF&G/DWC/SMR-2015-3, Juneau).

The definition for deer winter range will be consistent in the FEIS.

The effects to deer habitat, including the most limiting habitat (deep snow winter) are analyzed in the POW LLA Project.

## Appendix D

### Wildlife: black bears

#### Concern Statement:

Comments were made that the Forest Service needs to take a hard look at the cumulative effects to black bears from past and future logging, especially in regards to bear dens (lack of buffers), and with the effects of past and future harvest of black bears.

DEIS fails to explain the agency's conclusions regarding bears.

The 2016 Amended Forest Plan requires that the Forest Service cooperate with various agencies to prevent bear habituation to human food and garbage, evaluate the need for additional protection of important foraging sites, manage human-bear interactions to limit mortality, and manage road use where bears are concentrated. The DEIS fails to meet these requirements. It does not address what measures would be taken to manage human-bear interactions or how roads in areas of bear concentration would be managed.

Forest Service has a history of not monitoring timber sales and obscuring actions like logging over bear dens and logging near and over denning wolves. The public has not been allowed to monitor areas that were subject to wind firmness, bear and wolf dens.

#### Forest Service Response:

The POW LLA Project includes cumulative effects to black bear habitat. Black bear den sites are generally in POG forest and the POW LLA Project includes analysis of estimated past, current and future POG acres. Cumulative effects to black bear habitat (POG) are included in the EIS as all lands in other ownership are assumed to provide no habitat for black bears. Past harvest is included in the effects to black bear habitat analysis. The Forest Plan assumes that the transition from old-growth harvest to young-growth harvest will be complete at the end of the POW LLA Project and therefore future harvest should have minimal effect to black bears.

While black bear den sites are usually found in old-growth forest, during the spring and summer season's bears will use a variety of habitats, including young clearcuts. Fish streams are important to bears in the late summer as they feed on salmon to build fat reserves for hibernation. Salmon streams receive protection in the Forest Plan. Inventoried roadless areas will also provide areas of undisturbed habitat for black bears. The Forest Plan provides old-growth no-harvest buffers along Class I, II, and III streams. The TTRA directs that no commercial timber harvest is allowed within a minimum of 100 feet horizontal distance either side of Class I streams and Class II streams that flow directly into a Class I stream.

The POW LLA Project also includes large and medium old-growth reserves. Large and medium old-growth reserves are not suitable for old-growth harvest. Small old-growth reserves may have up to 35 percent of the young-growth harvested (Forest Plan p. 5-5). Young-growth harvest in the small old-growth reserves must not exceed 10 acres and a maximum removal of up to 35 percent of the acres of the original harvested stand is allowed. Commercial thinning is limited to 33 percent of the stand's original basal area. A combination of the two treatments may be used, with no more than 35 percent of the total stand removed in either basal area and/or acres. The Forest Plan states that when young-growth harvest is proposed in the old-growth reserves, it is expected that the project IDT and an interagency review team (USDA Forest Service, U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game) would jointly work to determine by exchanging the young-growth for old-growth from adjacent landscapes outside the existing Old-growth Habitat LUD. Modifications to the old-growth reserves would use the interagency process and review criteria outlined in Appendix K

(Forest Plan p. 5-8); however, modifying an old-growth reserve (OGR) requires a Forest Plan amendment.

In young-growth stands that are currently in an even-aged condition, this method will create a multi-aged stand structure through a series of periodic entries (see Activity Cards 03 and 14). Under this system, single-tree and/or group selection prescriptions would be used with harvested openings generally 2 acres or less in size. Group selections would harvest no more than approximately 33 percent of the stand area during any entry and single-tree selections would retain least 50 percent of the existing tree basal area during each entry. In young-growth stands, tree selection may vary between basal area reduction, diameter-based designation, and removal of trees in small groups or in strips. Specifications for cut and leave trees in stands under uneven-aged management will be established during prescription development at implementation (see Forest Vegetation, Environmental Effects, Silvicultural Systems in the FEIS).

While past harvest of black bears on Prince of Wales may have exceeded sustainable levels, regulatory changes such as the Southern Southeast Islands Controlled Use Area (2009) and a draw hunt for non-guided non-residents have been implemented by ADF&G in 2012 to address these concerns and appear to be effectively bringing harvests back within sustainable levels. Higher quality hunts, with less crowded hunting conditions and more bears available have been reported since the implementation of the draw hunts (Black bear management report of survey-inventory activities 1 July 2010-30 June 2013 Patricia Harper and Laura A. McCarthy, editor).

As logging continues, and previously logged habitat is converted to young-growth forest, ADF&G anticipates reductions in the carrying capacity for Game Management Unit 2 bears (Black bear management report of survey-inventory activities 1 July 2010-30 June 2013 Patricia Harper and Laura A. McCarthy, editor).

The 2016 Amended Forest Plan standards discussed above that require the Forest Service cooperate with various agencies to prevent bear habituation to human food and garbage, evaluate the need for additional protection of important foraging sites, manage human-bear interactions to limit mortality, and manage road use where bears are concentrated are all specific to brown bears and not black bears and therefore are not acknowledged in the POW LLA Project.

The Forest Plan has no requirements for buffers on black bear dens; however, since dens are often a cavity in a tree the den trees can be protected under the reserve tree/cavity nesting standard and guideline which says to provide habitat for cavity-nesting wildlife species and is not specific to any type of wildlife.

The DEIS does address consequences of timber harvest on deer by addressing the effects to deer habitat capability.

The FEIS will be consistent with how winter habitat is defined.

### **Wildlife: endemics**

#### **Concern Statement:**

Comments were made that the Agency's overall approach to impacts on endemic species, including viability, is arbitrary and unlawful. The Forest Plan says to use existing information on the distribution of endemic mammals to assess project-level effects and if existing information is lacking, surveys for endemic mammals may be necessary prior to any project that proposes to substantially alter vegetative cover (road construction, timber harvest, etc.). The Forest Plan states that surveys are

## Appendix D

necessary only where information is lacking to assess project-level effects. The 2016 Amended Forest Plan requires project-level effects analysis for endemic terrestrial species, including analysis of impacts relative to distinctiveness of taxa, population status, and degree of isolation, island size, and habitat associations.

The functional connectivity of endemic small mammal habitat cannot be determined without spatially explicit information on landscape composition, landscape configuration, and movement capability of the intervening matrix (Smith *et al.* 2011). A “condition-based” NEPA project which is spatially neutral; that is, the specific locations and types and amounts of timber harvest will be determined during implementation (DEIS Summary, page I, lines 1- 4). Therefore, 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.

The DEIS fails to mention certain endemic species (such as vole and ermine) and it fails to provide a project-level analysis for all endemics. It indicates there is some threshold level of habitat required, but admits that level depends on each species’ individual dispersal capability and does not analyze those capabilities or the resulting impacts of the Project on those habitat needs for each species; such as the spruce grouse which has a dispersal distance of 1 mile and that the species strongly avoids young clearcut areas, but the DEIS does not indicate how this would be managed; the dispersal ability of Keen’s myotis would interact with the spatial position of different wildlife analysis areas, but the DEIS fails to analyze the resulting impacts.

### Forest Service Response:

The NFMA requires forest plans to “provide for the diversity of plant and animal communities based on the suitability and capability of the specific land area.” This is achieved through implementation of the Conservation Strategy and Forest Plan direction. The 2016 Forest Plan carries forward the Conservation Strategy first developed for the 1997 Forest Plan. The Conservation Strategy contains a goal of providing an abundance and distribution of habitats to sustain viable populations in the planning area (Tongass National Forest); therefore, the viability finding is not arbitrary nor unlawful. Species viability is determined at the scale of the Tongass National Forest and not individual projects. The 2016 Forest plan determined that the integrity of the Tongass Conservation Strategy would be maintained by all Forest Plan FEIS alternatives (see Forest Plan FEIS Appendix D, Forest-wide Standard and Guideline WILD1IIB and Appendix I p. I-26-30).

See Forest Plan FEIS Appendix D for discussion on the Conservation Strategy.

The Forest Service determined that additional or specific surveys for endemics were not needed for the POW LLA Project because, while it is likely that there will remain unknown populations of endemics that may occur on POW, or the outer islands, many hours of surveys have already been conducted in the Project Area. The Arctos website indicates that thousands of specimens have been collected or documented from POW and surrounding islands (<http://arctos.database.museum/SpecimenSearch.cfm>).

The primary cause of the response of species to habitat change is the loss of habitat. Species-level details such as movement, behavior, and life history traits show that responses vary by species. For rare species, the abundance of habitat appears to be more important than the configuration of habitat and changes appear to occur at lower levels of habitat loss for rare species, poor dispersers, and habitat specialists (With and Crist 1995). It appears that high-quality matrix habitat can mitigate some of the negative factors associated with limits in habitat loss. Spatial features of habitat loss appear to primarily affect poor dispersers and rare species at low levels of habitat loss (see Dykstra 2004).

Appendix D of the 2008 Forest Plan concluded that the endemic group would be more likely to have range distribution gaps or be restricted to refugia under Alternatives 5 and 11 proposed in the Forest Plan. These circumstances would increase the risk of extirpation as a result of isolation. The Prince of Wales Island flying squirrel was noted as one species that would likely only exist in refugia.

The Prince of Wales flying squirrel was considered the greatest viability concern among the endemic mammals that were specifically considered by the panels for the 1997 Forest Plan analysis. The 1997 Forest Plan Alternative 11 provided flying squirrel habitat features through its system of large and medium old-growth reserves interconnected with small reserves and matrix habitats. The 1997 Forest Plan thought that each large OGR should have the capability to support 100 or more northern flying squirrels, medium old-growth reserves to support more than 50 squirrels, and small old-growth reserves to support 20 to 40 squirrels. These individual populations should have the capability to persist over short to intermediate periods of time. Interactions among these populations through the matrix would allow them to function as a metapopulation conferring high probability of long-term persistence. Dispersal through the matrix was facilitated by the Beach Fringe and riparian habitat management areas, by the overall amount of old forest remaining in the matrix, and by additional measures prescribed under 1997 Forest Plan Alternative 11 to provide for connectivity. The 200,000-acre Honker Divide reserve designated on Prince of Wales Island, by itself, was expected to support a moderately large population of squirrels. Finally, implementation of mitigation measures for goshawk and marten on Prince of Wales Island was expected to result in the retention of structural features important to flying squirrels such as snags, logs, and large live trees.

Although the 1997 Forest Plan panel assessments do not directly address the alternatives evaluated in the 2016 Forest Plan EIS, the ability of the 2016 Forest Plan to continue to maintain viable, well-distributed wildlife populations can be assessed based on two related premises. First, it can be assumed that if the integrity of the Forest Plan Conservation Strategy is maintained, there is a high likelihood that the Forest Plan Amendment would continue to provide habitat sufficient to support viable well-distributed wildlife populations and therefore maintain the diversity of plant and animal communities. Second, if the Forest Plan Amendment maintains the key habitat factors identified as important to maintaining viability by the panel assessments for each species or species group, then there is a high likelihood that the 2016 Forest Plan would be at least as likely as previous Forest Plan to maintain viable, well-distributed populations of these species or species groups in the planning area. The 2016 Forest Plan determined that the integrity of the Tongass Conservation Strategy would be maintained by all Forest Plan FEIS alternatives (Forest Plan FEIS Appendix D and Forest-wide Standard and Guideline WILD1IIB). A detailed analysis of the Forest Plan Conservation Strategy, indicating that none of the alternatives would compromise its integrity, is included in Appendix D (Forest Plan p. 3-291 and 3-292). The background of the Conservation Strategy is discussed in detail in the 1997 Forest Plan Appendix N, the 2008 Forest Plan Appendix D and the 2016 Forest Plan Appendix D.

The functional connectivity of an area would be discussed at implementation and while it may be true that all the impacts to connectivity can be analyzed, an analysis of a “worst case scenario” can occur by assuming for direct and indirect effects that the entire proposed LSTA would be harvested by clearcut. The cumulative effects analysis assumed the clearcut harvest of all of the LSTA acres as well as all lands in other ownership not providing any habitat for endemics.

While it is true that not all endemics are mentioned in the POW LLA Project, species such as the Alexander Archipelago wolf, black bear, Prince of Wales Island flying squirrel and spruce grouse are as well as other species are included in the POW LLA Project analysis by default in the habitat analysis of the endemics discussed.

## Appendix D

Species habitat such as Spruce grouse and Keen's myotis habitat would be managed at the implementation stage where efforts would be made to minimize effects such as distance between habitats.

The habitat percentages are used in the POW LLA Project as a way to compare relative effects by both alternative and wildlife analysis areas.

The endemic ermine was added to the FEIS.

### **Wildlife: Prince of Wales ermine**

#### **Concern Statement:**

The Forest Service's Treatment of the Prince of Wales Ermine is arbitrary and unlawful. The POW LLA Project DEIS fails to even mention the Prince of Wales ermine and never discloses and analyzes the potential adverse consequences of the Prince of Wales Project on this endemic old-growth dependent species. Given the lack of analysis, the agency cannot approve the Project without acting arbitrarily and contrary to the 2016 Amended Forest Plan, the NFMA, and the other statutes governing timber sales.

Like the Prince of Wales flying squirrel, the Forest Service has never determined what constitutes a viable population of the Prince of Wales ermine on the Tongass. There is a lack of understanding of this endemic mammal (e.g., population estimates, distribution across the Tongass, quantity or quality of habitat that must remain to ensure viability).

#### **Forest Service Response:**

The effects to potential ermine habitat are analyzed under general POG analysis in the POW LLA Project. The ADF&G species summary page indicates that the ermine is adapted to a wide variety of habitats but seem to prefer wooded areas with thick understory near water ([http://aknhp.uaa.alaska.edu/species\\_summary\\_reports/pdfs/105.pdf](http://aknhp.uaa.alaska.edu/species_summary_reports/pdfs/105.pdf)). While ermine are most often found within 100 meters of a water body, including the ocean; they have also been were trapped in second-growth forest with no particular reliance on old-growth forest (Reid 2000). The Forest Plan provides protection to old-growth no-harvest buffers along Class I, II, and III streams (wooded areas near water). The TTRA directs that no commercial timber harvest is allowed within a minimum of 100 feet horizontal distance either side of Class I streams and Class II streams that flow directly into a Class I stream.

The NFMA requires forest plans to "provide for the diversity of plant and animal communities based on the suitability and capability of the specific land area." This is achieved through implementation of the Conservation Strategy and Forest Plan direction (see Appendix D of the Forest Plan FEIS).

The Conservation Strategy, when it was developed for the 1997 Forest Plan, included analysis on endemic populations (1997 Forest Plan Appendix N, 2008 Forest Plan Appendix D and 2016 Forest Plan Appendix D). The analysis at that time, and since, determined that this group of species would be at the highest risk of all species considered. The viable population committee convened for the original analysis determined that the small mammal endemic group had a moderately high likelihood of being viable and well distributed.

The determination of what constitutes a viable population of the Prince of Wales ermine on the Tongass is beyond the scope of this document.

### Wildlife: Prince of Wales flying squirrel

#### Concern Statement:

The Forest Service's analysis and conclusions regarding the Prince of Wales flying squirrel are unlawful under the NEPA. Any ROD based on this analysis would be arbitrary and contrary to the 2016 Amended Forest Plan, the NFMA, and the other statutes governing timber sales.

With deficiencies having been already demonstrated for northern flying squirrels, proposed actions based on untested assumptions are imprudent and more importantly increase the risk of extinction of an island endemic, which because of historical logging exists in numerous isolated populations across a significant portion of its geographic range (Smith *et al.* 2011) and for which small old-growth reserves do not provide sufficient habitat to sustain viable populations (Smith and Person 2007). Connectivity cannot be determined from simply totaling amount of acres remaining after the landscape has been modified. Landscape context is critical to understanding northern flying squirrel response to local habitat conditions. Patches may not be sufficient size and quality to support breeding populations and if they are functionally connected.

The Forest Service has never determined what constitutes a viable population of the Prince of Wales flying squirrel on the Tongass. There is a lack of understanding of this endemic mammal (e.g., population estimates, distribution across the Tongass, quantity or quality of habitat that must remain to ensure viability).

#### Forest Service Response:

The NFMA requires forest plans to “provide for the diversity of plant and animal communities based on the suitability and capability of the specific land area.” This is achieved through implementation of the Conservation Strategy and Forest Plan direction. The 2016 Forest Plan amendment carries forward the conservation strategy included in the 1997 Forest Plan that contains a goal of providing an abundance and distribution of habitats to sustain viable populations in the planning area (Tongass National Forest).

The 2016 Forest plan determined that the integrity of the Tongass Conservation Strategy would be maintained by all Forest Plan FEIS alternatives (see Forest Plan FEIS Appendix D), and therefore no change to conservation strategy was necessary to maintain a well-distributed and viable wolf population (see Forest-wide Standard and Guideline WILD111B). See also Appendix I p. I-26-30.

The POW LLA Project DEIS acknowledges that there is an increased risk to the POW flying squirrel, but the conservation strategy is not a risk-free strategy. The Conservation Strategy maintains old-growth associated species such as marten, goshawks, flying squirrels (Forest Plan FEIS, Appendix D).

The POW LLA Project analyzes the effects to flying squirrels under the effects to high-volume productive old-growth (HPOG) at the WAA scale. Most wildlife analysis areas with HPOG concerns are adjacent to at least one other WAA that does not have a habitat concern; somewhat mitigating the adjacency issue for species with more limited dispersal capabilities such the flying squirrel. Overall the greatest effect is likely to species with limited dispersal capabilities such as the Prince of Wales flying squirrel when wildlife analysis areas with greater impacts are adjacent to each other or on islands.

The opposing viewpoint of Smith regarding the ability of current conservation strategy to provide habitat for flying squirrels is included in the POW LLA Project EIS.

## Appendix D

The DEIS acknowledges that flying squirrels have limited dispersal capability and that abundance may be reduced through forestry practices that reduce the structure or age of residual stands or create openings too wide. Additional discussion has been added to the FEIS regarding cumulative effects to flying squirrel and flying squirrel viability.

The functional connectivity of an area would be discussed at implementation and while it may be true that all the impacts to connectivity can be analyzed, an analysis of a “worst case scenario” can occur assuming for direct and indirect effects that the entire proposed LSTA would be harvested by clearcut. The cumulative effects analysis assumed the clearcut harvest of all of the LSTA acres as well as all lands in other ownership not providing any habitat for endemics.

The determination of what constitutes a viable population of the Prince of Wales flying squirrel on the Tongass is beyond the scope of this document.

### **Wildlife: conservation strategy**

#### **Concern Statement:**

None of the planning alternatives described or suggested are adequate . . . to ensure viability of all species. “The peer review explained, among other significant flaws, that the Forest Service needed to pay greater attention to matrix management. The Forest Service inexplicably abandons matrix management in favor of arbitrary habitat thresholds. Include the interagency OGR review into an alternative.

The Forest Plan FEIS concluded that full implementation of the Forest Plan (in 100+ years) is expected to have a moderate to very high likelihood of maintaining habitat that supports viable and well-distributed populations of wildlife (USDA Forest Service 2008b). The Conservation Strategy was an experiment based on assumptions for which credible empirical evidence (research or conservation plans) did not exist. For some species the OGR system and intensively managed landscape approach that underpinned the conservation strategy were diametrically opposed to an ecosystem management paradigm that was used successfully across other national forest of the western US (Reynolds *et al.* 2006). Clearly, the wildlife conservation strategy was not developed for the goshawk (Smith 2013).

The best available science has consistently produced findings that do not support key underlying assumptions of the conservation strategy for flying squirrels (Smith and Person 2007, Smith *et al.* 2011) or Queen Charlotte Goshawks (Smith 2013).

There is no credible science from which the following generalization can be inferred, much less concluded: “...full implementation of the Forest Plan (in 100+ years) is expected to have a moderate to very high likelihood of maintaining habitat that supports viable and well-distributed populations of wildlife...” It is simply speculation based on untenable assumptions [...] 7. P. 171, Goshawk, par. 2: “The 2008 Forest Plan FEIS concluded that full implementation of the Forest Plan (in 100+ years) is expected to have a moderate to very high likelihood of maintaining habitat that supports viable and well-distributed populations of wildlife” (USDA Forest Service 2008b).

The 2008 Forest Plan EIS did not a conduct a rigorous, spatially explicit analysis for goshawks (or northern flying squirrel). Smith (2013) conducted a spatially analysis using Forest Service data, GIS layers, and personnel, the methods, findings and conclusions of which were peer reviewed by three goshawk scientists.

### Forest Service Response:

The Forest Plan analysis included the effects of Plan implementation including the proposed POW LLA Project. The Forest Service has not abandoned matrix management. All Forest Plan Standards and Guidelines concerning the matrix are included in the POW LLA Project. Species viability is addressed at the Tongass scale and is outside the scope of this EIS.

Including the interagency OGR review into an alternative would require a Forest Plan amendment. The Responsible Official decided to not amend the Forest Plan through this process to narrow the scope of analysis for this project. This matches the NOI published in the Federal Register for this project.

### **Wildlife: high-volume productive old-growth and size-density class 6/7**

#### Concern Statement:

Habitat thresholds of 20 percent and 50 percent are not appropriate for this analysis. Surprised that the Forest Service is using HPOG instead of size-density class 6/7 (SD67) as the chosen descriptor for deep-snow habitat for deer. Table 43 only accounts for direct/indirect losses of SD67 and fails to provide for cumulative effects.

The natural diversity of forest communities on POW and the Tongass is significantly at risk based on the historical pattern of timber harvest which targeted the rare large-tree old-growth stands. Because these stands provide important habitat benefits to many plant and animals species, the natural abundance of those species may also be at risk. Composition, and connectivity... of old-growth or large-tree old-growth on POW where contiguous high-volume old-growth forest has been reduced by 94 percent (Albert and Schoen 2013).

The POG (and specifically large-tree old-growth) on the Tongass is a non-renewable ecosystem, it is clear that the historical pattern of logging on northern POW and throughout southeast Alaska and the Tongass National Forest has had a major impact on the “composition, structure, function, and connectivity” of this ecosystem. Arguably, the integrity of this ecosystem is at risk particularly in heavily harvested regions like northern Prince of Wales and these non-renewable ecosystems no longer exist within their “natural range of variation” across the Tongass or within specific biogeographic provinces like northern Prince of Wales.

And the POW LLA Project will not correct the historical loss of the old-growth ecosystem or the large-tree old-growth habitat type.

#### Forest Service Response:

The past harvest of large-tree habitat has had an effect on the “composition, structure, function, and connectivity” of this ecosystem and the integrity of this ecosystem is at risk, particularly in harvested regions like northern Prince of Wales. The impact to both HPOG and SD67 habitats are included in the POW LLA Project. While the Forest Service is unlikely to be able to correct the loss of habitat that has already occurred, it can mitigate further loss of this habitat type (Alternatives 3 and 5). All alternatives include treatments in areas of past harvest; some of these treatments will include prescriptions that will attempt to mitigate the effects of past harvest (harvest prescriptions around communities in Alternative 2 and limited or no harvest of deer winter range in Alternatives 3 and 5). The effects to SD67 habitat are discussed in POW LLA Project, includes all SD67, and is not limited to low-elevation south-facing slopes. SD67 Cumulative effects has been added to Table 47. Overall

## Appendix D

percent of the 1954 habitat type remaining by WAA Lands in all ownerships - post project in the FEIS.

Commenter was concerned about the definition of deer winter range. There are research documents that include HPOG in the definition of deer winter habitat including the 2011 Direction for Project-level Deer, Wolf, and Subsistence Analysis. This document defines deer winter range as high-volume POG habitat below 800 feet in elevation. This document goes on to define HPOG habitat as the size density model (SDM) classes 5N, 5S and 67.

In response to the comments concerning that on POW, 94 percent of the contiguous large-tree old-growth stands have been logged since 1954 (Albert and Schoen 2017), the Forest Plan BE states that all biogeographic provinces on the Tongass would maintain at least 57 percent of the original POG at full implementation, and that all action alternatives would maintain at least 80 percent of the original POG in 18 of the 21 provinces (Forest Plan BE p. 23). The 94 percent (Albert and Schoen 2013) large-tree reduction since 1954 pertains to high-volume stands that were defined differently by Albert and Schoen (2013) than large-tree for the Forest Service analysis. Numbers calculated for the Forest Plan amendment do not match those of Albert and Schoen (2013) for either large tree or high volume: the Forest Plan DEIS (p. 3-204) shows original acres of HPOG in the North Central Prince of Wales biogeographic province on all lands (NFS and non-NFS) to be about 479,014 acres with 54 percent remaining. The Forest Plan DEIS (p. 3-205) shows large-tree POG (SD67) in the North Central Prince of Wales province to be about 235,402 acres with 50 percent remaining. Albert and Schoen calculations indicate about 191,514 acres or about 6 percent HPOG remaining (Forest Plan Appendix I p. I-44).

That the HPOG and SD67 habitats may no longer exist within their “natural range of variation” across the Tongass or within specific biogeographic provinces like northern Prince of Wales is discussed in the Forest Plan FEIS (Chapter 3, Biodiversity section) and is outside the scope of this project.

### **Wildlife: connectivity**

#### **Concern Statement:**

The DEIS lacks any site-specific analysis, offering only generalized assertions regarding connectivity across habitat types. Corridor concerns should not be addressed at implementation, they should be addressed in the DEIS.

Contiguous old-growth 94 percent decrease and is vital habitat for many species including wolves and their prey. The POW LLA Project includes no clear evidence in the DEIS of any significant effort to “...maintain or restore structure, function, composition, and connectivity...” of old-growth or large-tree old-growth on POW where contiguous high-volume old-growth forest has been reduced by 94 percent since 1954.

POG (and specifically large-tree old-growth) on the Tongass is a non-renewable ecosystem, it is clear that the historical pattern of logging on northern POW and throughout southeast Alaska and the Tongass National Forest has had a major impact on the “composition, structure, function, and connectivity” of this ecosystem. Arguably, the integrity of this ecosystem is at risk particularly in heavily harvested regions like northern Prince of Wales.

#### **Forest Service Response:**

Corridors will be addressed at implementation (Appendix A: Activity Cards).

The 94 percent (Albert and Schoen 2013) large-tree reduction since 1954 pertains to high-volume stands which are defined differently by Albert and Schoen (2013) than large-tree for the Forest Service analysis. Further, this reduction is true of the existing condition, not a result of this project. In addition, the numbers calculated for the Forest Plan amendment do not match those of Albert and Schoen (2013) for either large tree or high volume: page 3-204 of the DEIS shows original acres of high volume in the North Central Prince of Wales biogeographic province on all lands (NFS and non-NFS) to be 479,014 acres with 54 percent remaining and page 3-205 shows large-tree POG in that province to be 235,402 acres with 50 percent remaining while Albert and Schoen indicate 77,536 hectares (about 191,514 acres) of original high-volume with 6 percent remaining (Forest Plan FEIS Appendix I p. I-43 and 44).

### **Wildlife: young-growth treatments to enhance wildlife habitat**

#### **Concern Statement:**

Forest Service is operating on the assumption that second-growth treatments like thinning, gap creation, and other methods are beneficial to wildlife. If the Agency has access to studies or information that point to the wildlife benefits of certain treatments, it should provide the public with those data. The management of second-growth for products poses unjustifiable risks to species. Uncertainty about the effects to wildlife and forest structure and significant uncertainties regarding the effectiveness of the treatments.

The Forest Service's plan for logging recovering forests on the island are, at best, highly experimental with regard to potential impacts on forest resources. Forest Service must consider uncertain risks associated with relying on thinning or similar treatments to mitigate adverse impacts to wildlife. The FEIS then needs "to explain the differences between the Forest Service's view of likely impacts and the view of others in the scientific community."

There are a limited number of peer-reviewed scientific studies regarding the effectiveness of second-growth treatments. Those studies review thinning and gap treatments and provide no support for the proposition that 10 acre patch clearcuts, or even commercial thinning, would benefit wildlife to the extent suggested in the analysis. Reviews of wildlife based silvicultural treatments in the record are mere descriptions of results at one point in time. Thus the agency's understanding of the long-term consequences of these habitat manipulation experiments "is only in its infancy today." A recent 2017 study authored by five wildlife experts notes that the Forest Service has proposed treating older second growth stands but explains that "[c]urrently, there are no data for deer use of such treatments and their value is purely speculative. Recent research shows that these improvements associated with many thinning prescriptions may not be statistically significant, and confirms previous studies showing" only transient effects of thinning treatments on wildlife habitat.

The record shows that research related to wildlife habitat improvements associated with second growth treatments focuses on less destructive prescriptions, such as single-tree selection can improve forage availability and summer habitat conditions relative to untreated stands in Southeast Alaska second-growth forests.

Efforts to evaluate measures to improve wildlife habitat in Southeast Alaska's recovering forests should instead consider the creation of small, artificial canopy gaps up to a half acre in size. Some research has shown that where as little as 5-10 percent of the area of the stand is treated, it is estimated that there could be a 20-50 percent increase in deer carrying capacity. In theory as much as a 4 fold increase in deer carrying capacity could be achieved in the winter, or a doubling of summer carrying capacity if canopy gaps were increased to 50 percent of the stand area. In addition to these

## Appendix D

gains in habitat quality, canopy gaps would be expected to also be an important means to promote connectivity, dispersal habitat and to retain pockets of understory diversity that could aid reestablishment of diversity when stands are scheduled for other treatments such as commercial thinning (Alaback 2010).

### Forest Service Response:

The Forest Service acknowledges that there is disagreement among scientists with the assumptions that form the rationale for the proposed young-growth treatments. The Forest Service agrees that there is little information on silvicultural treatments for older young-growth stands as most stands are just entering this age range.

The POW LLA Project assumes some benefit to wildlife from various young-growth treatments, and many of the papers pointing to the benefits of treatments are in fact included in the Project Record, such as Alaback 2010. The management of the young-growth acres may include a risk to some species. The conservation strategy is not a “no risk” strategy. The Forest Plan FEIS Appendix D acknowledges that there is some risk to some species. See response to Conservation Strategy. In young-growth stands that are currently in an even-aged condition, this method will create a multi-aged stand structure through a series of periodic entries (see Activity Cards 03 and 14). Under this system, single-tree and/or group selection prescriptions would be used with harvested openings generally 2 acres or less in size. Group selections would harvest no more than approximately 33 percent of the stand area during any entry and single-tree selections would retain least 50 percent of the existing tree basal area during each entry. In young-growth stands, tree selection may vary between basal area reduction, diameter-based designation, and removal of trees in small groups or in strips. Specifications for cut and leave trees in stands under uneven-aged management will be established during prescription development at implementation (Chapter 3, Forest Vegetation, Environmental Effects, Silvicultural Systems in the FEIS).

Management of young-growth stands through release, precommercial, and commercial thinning has the potential to increase biodiversity by concentrating growth in fewer, larger trees that, if allowed to grow over time, promote conditions that accelerate natural succession in order to achieve old-growth stand characteristics at a faster rate than would occur without treatment (Caouette *et al.* 2000). Treatments such as precommercial and commercial thinning can result in benefits to biodiversity by increasing understory growth over the short term, and by promoting the development of old-growth stands over the long term when stands are allowed to mature. The extent of the effects is dependent on the type of young-growth treatment implemented and the time period over which young-growth harvest is implemented. In relation to the conservation of biodiversity, POG forests are some of the most biodiverse ecosystems in Southeast Alaska. Therefore, a transition to predominantly young-growth harvest would be expected to result in greater conservation of biodiversity than an old-growth-based timber program (Forest Plan FEIS p. 3-204).

The Forest Service agrees that the creation of canopy gaps smaller than 1 acre may have some value in some applications.

The Forest Service agrees that a single thinning treatment may maintain understory forage for a few years, but this may not be enough to sustain wildlife through the long-lasting stem exclusion phase; however the Forest Service can do multiple treatments over the years to prolong this benefit.

Young-growth logging in the Beach Fringe and other areas is allowed under the 2016 Forest Plan and changes to this Plan are beyond the scope of this project.

Clearcut harvesting does produce an immediate flush of high-quality understory biomass; it typically lasts about 10-25 years, and is not available to deer during deep snow winters (Alaback 2010). In gap treatments, where as little as 5-10 percent of the area of the stand is treated, Alaback estimated there would be a 20-50 percent increase in the deer carrying capacity. Alaback stated that in theory as much as a four-fold increase in deer carrying capacity could be achieved in the winter, or a doubling of summer carrying capacity, if canopy gaps were increased to 50 percent of the stand area. In addition to these gains in habitat quality, canopy gaps would be expected to also be an important means to promote connectivity, dispersal habitat. These areas could also be expected to retain patches of understory diversity that could aid in reestablishment of diversity when stands are scheduled for other treatments. There is much data and theory that supports the idea that forest biodiversity is generally enhanced by increasing forest heterogeneity. There is considerable evidence that canopy gap formation is a major driver of ecological diversity in temperate rainforests in general. Creating small canopy openings, similar in size to what occurs in old-growth forests could enhance habitat diversity following homogeneous disturbances such as clearcut logging (Alaback 2010).

### **Wildlife: general wildlife**

#### **Concern Statement:**

Do not destroy this habitat because species will be permanently adversely affected from habitat loss. This project will result in total devastation of flora and fauna that coexist with trees that are logged. It would destroy irreplaceable habitat for species unique to the island, as well as bears, Sitka black-tailed deer, Alexander Archipelago wolves, northern goshawks, a variety of cavity nesting birds and many other old-growth dependent species. This logging will leave no secure habitat for these wildlife animals along with more roads and more people. The Tongass National Forest is critical habitat wildlife and should be exempt from any timber sale.

The current proposal would result in habitat loss for some species on the island approaching an unsustainable 80 percent. Habitat thresholds of 20 percent and 50 percent are not appropriate for this analysis. The thresholds for defining minor, moderate, and major effects are inappropriate. Cumulative effects with old-growth harvest. Focus activities that return impacted wildlife habitat to its natural or historical condition.

Wildlife Resource Report fails to analyze and explain any of the impacts of this record-breaking timber sale project on the wildlife on Prince of Wales Island. The biological evaluation cited in the DEIS purports to provide some additional analysis of logging impacts on wildlife, but it could not be located in the planning record.

The Forest Service's analysis must analyze and explain why the Project complies with the NFMA and the 2016 Amended Forest Plan. The agency must make the findings required the 2016 Amended Forest Plan based on a project-level, site-specific, and species-specific analysis. To do otherwise, the agency will act in an arbitrary and unlawful manner.

Objections to the proposed sale of an incredible amount of old-growth forest habitat for clear-cutting in the Tongass National Forest. The past 60 years of industrial logging has targeted the rarest and most productive stands of old-growth forest, thus reducing the highest-volume contiguous old-growth by a staggering 66 percent forest-wide. POG (and specifically large-tree old-growth) on the Tongass is a non-renewable ecosystem, it is clear that the historical pattern of logging on northern POW and throughout southeast Alaska and the Tongass National Forest has had a major impact on the "composition, structure, function, and connectivity" of this ecosystem. Arguably, the integrity of this ecosystem is at risk particularly in heavily harvested regions like northern Prince of Wales.

## Appendix D

The DEIS uses marten as an example of a species that would be impacted by removal of POG average and deep snow habitat (POG below 1,500 feet and 800 feet of elevation, respectively). It states that: Coastal habitats and riparian areas, including the Beach Fringe, have the highest habitat value for marten followed by upland forested habitats (all POG) below 1,500 feet in elevation (USDA Forest Service 2008b, p. 3-234). The ensuing habitat discussion, however, ignores the coastal habitats and riparian areas, including the Beach Fringe, that have the highest habitat value for marten. The undisclosed nature of any logging locations makes even the impacts to the identified habitat impossible to ascertain. [...].

The DEIS discussion of Queen Charlotte goshawks also illustrates how the absence of specifics regarding logging locations confounds the analysis. The document states that “this analysis includes effects to habitat used by . . . goshawks” but it actually only identifies the VCUs where harvest exceeds 33%, thus triggering the application of the Legacy standards and guidelines.

Allow more logging because logging enhances wildlife habitat.

### Forest Service Response:

The effects proposed by the POW LLA Project will not permanently adversely affect wildlife species nor will the proposed activities result in total devastation of flora and fauna. Secure habitat is provided for in the non-development land use designations, including old-growth reserves and LUD II. The POW LLA Project FEIS discusses the effect of the proposed project on wildlife habitat for deer, bear and other species (see Issue 5). The Conservation Strategy, when it was developed for the 1997 Forest Plan, determined that there was a moderately high likelihood that with full implementation of the 1997 Plan, that the 1997 Plan would maintain viable and well-distributed populations of most wildlife species.

The 2016 Forest Plan Amendment retains the goal of providing an abundance and distribution of old-growth habitat to maintain viable populations of wildlife in the forest in its Wildlife Forest-Wide Standards and Guidelines, with plan direction to “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).” (WILDIII B, Proposed Forest Plan, p. 4-82 and Forest Plan Appendix I p. I-45).

The 2016 Forest Plan allows for land in non-development land use designations as suited for young-growth timber production. Even-aged commercial young-growth harvest in these land use designations could increase habitat fragmentation and reduce the ecological contribution of young-growth stands to the reserve system by setting the trajectory toward late seral forest condition back and thereby delaying the development of old-growth stand characteristics such as snags, downed logs, and diverse tree canopy layers required by some POG-associated species (e.g., marten, goshawks, flying squirrels). The 2016 Forest Plan preferred alternative includes a one-time entry constraint and limits the size of created openings to less than 10 acres with maximum removal of up to 35 percent of the area of the original harvested stand, allowing the majority of each stand to mature to old-growth conditions after harvest. Thinning and other young-growth treatments could be used to accelerate old-growth characteristics. The 2016 Forest Plan allows for small old-growth reserves to be modified to compensate for young-growth harvest (Forest Plan Appendix D, p. D-8).

The estimated loss of more than 80 percent of the large-tree POG (SD67) habitat may occur in one WAA (WAA 1530) within the entire POW LLA Project Area. This loss is discussed in the POW LLA Project DEIS (p. 3-205-208; Tables 43, 44, 45, and 46).

Cumulative effects of old-growth harvest are acknowledged in POW LLA Project DEIS. The cumulative effects analysis assumes that on NFS land, all of the proposed potential units in the LSTA will be harvested and that they will all be harvested by clearcut. The POW LLA Project also assumes complete harvest by clearcut of all acres of non-NFS lands.

Restoration treatments such as thinning are included in the POW LLA Project DEIS. Project-level analysis is included in the POW LLA Project. A more site-specific analysis could occur at implementation.

The Tongass National Forest being exempt from any timber sale is beyond the scope of this document.

The Wildlife Resource Report mentioned by commenters is a misnamed document. The document labeled as the Wildlife Resource Report that was included in the Project Record is actually the Wildlife Biological Evaluation for the use of herbicides. A Biological Assessment/Biological Evaluation for the project is in the Project Record.

See response to HPOG and SD67 concerning the effects to these habitat types.

The POW LLA Project FEIS includes a discussion on the Beach Fringe that have the highest habitat value for marten, and the impacts of the proposed young-growth harvest in this area.

The POW LLA Project identifies both the VCUs where harvest exceeds 33 percent, thus triggering the application of the Legacy standards and guidelines as well effects to habitat used by goshawks (HPOG habitat).

The habitat thresholds for this analysis were changed slightly in the FEIS due to comments and to better reflect effects.

The amount of logging proposed in the POW LLA Project is within the 2016 Forest Plan.

### **Wildlife: biogeographic province v. wildlife analysis areas analysis**

#### **Concern Statement:**

A comment was made that effects to wildlife habitat should be measured at the biogeographic province level instead of WAA in accordance with the NFMA.

#### **Forest Service Response:**

Information on effects with full implementation of the Forest Plan to some habitat at the biogeographic province scale is included in the Forest Plan. This deer model assigns relative values to deer habitat with mature old-growth receiving a relatively high value while young-growth stands in the stem-exclusion stage receive a relatively low habitat value. The Tongass National Forest is considered the area of analysis by the NFMA for Threatened and Endangered species as well as Region 10 Sensitive Species.

### **Wildlife: prescribed Fire**

#### **Concern Statement:**

Concern about the benefit of burning and the burning and raking around eagle nests. There was also a concern that the DEIS does not discuss how the timber sale's logging and slash/Rx burning activities

## Appendix D

will be mitigated to assure protected migratory bird species' individuals and their habitat are not harmed in any way.

### Forest Service Response:

The Activity Cards will clarify that there will be no burning within eagle nest buffers. The language concerning eagle nests is taken directly from National Bald Eagle guidelines. The FEIS will clarify that the proposed burning does not occur in Alternative 2. In Alternative 3, prescribed burning would be limited to south-facing slopes less than 800 feet in elevation to promote long-term sustained deer forage in high-value deer winter habitat. The proposed blocks of burning would average less than 10 acres in size. Under Alternative 5, prescribed burning may be used to promote long-term sustained deer forage in all deer habitats. The proposed blocks of burning would average less than 10 acres in size.

### Wildlife: migratory birds

#### Concern Statement:

The POW LLA Project DEIS did not include information on effects to migratory birds.

#### Forest Service Response:

A section on effects to migratory birds has been added to the FEIS.

### Wildlife: legacy

#### Concern Statement:

There was a question on if the legacy standard and guideline would be implemented for even-aged old-growth harvest in units over 20 acres in size within VCUs that have over 33 percent past harvest or those expected to exceed 33 percent with implementation of planned activities. A commenter requested that a list the VCUs where these conditions will be met, triggering the prescription be added to the FEIS.

#### Forest Service Response:

The Legacy standard and guideline will be applied to all even-aged old-growth openings greater than 20 acres in VCUs where more than 33 percent of the POG has been harvested on NFS lands. The Legacy standard and guideline would not be applied in other VCUs until 33 percent of the POG on NFS land has been harvested. A list of VCUs where the legacy standard and guideline currently applies can be found in the Forest Plan p. 4-86 and 4-87.

**Table D-4. Current and Projected Legacy VCUs**

VCU	1954 POG Acres	Past Harvest Acres 2017	POG Acres 2017	% Harvested 2017	2008 Legacy	Legacy 2018	Acres Available Until Legacy is Triggered
5270	5,921	1,610	4,311	27	No	No	344
5280	2,593	722	1,871	28	No	No	134
5290	11,396	2,930	8,466	26	No	No	831
5300	6,969	1,670	5,299	24	No	No	630
5320*	9,761	5,210	4,551	53	Yes	Yes	-1,989
5330	9,220	1,693	7,526	18	No	No	1,349

## Appendix D

VCU	1954 POG Acres	Past Harvest Acres 2017	POG Acres 2017	% Harvested 2017	2008 Legacy	Legacy 2018	Acres Available Until Legacy is Triggered
5340	7,659	1,821	5,838	24	No	No	706
5350*	3,312	1,214	2,098	37	Yes	Yes	-121
5360	5,132	1,501	3,630	29	No	No	192
5371*	4,368	2,001	2,367	46	Yes	Yes	-559
5380*	7,230	4,913	2,318	68	Yes	Yes	-2,527
5390*	5,552	2,085	3,467	38	Yes	Yes	-253
5400	3,187	854	2,334	27	No	No	198
5430	8,153	2,143	6,010	26	No	No	547
5440*	3,713	1,596	2,117	43	Yes	Yes	-371
5450 <sup>1/</sup>					Yes		No LSTA in VCU
5460*	7,611	2,787	4,824	37	Yes	Yes	-276
5492	3,682	1,099	2,583	30	No	No	116
5500*	7,310	3,717	3,592	51	Yes	Yes	-1,305
5560 <sup>1/</sup>					Yes		No LSTA in VCU
5570 <sup>1/</sup>					Yes		No LSTA in VCU
5520	6,200	1,037	5,163	17	No	No	1,009
5542 <sup>2/</sup>	2,613	565	2,048	22	Yes	No	297
5550*	11,547	4,244	7,303	37	Yes	Yes	-433
5580*	2,490	1,132	1,359	45	Yes	Yes	-310
5590*	5,178	2,139	3,040	41	Yes	Yes	-430
5600 <sup>1/</sup>					Yes		No LSTA in VCU
5610*	8,585	3,317	5,268	39	Yes	Yes	-484
5620*	9,090	3,758	5,332	41	Yes	Yes	-758
5630	3,709	171	3,538	5	No	No	1,053
5700*	4,432	3,313	1,118	75	Yes	Yes	-1,851
5710*	8,003	3,548	4,455	44	Yes	Yes	-907
5720 <sup>1/</sup>					Yes		No LSTA in VCU
5730	17,172	4,351	12,821	25	No	No	1,316
5740	18,582	3,674	14,908	20	No	No	2,458
5750	11,433	383	11,050	3	No	No	3,390
5760	7,520	530	6,990	7	No	No	1,952
5770**	17,951	7,086	10,864	39	No	Yes	-1,163
5790*	7,080	4,400	2,681	62	Yes	Yes	-2,063
5800	9,772	2,788	6,984	29	No	No	437
5810*	13,525	6,836	6,688	51	Yes	Yes	-2,373
5830*	8,635	3,864	4,771	45	Yes	Yes	-1,014
5840*	9,927	4,291	5,636	43	Yes	Yes	-1,015
5850*	7,548	4,710	2,838	62	Yes	Yes	-2,219
5860*	6,020	3,561	2,459	59	Yes	Yes	-1,574

## Appendix D

VCU	1954 POG Acres	Past Harvest Acres 2017	POG Acres 2017	% Harvested 2017	2008 Legacy	Legacy 2018	Acres Available Until Legacy is Triggered
5871*	7,083	2,915	4,168	41	Yes	Yes	-577
5872 <sup>1/</sup>					Yes		No LSTA in VCU
5880*	20,536	10,867	9,668	53	Yes	Yes	-4,090
5890	13,073	3,380	9,694	26	No	No	935
5900*	9,628	3,927	5,701	41	Yes	Yes	-750
5910	4,046	778	3,269	19	No	No	558
5950	8,776	2,245	6,531	26	No	No	651
5960	5,397	239	5,158	4	No	No	1,542
5972*	12,704	4,546	8,157	36	Yes	Yes	-354
5980**	8,306	3,283	5,023	40	No	Yes	-542
6090	3,415	10	3,405	0	No	No	1,117
6100*	6,764	2,884	3,881	43	Yes	Yes	-651
6120	1,770	305	1,466	17	No	No	280
6130**	8,225	2,931	5,294	36	No	Yes	-217
6180	5,148	680	4,468	13	No	No	1,019
6190	3,593	994	2,600	28	No	No	192
6200 <sup>2/</sup>	11,394	3,537	7,857	31	Yes	No	223
6210*	10,266	3,799	6,467	37	Yes	Yes	-411
6220	12,012	3,860	8,153	32	No	No	104
6240*	7,309	2,627	4,682	36	Yes	Yes	-215
6330	1,643	216	1,427	13	No	No	326
6340	7,938	657	7,280	8	No	No	1,962
6350	4,667	816	3,851	17	No	No	724
6360	4,567	222	4,345	5	No	No	1,285
6770	1,155	0	1,155	0	No	No	381
6790	9,319	1,955	7,364	21	No	No	1,120
6800	1,684	126	1,558	7	No	No	430
6810	3,906	90	3,816	2	No	No	1,199

\*Legacy current currently required and is projected to be required.

\*\*Legacy not currently required but is projected to be required.

<sup>1/</sup> VCU included in legacy table in Forest Plan but not here because there are no LSTA activities proposed in the POW LLA Project in the VCU.

<sup>2/</sup> Legacy applied at the time of the 2008 Forest Plan. Legacy calculations were not recalculated for the 2016 Forest Plan; however, land conveyances between the 2008 and 2016 Forest Plan resulted in both an overall loss of Forest Service acres in these VCUs as well as a loss of acres of past harvest. Both of these facts result in a VCU that now has less than 33 percent POG harvest on NFS land.

## Wildlife: Appendix B Implementation Plan

### Concern Statement:

A concern that Appendix B is really difficult to understand, and there is inconsistency in the “Wildlife Habitat Improvement” decision.

### Forest Service Response:

Decision tree in Appendix B has been clarified.

### **Wildlife: subsistence**

#### Concern Statement:

A comment was made that subsistence as a way of life is not adequately addressed in the Planning Document and that the DEIS fails to take a hard look on the cumulative effects of logging on subsistence hunting. Analysis of impacts on subsistence uses is inadequate, especially with recent declines in hunting opportunities and increased competition and effects to the deer population. A concern was raised on the red salmon in Red Creek and a suggestion to an overall restriction to 4 wheeler only access on all side roads off the 20 road during the month of November. A commenter also stated that the DEIS only focuses on the negative instead of improved access for rural subsistence.

The 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 (USDA Forest Service 2016b, p. 43).

On page 78 the document states that although deer populations generally increase for 20-30 years after harvesting timber in an area, deer populations tend to decline in the long-term as the canopy closes, “resulting in lower habitat quality...” Actually, that assertion is not supported by empirical evidence. For instance, tables 8 and 11 in the document clearly show that the most heavily logged wildlife analysis areas (Polk, Thorne Bay, 12-mile, Klawock, North Thorne River, Rio Beaver and Rio Roberts, Coffman, Ratz Harbor and Staney Creek) have consistently sustained much larger deer harvests than other areas even though most of those areas were harvested 40 to 60 years ago. These areas will continue to provide lots of deer into the future. The Forest Service has long noted that the edge-effect adjacent to clearcut areas allows some species to increase in abundance [1]. Many people have noted that the edges of clearcuts provide both enhanced deer browse and protection from winter snows. This edge-effect habitat is more than adequate to sustain deer through the deep-snow winter months. Particularly true if the harvesting is at lower elevations where the timber grows more quickly and, by the way, where it is less costly to harvest timber. Consequently, the best way to increase deer habitat and sustain a local timber manufacturing industry is to increase clearcut logging.

Commenters felt that the POW LLA Project did not take a “hard look” on the cumulative effects of logging on subsistence and recreational hunting. Some commenters felt that it violated the ANILCA by precluding a “reasonable opportunity to take fish and wildlife” as herds diminish (TITLE 16 - Conservation Chapter 51 - Alaska National Interest Lands Conservation Subchapter II - Subsistence Management and Use Sec. 3114. Preference for subsistence uses). Commenters pointed out that at the Southeast Alaska Subsistence Resource Advisory Committee’s winter 2017 meeting in Craig, subsistence users described having a harder time harvesting deer during the 2016 season and the 2017 deer season has been characterized as the worst in recent memory for many hunters on Prince of Wales Island. Another commenter wanted a greater review of how the no-action alternative would benefit subsistence users and other deer hunters.

A commenter whose family owns private property and a cabin on the west side of Red Bay depend on Forest Service roads for access to the property and subsistence resources in the area. Land management decisions made for the area will affect their ability to subsist and recreate as well as affect the real value of the property.

## Appendix D

### Forest Service Response:

The subsistence section of POW LLA Project does take into the account the effects of logging on subsistence hunting in the discussion of the effects to deer habitat. The interagency deer model that is used to estimate the deer habitat capability of an area assigns different habitat values to areas depending on several factors including if it has been harvested or not, and if an area has been harvested, when the harvest occurred. Once a harvest area is greater than 25 years old but less than 150 years old it receives a relative low habitat value thereby taking into account the effects of logging. The deer habitat capability model takes into account the cumulative effects of logging due to the fact that this model assigns a habitat capability value of zero to all non-National Forest Lands. The direct effects to subsistence hunters are discussed as effects to federally qualified subsistence users and cumulative effects to subsistence as effects of all hunters.

The POW LLA Project DEIS does discuss the positive effects of increased access for subsistence hunters (POW LLA Project DEIS p. 72).

The POW LLA Project tiers to the 2016 Forest Plan. The Forest Plan FEIS determined that the direct and indirect effects of implementation of the Forest Plan may result in a significant possibility of a significant restriction for subsistence uses of deer in some of the Project Area wildlife analysis areas (USDA Forest Service 2016b, p. 43).

The analysis in Issue 2: Subsistence in the DEIS includes the abundance and distribution of, competition for and access to subsistence resources, including Sitka black-tailed deer in all alternatives (1, 2, 3, and 5). The analysis included a potential finding in the ROD that:

The direct and indirect effects from all alternatives associated with the project do not present a significant possibility of a significant restriction of subsistence uses of fish and marine invertebrates, food plants, personal use timber, upland game birds and waterfowl, furbearers, marine mammals. The direct and indirect effects associated with the project may present a significant possibility of a significant possibility of a significant restriction of subsistence use of deer.

The potential cumulative effects associated with implementing the Forest Plan through the entire rotation period, which include the project no action and action alternatives, do not present a significant possibility of a significant restriction to subsistence uses of fish and marine invertebrates, food plants, personal use timber, upland game birds and waterfowl; however, a significant possibility of a significant restriction of subsistence use of deer may exist (DEIS, page 89).

Section 810 (a)(3) of the ANILCA requires that when a use, occupancy, or disposition of public lands may result in a significant possibility of a significant restriction, a determination must be made whether (1) such a restriction is necessary, consistent with sound management principles for the utilization of public lands, (2) the proposed activity involves 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 the actions. This analysis was completed and included in the DEIS on page 90.

The effects of past harvest on deer habitat are acknowledged in the POW LLA Project habitat analysis (current condition). The effect of young-growth stands in a stem-exclusion phase is taken into account in the interagency deer model deer habitat capability calculations. This deer model assigns relative values to deer habitat with mature old-growth receiving a relatively high value while young-growth stands in the stem-exclusion stage receive a relatively low habitat value. Population viability is

determined at the scale of the Forest Plan and not individual watersheds. Estimated effects to deer winter habitat, wolves and subsistence users is included in the POW LLA Project.

The effects of the proposed project to subsistence deer harvest are included in the EIS. Hunter success can be expected to decline, either through reduced hunter efficiency and moderate difficulty in obtaining deer, in wildlife analysis areas where harvest equates to between 10 and 20 percent of habitat capability. If harvest exceeds 20 percent of habitat capability, the harvest of deer by hunters may be directly affected either through restriction in seasons and bag limits or indirectly through reduced hunter efficiency and increased difficulty in obtaining deer relative to historical rates (USDA Forest Service 2008b, p. 3-428). Hunter harvest data, the number of deer taken from 2006 to 2016, were used in this analysis. The deer harvest data was obtained from ADF&G and is included in the Project Record. This likely underestimates actual hunter harvest, as it does not include hunters who were not successful in taking any deer or took fewer deer than they desired.

Table 9 from the DEIS shows that when considering federally qualified subsistence hunters only, only two wildlife analysis areas exceeded the estimated 20 percent; and when considering all hunters, five wildlife analysis areas exceeded the estimated 20 percent.

Alternative selection will not regulate competition issues between subsistence users and non-subsistence users, as regulation changes specific to sport and subsistence hunting must be addressed by the Alaska Board of Fisheries and/or the Federal Subsistence Board processes. Additionally, in times of resource shortage, the Federal Subsistence Board has the ability to restrict the harvest of subsistence resources as directed under the ANILCA 804. Lastly, the Craig/Thorne Bay District Ranger has been delegated the authority from the Secretaries of Interior and Agriculture, through the Federal Subsistence Board to issue emergency special actions not to exceed 60 days or temporary special actions to set Federal subsistence harvest quotas, to close or reopen Federal seasons, to adjust harvest and possession limits for deer or in extreme situations, to close Federal public lands to the take of deer by both Federally-qualified and non-qualified users.

### **Wildlife: habitat thresholds**

#### **Concern Statement:**

The DEIS bases 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. The DEIS explains 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.

Forest Service has never relied on generic habitat thresholds to justify its viability conclusions or assess project-level impacts. The "minor" effect could be changed to moderate in some wildlife analysis areas depending on the amount of proposed harvest under the POW LLA Project, which would be calculated prior to implementation when specific information is available.

Comment that the Forest Service is attempting to assess project level impacts and justify its decision to proceed with the Prince of Wales Project using a conditioned-based analysis and arbitrary habitat thresholds that purportedly relate to species "persistence". The Forest Service has never handled a

## Appendix D

wildlife impact analysis in the perfunctory manner it attempts in this DEIS. The agency never explains what it means to persist and provides no scientific support to establish habitat thresholds either at the individual species level or for the Tongass generally. Additionally, mere persistence is not the threshold established in the NFMA or the 2016 Amended Forest Plan.

There are multiple problems with the use of these thresholds for evaluating impacts to wildlife habitat or connectivity, not the least of which is the spatially inexplicit nature of using a percentage of total acres of remaining habitat without landscape context (Holloway *et al.* 2012) to evaluate the impacts on all wildlife species across the Tongass, regardless of their habitat affinities or ecological communities (which vary across islands; Smith 2012b).<sup>131</sup> Dr. Smith notes that “[w]ithout further evidence or justification, the DEIS uses these thresholds to make determinations of impacts to habitat throughout the wildlife habitat and connectivity section.” He explains that the 20 percent threshold (Fahrig 1997) and 50 percent habitat remaining (Soulé and Sanjayan 1998) “are not based on wildlife research studies of any species or group of species, nor does the objective of these studies have any relevance to habitat suitability to support breeding populations of wildlife, much less viable and widely distributed populations.” Neither of these studies cited as the basis for determining impacts to wildlife habitat has anything to do with habitat suitability. Indeed, they are not studies of wildlife populations, and in fact, do not even represent ecological research.

Broad habitat measurements do not demonstrate sufficient “knowledge of what quality and quantity of habitat is necessary to support the species” and ensure compliance with the NFMA’s viability standards

### Forest Service Response:

Effects of the proposed project to wildlife and the effects to deep snow deer habitat are discussed in the EIS. The cumulative effects of clearcutting are also in the EIS. The EIS discusses the cumulative effects of old-growth logging by VCU and WAA on NFS land since 1954 as well as the cumulative effects of clearcut logging lands in all ownership. The identified literature threshold of 50 percent was not measured at the VCU scale. The EIS uses the 50 percent habitat remaining value at the WAA scale.

Persistence is the continued or prolonged existence of something.

The references cited as a basis for the use of these thresholds were refined between the DEIS and FEIS.

## **Wildlife: implementation of different harvest prescriptions and standards and guidelines**

### Concern Statement:

Comment that Appendix A is the toolbox, from which different tools (prescriptions) can be applied to the land to generate desired outcomes. Comment had concerns that some of those tools have little scientific backing and others are insignificant. Comment also stated that it was unclear where the treatments will be applied, on how many acres, and to what quantitative effect [...]. The comment requested that the Forest Service provide a table that shows the level of application that have received each of these prescriptions in last 10 years (e.g., acres burned, acres selectively logged, goshawk nests found and buffered, wolf dens found and buffered etc.). Commenter believed that in reality the real-world application is low and requested that if the percentage is low to the point of insignificance, drop it to simplify the FEIS.

This project would delay this recovery process so that clearcut second-growth forests would require 50 to 60 years to reach the same inhospitable stand conditions present today, and another 40 to 50 years to recover into understory re-initiation structure. The Forest Service's planned plantation rotation is 100 to 110 years old (or less) - preventing the "development of additional, quality habitat and increasing species extirpation risks across the landscape" over the long-term. Over the long-term, will result in federal lands remaining at the stem exclusion stage.

The concern is the proposed implementation of uneven-aged management, single-tree or group selection harvest, which although according to the Forest Service it has been used in the Big Thorne, there is no science or other credible information about its use in temperate rainforests. Indeed, Appendix G, which describes silvicultural systems on national forest lands in southeast Alaska, discourages the use of uneven-aged timber management. More importantly, there is no information on the effects of single-tree selection (preferred option) on wildlife habitat in northern hemisphere temperate rainforests, much less on the Tongass. Yet, conclusions are presented in the DEIS about the expected impact to wildlife habitat connectivity if implemented on POW.

### Forest Service Response:

The analysis in the POW LLA Project FEIS assumes that uneven-aged harvest methods would have less negative impact on old-growth habitat than even-aged methods. Uneven-aged harvest methods would mostly be prescribed for harvest in non-development land use designations or areas with limited deer winter range; they would not routinely be prescribed in areas where timber production is the primary goal. Professional judgement was used in the assumption that single-tree selection would have less impact on wildlife habitat than even-aged harvest methods, especially over the long term.

The Forest Plan planned rotation is about 100 to 110 years old (or less) and while this rotation prevents the "development of additional, quality habitat and increasing species extirpation risks across the landscape" over the long-term, the conservation strategy never assumed that these acres would reach old-growth maturity.

### Wildlife: Forest Plan

#### Concern Statement:

The Forest Service fails to explain its conclusion that the Project complies with the 2016 Amended Forest Plan. As explained above, the 2016 Amended Forest Plan contains specific provisions governing matrix management in the Tongass. The DEIS, however, fails to explain whether and why the agency could approve the Project and still comply with those provisions. The Forest Service in most cases fails to even acknowledge the governing provisions in the 2016 Amended Forest Plan and in others offers nothing more than conclusory assertions that it meets the provisions.

Forest Service's lack of analytical rigor conflicts with an explicit goal of the 2016 Amended Forest Plan in managing approaches for wildlife: "The intent is that determinations of prescriptions and opening sizes consider spatial and temporal conditions of adjacent landscapes." the Forest Service's failure to examine the impacts of the Prince of Wales Project based on the spatial and temporal context of the proposed scope of activities renders the agency's conclusions regarding impacts and the balancing of interests arbitrary and unlawful under the NFMA (as well as the other statutes governing timber sales). Before it can approve the Project, the Forest Service must prepare a new DEIS that presents the agency's conclusions regarding the NFMA based on a site-specific evaluation and provide a non-arbitrary explanation of the agency's rationale and the evidence that supports the ultimate conclusions.

## Appendix D

### Forest Service Response:

The POW LLA Project complies with the 2016 Forest Plan Amendment including specific provisions governing matrix management. The determinations of prescriptions and opening sizes consider spatial and temporal conditions of adjacent landscapes will be determined at project implementation.

### Rock for public use

#### Concern Statement:

Commenter wants contractors to develop extra rock for public use when developing rock quarries.

#### Forest Service Response:

When quarries are developed it is for a specific purpose and funded accordingly. Contractors cannot be expected to bear the burden of developing extra rock for public use. Due to high cost, the Forest Service did not further develop a proposal to supply extra rock for public use, however, if Forest Service specialists determine a quarry has extra rock not needed for government purposes, that rock may become available through the special uses program.

### Road maintenance

#### Concern Statement:

Commenter feels roads are not receiving the proper maintenance.

#### Forest Service Response:

The USDA publication #0577 1205 December 2005 *Guidelines for Road Maintenance Levels* describes maintenance levels for road. The majority of the open roads in the analysis area are maintenance level 2 and 3 roads.

The road maintenance program has been actively working to meet the required standards. Road maintenance needs are dynamic, what is up to standard today may need work tomorrow due to weather, wearing or other occurrences. Most all roads are maintained above the national standard for the designated maintenance level.

Road maintenance includes any expenditure in the repair or upkeep of a road necessary to perpetuate the road and provide for its safe use. The road maintenance budget for Prince of Wales Island has been around \$400,000 per year for the last several years, down from about \$1,200,000. The annual grading contract covers about 250 miles of road grading, there is some flexibility in when and where roads are graded. The 2000000 road, along with other aggregate surfaced roads will be reviewed for additional grading. The annual brushing contract covers about 100 miles of roadside brushing. Brushing is on a 3 to 5 year rotation depending on need. The intent of brushing is not so much to mow grass during the growing season rather to cut trees and brush that inhibit safe sight distance and inhibit driving. The particular roads mentioned by the commenter will be reviewed for additional road maintenance, the annual road maintenance plan will reflect any needed work items.

### Designate e-bikes as non-motorized

#### Concern Statement:

Commenter wants a local designation of electric bikes (e-bikes) as non-motorized and to allow use on non-motorized trails.

### Forest Service Response:

E-bikes have a motor and therefore they are considered motorized vehicles; e-bikes are managed under authorities for motorized transport. 36 CFR 212.51(a) and 80 Fed. Reg. 4503 (Jan. 28, 2015). There is no opportunity for local designation of e-bikes as non-motorized. The POW LLA Project FEIS incorporates by reference the decision on the Access and Travel Management Plan Environmental Assessment for Prince of Wales and Surrounding Islands (USDA Forest Service, 2009, as amended). That document will continue to guide travel management within the Project Area and no changes to objective maintenance levels for existing roads are proposed as part of the POW LLA Project. E-bike trail use is beyond the scope of the POW LLA Project and that public input on e-bike use and trail designations would be welcomed during separate NEPA processes associated with travel management planning on the Forest or District.

### Road 2080

#### Concern Statement:

Commenters requested road 2080 remain a motorized trail and the currently closed roads remain closed to motorized traffic post-harvest.

#### Forest Service Response:

The POW LLA Project FEIS incorporates by reference the Access and Travel Management Plan Environmental Assessment for Prince of Wales and Surrounding Islands as amended (USDA Forest Service 2009). This document will continue to guide travel management within the Project Area. Designated routes and areas are reviewed annually and when approved changes are implemented. The POWLAA project considered the existing and proposed NFS roads by resource and temporary roads as described in Chapter 3 of the FEIS.

A travel analysis for this project was conducted in accordance with FSH 7709.55 for proposed NFS roads. The recommended operational and objective maintenance levels for each road were assigned and a proposed travel management strategy assigned. The project travel analysis is in the Project Record. The motor vehicle use map (MVUM) shows the designated routes and areas along with class of vehicles authorized and, if appropriate, times of year for which use is authorized. The annual review of the Travel Management Plan will be conducted in conjunction with the POW LLA Project annual workshops as described in Appendix B of the FEIS.

Road 2080000 is currently designated as a mixed-use road from milepost 0.00 to 1.10 and an OHV trail from milepost 1.10 to 4.00. There are no plans to modify the ATM plan from these designations.

### Log transfer facilities

#### Concern Statement:

Commenter is concerned about environmental impacts of log transfer facilities.

#### Forest Service Response:

The effects of log transfer facilities are addressed in Chapter 3 of the FEIS. They undergo a complex and rigorous permitting process involving four state and four federal resource management and regulatory agencies, including Essential Fish Habitat Consultations from the National Marine Fisheries Service, as well as comments from other interested parties. Appendix B describes the annual Implementation Plan, which is when the required permitting processes will occur for POW LLA

## Appendix D

Project activities. Through the permitting process, the regulatory agencies may approve or disapprove permits with stipulations that govern the construction and operation of log transfer facilities. The 2016 Forest Plan guidelines for planning and permitting of log transfer facilities delineate the physical requirements necessary to construct a log transfer and associated facilities and, in context with the requirements of applicable law and regulations, methods to avoid or control potential impacts from these facilities on water quality, aquatic, and other resources. (2016 Forest Plan, Appendix G Log Transfer Facility Guidelines, p. G-1). The POW LLA Project FEIS includes specific potential locations of log transfer facilities: thirteen existing log transfer facilities are proposed for use and two new sites are proposed for all alternatives (see Table 89. Project area log transfer facilities: status and required work in the FEIS and the Commercial Vegetation Map online at <http://www.fs.usda.gov/goto/tongass/powlla>).

### **Access and travel management for public uses**

#### **Concern Statement:**

The concern is that land management decisions made about roads for the area will affect the ability to subsist and recreate as well as affect the value of private property.

#### **Forest Service Response:**

The Decision Notice for the Access and Travel Management Plan Environmental Assessment for Prince of Wales and Surrounding Islands, Tongass National Forest was signed on September 3, 2009. This document (as amended) continues to be the guiding document for travel management within the Project Area. Designated routes and areas are reviewed annually and when appropriate modifications to the designated routes and areas are implemented. The designated routes and areas along with class of vehicles authorized and, if appropriate, times of year for which use is authorized is shown on the MVUM. The annual review of the Prince of Wales Travel Management Plan will be conducted in conjunction with the POW LLA Project annual workshops as described in Appendix B of the DEIS. At this time, access to subsistence resources and for recreation will be considered. Adjacent landowners would have the opportunity to participate also.

Each alternative has a different set of roads based on the LSTA. For example, Alternative 5 includes no harvest “North of 20 Road” - at the north end of Prince of Wales Island between Port Protection and Calder Bay (DEIS page 292). This alternative gives greatest priority to subsistence, watershed, and wildlife issues by incorporating no increases in peak flow rates, stream restoration, and maintaining and improving wildlife habitat across the landscape.

### **Transportation: building roads with appropriated funds**

#### **Concern Statement:**

There is a concern that road construction and road reconstruction is done with “taxpayer’s dollars”. Commenters wanted a disclosure of transportation costs and how much public works funding is scheduled for road work.

#### **Forest Service Response:**

Projected transportation costs are discussed in Issue 2: Timber Supply and Timber Sale Economics as well as in the Transportation section, Transportation Costs by Alternative.

At this time, there are no foreseeable plans for road construction in the Project Area other than those disclosed in the FEIS and there are no congressional appropriations slated for this project. At this

time, there are no public works contracts for construction, reconstruction, repair or maintenance associated with this project. Congressional appropriations cannot be predicted; at times, Congress has made funds available for road construction and reconditioning in support of timber sales in the past but there is no guarantee that they will in the future.

### **Recreation: guide businesses**

#### **Concern Statement:**

Commenter expressed opposition to the implementation of recreation activities in areas that are used by guide businesses.

#### **Forest Service Response:**

Sites listed in the DEIS were suggested by the public during development of the POW LLA Project. These suggestions were used to provide a quantifiable basis for analysis, in addition to recognizing potential sites for future implementation. The Implementation Process would identify needs, recognize public input, and consider available resources. Spring and fall workshops will be held with collaborators, the public, and Forest Service personnel. The workshops initiate the project Implementation Process and would provide the opportunity for the public to have input on types and locations of activities (DEIS Appendix B, p. B-4).

### **Recreation: Harris River Campground**

#### **Concern Statement:**

Commenter questioned the proposed closure of the Harris River Campground.

#### **Forest Service Response:**

The question of activities regarding decommissioning the Harris River Campground would be an appropriate topic of discussion during a pre-implementation workshop (DEIS Appendix B p. B-4). At this time, decommissioning the Harris River Campground is proposed as an exchange for developing an El Capitan Campground. The number of campgrounds is based on maintenance costs and projected use (FEIS, Chapter 2).

### **Recreation: prioritizing activities**

#### **Concern Statement:**

Commenter provided suggestions on the selection of recreation activities based on request for the POW LAT to prioritize projects.

#### **Forest Service Response:**

Both approaches suggested by the POWLAT (wide distribution of activities and public input) would be applied in identifying recreation activities for implementation. The objective of planning would be to provide well-distributed recreation opportunities across POW that are vetted through a public input process prior to implementation (DEIS Appendix B).

## Appendix D

### Recreation: terminology

#### Concern Statement:

Commenter urges the agency to refer to “recreation infrastructure” as “visitor industry”, based on the impact to the local economy, and would follow the input of the POW LAT.

#### Forest Service Response:

We understand the importance of recreation infrastructure and the correlation with business development, jobs, and visitors on the island, and this is identified in the DEIS. The POW LLA Project team also recognizes the importance of public input for the development of recreation on POW and the benefit of cooperative engagement with public groups toward making proposed projects come to fruition so as to support local communities.

### Employment

#### Concern Statement:

Commenters expressed concern that the POW LLA Project prioritizes jobs in timber industry. Several observed that the number of jobs supported by timber operations are low compared to jobs in non-timber economic sectors.

#### Forest Service Response:

The Multiple-Use Sustained-Yield Act of 1960 mandates that national forests are to be managed under principles of multiple use and produce a sustained yield of goods and services and that no specific use predominates other uses. Forests are managed for any combination of recreation, range, timber, watershed, and wildlife and fish purposes. Economic sustainability of POW LLA Project communities, including nearby outlying island communities, is an important part of the need for the project. Almost all communities on Prince of Wales have a higher percentage of people living in poverty than the statewide average of 10 percent. Chapter 3 of the POW LLA Project DEIS assesses social and economic conditions and trends in Project Area communities, with both quantitative and qualitative analyses of how the project may affect community social and economic well-being.

The proportion of employment by industry in the Project Area was considered in the POW LLA Project DEIS. Table 73 shows that the share of employment in natural resources and mining, manufacturing, and leisure and hospitality in the POW LLA Project Area are 8 percent, 5 percent, and 6 percent, respectively. Both the number and diversity of jobs types is important and jobs in timber are treated equally with jobs in other resource-dependent industries. The Purpose and Need for the POW LLA Project are consistent with the 2016 Forest Plan and rooted in the Forest Service’s statutory obligation, subject to applicable law, to seek to provide a supply of timber from the Tongass National Forest that meets market demand annually for the planning cycle, and to restore and improve forest resources to a condition where they provide greater benefits to society (Tongass Timber Reform Act, Section 101).

#### Concern Statement:

The employment estimates for alternatives in the DEIS inflate potential Alaska resident employment in the timber industry.

### Forest Service Response:

Employment for each alternative is estimated using the Forest Service's Financial Analysis Spreadsheet Tool – Residual Value (FASTR). Job estimates in the DEIS are calculated as a function of the timber volume proposed for each alternative and annualized over the project life. These estimates are used to compare relative differences in jobs supported by alternative. They are not a measure of absolute or annual number of jobs created. Economic sustainability in the project community area is part of the Purpose and Need for the POW LLA Project and is consistent with the 2016 Forest Plan.

### Concern Statement:

Harvesting timber will negatively impact fishing, wildlife, tourism, and recreation industries and opportunities. People do not visit the Tongass to see large swaths of clear-cut lands; they come to take in the scenic beauty, intact landscapes, wildlife, and a healthy wolf population.

### Forest Service Response:

Economic sustainability of Prince of Wales communities, including nearby outlying island communities, is an important part of the need for the project. Chapter 3 of the POW LLA Project DEIS assesses social and economic conditions and trends in Prince of Wales communities, and provides a foundation to consider how proposed project activities may affect community social and economic well-being. For the small communities on Prince of Wales, every job is important and a diversity of types of jobs is also important and both contribute to the local economy and community well-being. The FEIS specifies that proposed timber harvests would consider the impacts on other resources and recreation infrastructure. All alternatives in the POW LLA Project include investments in sustainable recreation, which is a benefit to tourism both in terms of opportunities and employment. Impacts to resources such as recreation and wildlife are analyzed in Chapter 3 within their respective sections.

## **Socioeconomics: contributions of non-timber business**

### Concern Statement:

Commenter would like the DEIS updated to include the economic value of small cruise ship/tourism industry for Kuiu Island.

### Forest Service Response:

Kuiu Island is outside of the Project Area for the POW LLA Project and therefore is outside the scope of the DEIS analysis.

### Concern Statement:

The FEIS should include more information on the economic benefits of tourism that stems from healthy populations of birds and wildlife.

### Forest Service Response:

Thank you for the information and references provided in your comment. We agree that wildlife viewing and birdwatching are important and valuable experiences for many visitors, as demonstrated in the Alaska Visitor Statistics from the McDowell Group. The FEIS acknowledges the importance of the tourism industry as a component of the POW area economic base. However, the information provided in your comment contains state and regional-level visitor statistics for Alaska, rather than information specific to the POW LLA Project Area. Visitor data at the state and regional scale are too general to use for evaluating impacts on local communities on Prince of Wales Island or choosing

## Appendix D

between management alternatives, and so were not included in the FEIS. Impacts to other resources, such as recreation and wildlife, are analyzed in Chapter 3 within their respective sections.

### **Cultural resources: irreversible and irretrievable effects**

#### **Concern Statement:**

A commenter recognized that the Forest Service failed to display the irreversible and irretrievable commitments for cultural, as well as the soil, wetland, and wildlife resources.

#### **Forest Service Response:**

We have added discussion of irreversible and irretrievable commitments for cultural resources, soil, wetland, and wildlife in Chapter 3 of the FEIS. Regarding cultural resources however, until specific, discrete projects are identified, and the Section 106 procedures concluded, no irreversible or irretrievable commitments for cultural resources are being made.

### **When is Tribal or Corporation consultation warranted?**

#### **Concern Statement:**

Consider outlining some steps for addressing concerns when one or more local communities or other stakeholders raise an issue, in terms of determining whether Native Corporation and Tribal consultation is warranted.

#### **Forest Service Response:**

Consultation is a legal requirement and is carried out in different ways depending on which law applies. For example, consultation is handled differently during the NEPA process than it is in the NHPA process. The NHPA is used to inform the NEPA process and requires federal agencies to consider the effects of their actions on National Register of Historic Places (NRHP)-eligible, historic properties. The NEPA process views all cultural resources as being significant cultural sites regardless of their NRHP-eligibility. Both NEPA and NHPA laws require consultation with tribes, the State Historic Preservation Officer, and in some instances the Advisory Council on Historic Preservation (ACHP) to ensure that either cultural resources (NEPA process) or historic properties (NHPA process) are not adversely affected by federal undertakings, and if they are, that appropriate mitigation is completed.

### **Sealaska request for dialogue and collaboration**

#### **Concern Statement:**

Sealaska requests that their comments be considered and responded to through continued dialogue and collaboration as the Forest Service continues the Project process. Sealaska, on behalf of its shareholders, has important interests and concerns regarding federal actions that can affect planning and management of the Tongass National Forest, Sealaska property, and other lands and waters in Southeast Alaska. Sealaska represents the unique and special relationship that the original human occupants and stewards of Southeast Alaska lands and waters have to these natural resources. We want to ensure that the Forest Service considers Sealaska's unique perspective based on our cultural, social, environmental and economic experience in the region, and our desire to provide due consideration to the needs of current and future generations in accordance with our core cultural value of Haa Shuka.

### Forest Service Response:

The Forest Service will continue to consult with Sealaska and other affected tribes and corporations on this project.

### **Invasive plants: best management practices**

#### Concern Statement:

Suggested public outreach and education on invasive plants and potential best management practice measures.

#### Forest Service Response:

Because of public interest, substantial public outreach and education on invasive weeds began during the scoping and public involvement phase of POW LLA Project (including a volunteer effort to manually remove weeds). Education by the Forest Service and others on invasive plants has been ongoing and will continue. In addition, washing equipment is part of an integrated invasive plant approach already in place in the Forest Service, laid out in the Tongass Weed Best Management Practices (see DEIS Appendix A p. A-19). In this document, the Forest Service has over 40 Weed Best Management Practices that are considered and used on a case-by-case basis to mitigate for the spread of invasive plants caused by programmed activities. These may be reviewed in the administrative record in a document described by Krosse (2017) entitled “*Guidance for Invasive Plant Management Program, Tongass National Forest*”.

### **Invasive plants: treatments**

#### Concern Statement:

The analysis was not inclusive of all treatment methods, including non-chemical methods (manual, mechanical and biological controls).

#### Forest Service Response:

The EIS and associated references in the administrative record provide a thorough analysis on the effects of manual and mechanical (e.g. non-chemical) treatment measures for invasive plants in Alternatives 1, 2, and 5. Approval for introduction of non-native biological agents is a state function. Biological control methods for treating invasive plants is outside the scope of analysis because no biological agents have been approved by the State of Alaska.

### **Syracuse Environmental Research Associates, Inc. Risk Assessment**

#### Concern Statement:

Commenter suggests that the Risk Assessment done by SERA was flawed, biased and ignored existing data.

#### Forest Service Response:

Syracuse Environmental Research Associates, Inc. (SERA, Inc.) has prepared risk assessments for the USDA Forest Service, Office of Forest Health, since 1995 [USDA/FS Contract No. 53-3187-5-12]. In addition, SERA, Inc. has prepared various other risk assessments for both the Forest Service and USDA/APHIS since 1990. A complete description of the methods used by SERA, Inc. in the conduct of these risk assessments is provided in the Project Record (see SERA MD 2007-01a).

## Appendix D

SERA was contracted by the US Forest Service to produce a risk assessment looking at potential risk of herbicides to workers, the public, and other resources, such as water, aquatic organisms and terrestrial organisms. These studies were not a piece of original experimental research per se, but rather a meta-analysis looking at the existing body of data on herbicides to assess their potential risk to humans and other environmental factors. As such, the Risk Assessments include the most comprehensive review and summation of peer-reviewed science on the topic. Monsanto had no involvement, monetary or otherwise, in the production of the SERA Risk assessments.

The risk assessments prepared by SERA consist of analyses of both human-health effects and ecological effects to support an assessment of the environmental consequences of the use of various chemicals in Forest Service programs. In this context, support does not imply that any attempt is made to bias analyses toward making the chemicals look safe. To the contrary, the Forest Service has accepted and often insisted on the use of very conservative methods both in the assessment of exposures as well as consequences. These methods are detailed in the document SERA MD 2007-01a. In addition, risk assessments include the presumption that use of chemicals will adhere to label requirements. Furthermore, following Forest Service policy (implementation of the Pesticide Use Proposal (PUP) process and permitting or regulatory requirements) comprise the many layers of caution included in this project.

The basic philosophy for preparing the risk assessments is that each risk assessment must be totally transparent. If a risk assessment is to be properly reviewed, understood, critiqued, and used, the source of all numbers, the calculations used in generating the numbers, and the assumptions used in manipulating the numbers must be outlined clearly. In some respects, the transparency of a risk assessment is more important than the specific methods or calculations used to prepare it. Risk assessment is a form of analysis that relies on scientific method but is not itself a science. Reasonable individuals may disagree over which of the numerous methods, tools, and approaches should be used to prepare a risk assessment. Often, available information is not sufficient to support one analytical approach over another. Professional judgment must then be used to select the method; in which case, the risk assessment must clearly state which assumptions are used and why. As long as the assumptions are made clear, the quality of the risk assessment may be reviewed and the risk assessment may be critiqued as appropriate and improved in review.

As part of this transparency, the document SERA MD 2007-001a details the methods that are used to prepare risk assessments for the USDA Forest Service. The risk assessments follow the National Research Council of the National Academy of Sciences (NRC 1983) recommendation's approach for risk assessments that are conducted by or for groups within the government. The hazard identification process involves making judgments about which effects are most relevant to the assessment of human health or non-target species. During this process, studies may be eliminated from consideration because they are inherently flawed, or because they are grossly inconsistent with the preponderance of other studies. The pesticide exposure scenarios considered in a risk assessment are determined by the application method and the chemical and toxicological properties of the compound.

Variability and uncertainty may be dominant factors in the risk assessment; these factors are delineated in the risk assessments. Within the context of a risk assessment, the terms variability and uncertainty signify different conditions. In general, variability and uncertainty can be distinguished from each other depending on the state of knowledge or information. Variability reflects the knowledge of how things may change.

There are many commercial databases that were used to search the published literature. Initially, SERA conducted on-line searches of TOXLINE (including PubMed) and AGRICOLA. These two data bases identify most of the relevant published literature. Other supplemental searches were

conducted using other commercial data bases. TOXLINE (Toxicology Literature Online) is a bibliographical database constructed by the U.S. National Library of Medicine (NLM). The database covers the pharmacological, biochemical, physiological, and toxicological effects of agricultural and industrial chemicals, drugs, and several other classes of specialty chemicals. TOXLINE is a collection of databases derived from BIOSIS (up to 2002), National Library of Medicine, American Society of Hospital Pharmacists, National Institute for Occupational Safety and Health, Environmental Mutagen Information Center, Environmental Teratology Information Center, and U.S. Environmental Protection Agency. Sources for the BIOSIS sub-file include journal articles, reviews, reports, and meeting papers from 1970 to the present. The sources of information in TOXLINE include journal articles, letters, meeting abstracts, monographs, research and project summaries, technical reports, theses, and unpublished materials from 1962 to the present. Other sources of data were also included in the risk assessments (SERA MD 2007-001a).

For the most part, the risk assessments are based on primary literature, either from the open or published literature or the FIFRA files (See SERA MD 2007-001a, Section 1.3.1.2). In some cases, however, credible reviews may be used directly as both a source of information and as the basis for the risk assessment. Conducting a full risk assessment on some agents may not be feasible based on resource limitations. In addition, some agents may be the subject of extensive reviews and risk assessments by other agencies or organizations and it simply would not make sense to duplicate the effort. In general, credible reviews are limited to groups such as the U.S. EPA, the World Health Organization (WHO), and the Agency for Toxic Substances and Disease Registry (ATSDR).

The U.S. EPA has conducted a very large number of reviews on pesticides and industrial chemicals that may be used in pesticide formulations. Because of the unique role and legislative mandate of the U.S. EPA in the conduct of risk assessments that are typically subject to extensive review and deliberation, the Forest Service will often defer to the U.S. EPA on evaluation and selection of studies used in the dose-response assessment for both human health and ecological effects. This allows Forest Service risk assessments to focus the analysis of uses of the agent that are specific to the program activities of the Forest Service.

### **Herbicides: full disclosure in alternatives where herbicides are not mentioned explicitly**

#### **Concern Statement:**

By not explicitly discussing herbicide use in Alternatives 1, 2 and 5 we are leaving open the possibility of using them, and as such could be liable for reckless endangerment.

#### **Forest Service Response:**

Only Alternative 3 considers the use of herbicides. Unless explicitly discussed, an alternative is limited only to the proposed actions directly addressed. The Forest Service uses the best available science to inform our analysis and the ultimate decisions that are made for the Proposed Action. The deciding official is authorized to select any of the alternatives presented in the DEIS, including a combination of alternatives. It is possible that if a non-herbicide alternative (Alternatives 1, 2, or 5) is selected in the FEIS, elements of other alternatives may be included in the final selected alternative as long as the effects have been fully analyzed and disclosed. In addressing herbicide use specifically, of any government agency, NGO or private entity, the Forest Service operates under the strictest and most conservative regulations, permitting and regulatory requirements including adhering to label requirements, as well as a comprehensive policy which guides and monitors the use of chemicals (e.g. the Pesticide Use Proposal (PUP) process). Combined, with the addition of design features, which are

## Appendix D

additional mitigation measures for avoiding impacts to natural resources and human health, the analysis provided in Alternative 3 comprises many layers of caution in use of herbicides included in this project.

Alternative 3 provides for the opportunity to use any of the three proposed herbicides: glyphosate (aquatic formulations only), imazapyr and aminopyralid. Each chemical will be considered for specific species in specific locations prior to project implementation. The analysis provides the Forest Service the option to use the most effective treatment tool available, which may or may not include the use of herbicides. In other words, manual and mechanical treatments may be the preferred method of treatment, or if a chemical is deemed most effective, glyphosate may or may not be the preferred herbicide to use at a particular site. Each site and its environmental conditions, as well as risks of exposure to humans and non-target organisms, will be considered on a case-by-case basis. However, the final analysis of no significant effect for any of the three proposed herbicides allows for their use if deemed appropriate.

### **Herbicides: no herbicide use**

#### **Concern Statement:**

Favors no use of herbicides.

#### **Forest Service Response:**

While Alternative 3 includes the use of herbicides, this action provides one tool among many (that do not include use of herbicides) in continuing to fulfill Forest Service policy of managing invasive species. We will continue our approach of using manual and mechanical methods and would only use herbicides when determined to be the most effective means available (effectiveness also includes cost effectiveness). In practice, we will likely use more than one treatment tool to eliminate or contain an infestation. For example, we may begin a treatment for a particular infestation in year 1 by using one of the three herbicides considered, followed in year 2 with follow-up manual or mechanical treatments once the infestation is reduced to a reasonable size that can be managed using non-chemical treatment methods. Use of any chemical will follow strict federal safety regulations, and will adhere to chemical label guidelines on application and dilution rates laid out in Alternative 3. Further, the Pesticide Use Proposal (PUP) process and permitting or other regulatory requirements comprise the many layers of caution included in this project, as well as a full array of additional levels of caution described as project design features for each resource (see Activity Card 35: Invasive Plant Treatments – Herbicidal).

### **Herbicides: karst ecosystems**

#### **Concern Statement:**

Use of herbicides in karst ecosystems were not fully analyzed and did not consider the transport of subsurface water, which occur in karst topography.

#### **Forest Service Response:**

Chapter 3 of the DEIS describes the karst ecosystem (Karst section p. 221) in the Project Area, including a general description of subsurface water movement. The discussion of herbicide retention, transport and degradation of aquatic resources (e.g. water quality, sedimentation and aquatic organisms) are fully discussed in the DEIS Chapter 3 (Issue 1: Invasive Plant Management including discussion of potential effects of herbicide on human health, hydrology and aquatic organisms,

starting on p. 58) and reference documents in the Project Record (e.g. resource reports). The analysis uses risk assessments for each of the three chemicals provided by an independent researcher (SERA risk assessments), which includes a comprehensive evaluation of the most recent literature available.

The effects of water quality, retention in the soil, percolation rates and ultimate presence **in both surface and underground water systems** are addressed by evaluating exposure scenarios under the proposed application rates in comparison to toxicity levels for humans, including workers and the general public who may consume the water as well as wildlife (birds, bees, and larger mammals) and fish (and other aquatic organisms) that may also consume or be exposed to any contaminated water. Exposures are evaluated based on concentration levels of the chemical under typical application rates (e.g. label instructions). Based on the limited amount of applications proposed within the karst ecosystem (approximately 130 acres of infestation within high, medium and low vulnerability karst, or slightly over 5 percent of the total infestation acres on POW Island), the potential for herbicides to affect aquatic organisms and water quality is low (in both surface and subsurface waters). This conclusion is consistent with the wide breadth of literature provided in the SERA risk assessments. Only aquatic-approved formulations of glyphosate and imazapyr (aminopyralid is not currently formulated as such) are being considered/approved in this EIS (See Activity Card 35 [Appendix A]).

As outlined in the Implementation Plan (Appendix B, page 13), each site where any treatment is proposed will undergo a comprehensive process that includes development of a weed management plan that then is reviewed by IDT resource specialists. Where karst is concerned, the plan would need approval from a certified Geologist that may include specific recommendations for mitigation measures. Any sites where herbicide use is proposed will additionally require a Pesticide Use Proposal (PUP) that is then further reviewed by the Regional Pesticide Use Coordinator and approved by the Regional Forester or other delegated official before implementation.

### **Herbicides: human health**

#### **Concern Statement:**

The analysis did not specifically address the effects of herbicides on human health, in particular the linkages to chronic diseases such as Parkinson's disease and cancer.

#### **Forest Service Response:**

Risk Assessments referenced in the EIS and located in the Project Record address toxicity levels related to human health, such as endocrine system, oral ingestion, inhalation, dermal (skin) exposure, and eye effects. Many studies cited in the SERA risk assessments also discuss relationships of chemical exposure to chronic diseases such as Parkinson's disease. The conclusions in our analysis were consistent with the risk assessments.

The commenter mentions several studies, but often fails to reference the studies specifically, therefore we cannot comment on the specific studies mentioned. With regard to the carcinogenic properties of glyphosate specifically, the SERA risk assessment provides a detailed analysis of the literature related to this topic. The glyphosate risk assessment (Durkin 2011) discusses the references provided by the commenter. Included is a discussion of the effect of AMPA on pages 1-1, 3-5, 3-24-26, and 4-7 of the risk assessment. The conclusion in our analysis is consistent with the findings in the risk assessment.

## **Appendix D**

### **Herbicides: cost of potential impacts to human health and environment**

#### **Concern Statement:**

The analysis does not consider the cost associated with potential impacts to human health and the environment.

#### **Forest Service Response:**

The EIS and the referenced cost analysis resource report (Krosse 2018a) in the Project Record provide detailed analysis of costs associated with the use of all treatment methods. This analysis is based on assumptions for the amount of treatment acres to be treated annually over a period of 15 years. These treatment costs are based on average costs per acre by method over the past 4 years on the Tongass National Forest. The costs of potential impacts to human health and the environment were not considered because of the conclusion that there would be no adverse effects of herbicides to human health or the environment based on exposure and dosages proposed for treatment.

Letters from Federal, State, and Local Agencies and Elected Officials



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
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Seattle, WA 98101-3140

OFFICE OF  
ENVIRONMENTAL REVIEW  
AND ASSESSMENT

June 18, 2018

Delilah Brigham  
Thorne Bay Ranger Districts  
Tongass National Forest  
1312 Federal Way  
Thorne Bay, Alaska 99919

Dear Ms. Brigham:

The EPA has reviewed the U.S. Forest Service's draft Environmental Impact Statement for the Prince of Wales Landscape Level Analysis Project (EPA Region 10 Project Number 16-0066-AFS/CEQ Number 20180079) pursuant to Section 309 of the Clean Air Act and the National Environmental Policy Act.

The DEIS analyzes various projects at the landscape level within the Thorne Bay and Craig Ranger Districts for the benefit of multiple resources. The purposes of the analysis are to improve forest ecosystem health, support community resiliency and provide economic development. Possible projects may include, but are not limited to, timber stand improvement activities and timber harvests; transportation management activities; in-stream restoration work and riparian thinning; improvement of fish passage and water quality; improvement of fish and wildlife habitat; and development and improvement of recreation infrastructure.

We understand these projects will be implemented over a 15-year timeframe and support the proposed landscape-level approach. We agree with the Forest Service's goal to work with the local forest collaborative team and ensure that a wide-range of stakeholders and user groups are involved in providing input to project specific activities. Overall, we find the DEIS to be a comprehensive document and appreciate the inclusion of the *Activity Cards* (Appendix A) and *Implementation Plan* (Appendix B). This level of detail provides an understanding of the breadth of activities to promote ecosystem health and the associated applicable guidelines (e.g., riparian thinning and buffer widths). In addition, the implementation process described clearly links the EIS to project specific work. We also commend the Forest Service for engaging youth and soliciting input regarding the aspects of the Tongass National Forest that they find important.

Based on our review, we are rating the DEIS as Lack of Objections (LO). An explanation of the EPA rating system is enclosed. Thank you for this opportunity to comment. If you have any questions, please contact Lynne Hood of my staff at 208-378-5757 or by email at hood.lynne@epa.gov, or you may contact me at 206-553-1841 or nogi.jill@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Jill A. Nogi".

Jill A. Nogi, Manager

Environmental Review and Sediment Management Unit

Enclosure:

1. US Environmental Protection Agency Rating System for Draft Environmental Impact Statements

## Appendix D

### U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action\*

#### Environmental Impact of the Action

##### **LO – Lack of Objections**

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

##### **EC – Environmental Concerns**

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

##### **EO – Environmental Objections**

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

##### **EU – Environmentally Unsatisfactory**

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

#### Adequacy of the Impact Statement

##### **Category 1 – Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

##### **Category 2 – Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

##### **Category 3 – Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

Department of Fish and Game

DIVISION OF HABITAT  
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June 14, 2018

Delilah Brigham  
POW LLA Project Leader  
P.O. Box 19001  
Thorne Bay, Alaska 99919

RE: Prince of Wales Landscape Level Analysis  
Draft Environmental Impact Statement

Dear Ms. Brigham:

The Alaska Department of Fish & Game (ADF&G) has reviewed the U.S. Forest Services (USFS) Draft Environmental Impact Statement (DEIS) for the Prince of Wales Landscape Level Analysis Project (POW LLA) on the Thorne Bay and Craig Ranger Districts; on Prince of Wales and surrounding islands.

The purpose of the POW LLA is to improve forest ecosystem health on Craig and Thorne Bay Ranger Districts, help support community resiliency and provide economic development. Our comments on the DEIS are as follows:

**Fisheries**

Fish Stream Crossing Structures

The issue of red pipes has been ongoing for many years. Efforts have been, and are being, made to prioritize red pipes on Prince of Wales Island. According to USFS data, hundreds of miles of fish habitat are currently blocked by fish passage structures which do not provide efficient fish passage. Replacing or removing all deficient stream crossing structures blocking fish passage should be a priority for all existing roads included in the POW LLA. For any new road construction, crossing structures must be designed to provide efficient fish passage.

Fish Habitat Improvements

Alternatives 2 and 5 propose fish habitat improvement methods such as lake fertilization (2&5) and egg incubation boxes (2). Egg incubation boxes are not a form of fish habitat improvement but are a method of propagation. The consideration of egg incubation boxes as a fish habitat improvement method should

## Appendix D

Ms. Delilah Brigham

June 14, 2018

be deleted from Alternative 2. Lake fertilization, although a potential activity that could boost the food chain in a natural system requires extensive scientific research and monitoring to determine if 1) the process will have any benefits to the system and 2) if the process will have any negative impacts to the existing fish and fish habitat.

### USDA Forest Service Agreement 14-MU-11100100-015

All projects requiring work below the ordinary high water of all fish-bearing streams would require concurrence under the Memorandum of Understanding Between ADF&G Habitat Division and the USDA, Forest Service, Alaska Region.

### **Wildlife**

Although old-growth associated or dependent species such as American martens, Queen Charlotte goshawks, and Prince of Wales flying squirrels will be negatively affected by additional harvest of old-growth forest, long-term effects on Sitka black-tailed deer and Alexander Archipelago wolves are of greatest concern to ADF&G.

Deer are the most popular big game species in Southeast Alaska, an important and highly valued food resource for residents of GMU 2, and the primary prey of wolves. Since 2016 local hunters have complained about difficulty finding sufficient deer to harvest and in April 2018 the Federal Subsistence Board voted to reduce non-federally qualified deer hunter bag limit from four bucks to two bucks. Recent winters have been mild, and many hunters attribute their difficulty harvesting deer to predation by wolves and the low numbers of deer supported by extensive stands of young-growth forest adjacent to much of the Prince of Wales Island road system.

The Alexander Archipelago wolf has twice been petitioned for listing under the Endangered Species Act (ESA). Although both petitions were found not warranted and the wolf population has rebounded from a recent low estimated at 89 animals, future ESA petitions seem likely. Because forest management decisions have irreversible and long-term consequences for wolves and their primary prey, those decisions should anticipate future ESA listing petitions. Deer are the primary prey of wolves, and a high proportion of GMU 2 residents rely on deer as a food source. Consequently, many local residents view wolves as competition for deer and argue for reducing the population to very low numbers. To be viewed as successful, forest management in the POW LLA area will need to manage for habitat capable of supporting a robust deer population that provides for human harvest, particularly deer accessible to road-based hunters, and can sustain a harvestable wolf population.

Our comments are separated by the themes of deer and wolf habitat; however, the two are related because supporting actions to conserve the quality and extent of deer habitat would be beneficial to maintaining a sustainably harvestable wolf population and deer hunter satisfaction.

Ms. Delilah Brigham

June 14, 2018

### Deer Habitat

To maintain and enhance deer habitat, we support minimizing old-growth harvest and maximizing the proportion of young-growth in the total timber harvest. Thinning or other young growth treatments such as patch cuts should occur before 25 years post-harvest and should be designed to delay stem exclusion to the maximum extent possible and to enhance deer forage generation. Maintaining forage production in young growth stands likely has little benefit if slash discourages deer from using treated stands. Any treatment of young growth intended to benefit deer should carefully consider slash treatments and the need to facilitate movement of deer within and among favorable habitat patches.

Research on both deer and wolf habitat selection indicated that regenerating clearcuts (<25 years post cut) are selected seasonally, but selection is dependent on winter snow depth. Gilbert et al. (2017) demonstrated that deer selected regenerating clearcuts but avoided older closed canopy second-growth (>25 years post cut) and high-volume old growth during low snow winters. However, during deep snow winters, deer avoided regenerating clearcuts and preferred old-growth forests. These results emphasize the importance of maintaining old growth stands throughout the POW LLA area as critical winter deer habitat. Higher volume productive old-growth forest below 800 feet elevation on south facing slopes should be preserved.

Similarly, wolves in GMU 2 selected regenerating clearcuts during fall and winter in addition to low-volume old-growth forests. Regenerating clearcuts (<25 years post cut) were avoided during denning season and summer. Wolves consistently avoided both thinned and unthinned second-growth forest (>25 years post cut) throughout the year, suggesting that the value of regenerating clearcuts as wolf habitat is short-lived. Importantly, closed canopy second-growth forest has little value for wolves, and the thinning treatments applied to date in the POW LLA area do not appear to have been effective at enhancing deer or wolf habitat. Improved young-growth treatments are needed and should occur early and often to extend the period of favorable conditions for both deer and wolves.

### Wolf Habitat

#### Dens:

ADF&G research supports the following recommendations of the Interagency Wolf Technical Committee that are included in alternatives 3 and 5:

Protect the integrity of known wolf dens (active and inactive) with noncircular buffers generally centered around the den in consultation with ADF&G and the United States Fish and Wildlife Service (USFWS).

- Retain roadless, gently sloping ( $\leq 25$  percent) productive old-growth forest within 330 feet of major lakes and streams (defined in Wolf Technical Committee Report) to preserve denning habitat and den-site options for wolves.
- Apply a no disturbance buffer of 2,400 feet in radius (about 0.5 mile) around reproductive wolves at den sites as suggested in Preliminary Wolf Buffer Analysis (ADF&G 18 Oct. 2017).

## Appendix D

Ms. Delilah Brigham

June 14, 2018

Specifically, our research (Roffler et al. 2018) indicates that wolves select low-volume old-growth forest and open vegetation habitat types (e.g., meadows, grasslands, and muskegs) at low elevation and relatively flat terrain. During denning season, wolves avoided areas of relatively higher road densities ( $> 0.772 \text{ km/km}^2$ ). These results underscore the importance of old-growth forests in areas of low human disturbance for wolf denning habitat.

Our current and previous research (Person and Russell 2009) also support the recommendation of the Interagency Wolf Technical Committee to protect habitat surrounding all documented wolf dens in perpetuity. We found many dens used during 2012–2016 had also been used during 1995–2003. Additionally, we found that wolves used the same den (or a den nearby, e.g.,  $\sim 100 \text{ m}$ ) for multiple sequential years. These results suggest that dens have long-term value for wolf reproductive activities and should be protected so they remain attractive to wolves.

We support excluding any type of development activity within a 0.5 mile-radius of known dens but emphasize that this distance should be considered the minimum necessary. Disturbance buffers of 1 – 6 miles radius have been recommended to reduce disturbance surrounding wolf den sites in British Columbia and the Canadian and U.S. Rocky Mountains (Chapman 1977, Matteson 1993, Fritts et al. 1994, Paquet and Darimont 2002). Those recommendations were derived from observations of wolf behavior and habitat characteristics of den sites. To remain viable as places to successfully raise pups, denning wolves require access to sufficient prey in proximity to the den. During denning season members of reproductive packs foraged on average within 6.8 miles of the den (Roffler and Gregovich, in prep.). Disturbance and foraging buffer protections should be extended whenever possible and designed to maximize inclusion of the greatest quantity of high-quality deer habitat (e.g., old-growth forest).

The DEIS alternatives recommend closing some roads to benefit wolves. Closing specific roads could minimize the potential for disturbance around dens and would limit access for wolf hunters and trappers. However, collared wolves in GMU 2 demonstrated a seasonally flexible response to roads by avoiding areas with a high density of road during the denning season and selecting areas with higher road densities during fall and winter (Roffler et al. 2018).

**Young Growth Treatments** – Although young growth treatments have been shown to reduce the decline in deer forage availability resulting from post-clearcut forest succession (Alaback 2010, Cole et al. 2010, Suring 2010, Hanley et al. 2013), population-level benefits or improvements to deer vital rates resulting from young growth treatments remain poorly documented and are likely nullified by deep snow. Farmer et al. (2006) also found that deer using young clearcuts during low snow periods had an increased risk of predation by wolves and that young deer using thinned stands suffered an increased incidence of mortality due to malnutrition. Considering the importance of deer to hunters and to supporting a sustainably harvestable wolf population and that the effects of clearcutting old-growth

Ms. Delilah Brigham

June 14, 2018

forest on forage availability for deer are essentially irreversible, we encourage using very conservative assumptions about the density of deer supported by treated or untreated young-growth forest.

**Managing Deer Harvest by WAA** – The DEIS suggests that in WAAs where deer harvest exceeds 10 percent of deer habitat capability season length or bag limit may be reduced. Managing deer at the scales smaller than GMUs or subunits is usually impractical. In most cases, estimates of harvest at the scale of a WAA are also unreliable.

**Dispersal of Animals from Harvested Stands** – The DEIS contends that animals with greater dispersal capabilities, including migratory deer, will be less effected by timber harvest compared to those with lower dispersal capabilities. That contention is not supported by the literature and is flawed because it assumes there is suitable unoccupied habitat into which animals displaced by timber harvest can disperse. Other parts of the DEIS assume deer are at carrying capacity. Further, ADF&G research has found that deer in GMU 2 and GMU 4 have high site fidelity, low dispersal rates, and rarely disperse beyond the watershed in which they were born (Colson et al. 2013, Schoen and Kirchhoff 1984). Working on Hecate Island Farmer (2002) found that does and fawns did not disperse in response to timber harvest.

**Deer Hunter Satisfaction** – The DEIS recognizes that deer are a very important food resource to local residents and that one likely effect of timber harvest is increasing competition among hunters for deer in declining suitable and huntable habitat. A high proportion of GMU 2 deer hunters access hunting opportunity using the Prince of Wales Island road system. Consequently, many residents and users of the POW LLA area will judge the success of forest management by the number of deer they are able to harvest within walking distance of roads. The DEIS maintains that the proposed additional harvest of old-growth forest will only reduce the HCI for deer in one biogeographic province by five percent. We cannot judge if that is the case but recommend that the Final EIS include a detailed discussion of measures to maintain and improve deer habitat and hunting opportunity adjacent to the road system. Ideally that discussion would include a comparison of the long-term and widespread economic benefits of deer hunting to the short-term and often narrowly-focused economic benefits of timber harvest.

### **Alaska National Interest Conservation Act (ANILCA)**

#### **Consideration of activities in Wilderness**

We are concerned that the DEIS precludes consideration of activities in wilderness solely because of bureaucratic procedures, despite allowances for those activities under ANILCA. The potential activities identified by the POW LLA Team and/or the public within wilderness include a three-sided shelter within the South Prince of Wales Wilderness; development, improvement, and/or enhancement of maintenance to the Karta Cabin and trail; and various fish habitat improvement projects in the Karta River Wilderness and the South Prince of Wales Wilderness. The DEIS states, “These proposals were

## Appendix D

Ms. Delilah Brigham

June 14, 2018

not included in the DEIS because the authority to make these decisions is reserved to the Chief of the Forest Service or the Regional Forester and because they require additional procedures beyond those required by the National Environmental Policy Act. They may be analyzed in the future as separate projects” (p. 22).

ANILCA Section 1315(c) and (d) allow for maintenance of existing cabins and construction of new cabins in wilderness, and ANILCA Section 1315(b) allows for fishery research, management, enhancement, and rehabilitation activities in national forest wilderness. The purpose of additional procedures such as Minimum Requirements Analysis and the activity-specific considerations in the Alaska Region Supplement to FSM chapter 2320 (R-10 2300-2008-2) is to protect wilderness character while administering the area and allowing for legislatively authorized uses such as those in ANILCA, not to prevent consideration of activities altogether. Also, according to the Alaska Region Supplement to FSM chapter 2320, the Forest Supervisor—not the Chief or Regional Forester—has the authority to approve temporary facilities needed in connection with fisheries research, management, or enhancement/rehabilitation projects. We request the POW LLA consider activities in wilderness as needed and amend the decision trees in Appendix B as to include wilderness considerations accordingly.

### Winter Sports Access Area adjacent to Karta River Wilderness

The Effects Analysis for the action alternatives is written as if snowmachine use is not allowed in wilderness, but snowmachine use for traditional activities is allowed under ANILCA Section 1110(a). We request the language on pages 258-259 about “snowmobile incursions” and “signage, and increased patrol of the boundary” be deleted, and ANILCA’s allowance for snowmachines in wilderness be acknowledged.

### Activity Cards—Wilderness

The Appendix A Activity Cards as written may unnecessarily limit opportunities for public access to wilderness. The Activity Cards’ Resource Specific Guidelines for Wilderness contain boilerplate language about the need for a Minimum Requirements Analysis (MRA) but lack the more specific direction in ANILCA, FSM 2300, the Alaska Region Supplement to FSM chapter 2320 (R-10 2300-2008-2), or the Forest Service Wilderness Stewardship Desk Guide regarding the activities. Because of their sole focus on the MRA, the Guidelines imply that the activity must be necessary to “protect or restore the wilderness resource,” yet the Forest Service guidance for some activities is aimed at furthering the recreational purpose of wilderness per the Wilderness Act rather than simply protecting or restoring the wilderness resource, and ANILCA has other specific allowances in wilderness. We recommend providing context for the MRA boilerplate language and briefly describing the specific Forest Service guidance for the following activities:

- Card 25 Stream Crossing Structures: Reference the four conditions under which bridges are allowed under FSM 2323.13f (i.e. no other crossing reasonably available, safety, prevent bank damage, frequent floods).

Ms. Delilah Brigham

June 14, 2018

- Card 38 Trails: State that trails are an acceptable improvement in wilderness per FSM 2323.13f. Reference the trail standards for wilderness and the importance of trails for visitor use of wilderness as described in the Forest Service Wilderness Stewardship Desk Guide (p. 82).
- Card 40 Access Points for Kayak and Canoe Launches: State that trails are an acceptable improvement in wilderness per FSM 2323.13f. Reference the trail standards for wilderness and the importance of trails for visitor use of wilderness as described in the Forest Service Wilderness Stewardship Desk Guide (p. 82).
- Card 45 Cabins and Three-sided Shelters (Recreation Structures): Reference the requirements of ANILCA and the Alaska Region Supplement to FSM chapter 2320 (R-10 2300-2008-2, 2323.13b):
  - Section 1315(d) of ANILCA provides that a limited number of new public use cabins and shelters may be built and maintained in wilderness where necessary for public health and safety.
  - Decisions to build new cabins or shelters will be made through the NEPA process.
  - A health and safety analysis is required.
  - Congressional notification is required.
- Card 46 Cabin Decommissioning: Reference the requirements of ANILCA and the Alaska Region Supplement to FSM chapter 2320 (R-10 2300-2008-2, 2323.13b):
  - Decisions to remove existing cabins or shelters will be made through the NEPA process.
  - A health and safety analysis is required.
  - Congressional notification is required.

### Sustainable Recreation Management Map

The Karta River cabin is either missing from the map or covered by a different symbol.

### **Evaluation of Alternatives**

Alternative 1 – This is the no action alternative. Because it does not involve additional harvest of old-growth forest, it would have no effect on wildlife populations compared to existing conditions. Stream restoration and fish passage improvement projects have been ongoing for many years. It is assumed, under the no action alternative, that these types of projects would continue to occur on a project by project basis due to the need to provide for fish passage and to improve habitat conditions previously impacted by timber harvest.

Alternative 2 – This is the proposed action. This alternative envisions the highest level of old growth harvest, nearly double that of Alternative 3 and four times that of Alternative 5. Consequently, it will result in the greatest loss of productive wildlife habitat and have the greatest effect on populations that depend on that habitat. Considering that significant additional old-growth harvest is anticipated on non-federal lands in the POW LLA area and that the full cumulative effects of that old growth harvest on

## Appendix D

Ms. Delilah Brigham

June 14, 2018

wildlife populations and wildlife users will not be realized for several more decades, ADF&G encourages a more conservative approach.

Alternative 3 – This alternative proposes logging about half the old growth as Alternative 2 and about 75% of that old growth would be in partial harvest units using helicopter yarding. This alternative also includes selected recommendations of the Interagency Wolf Technical Committee to conserve wolf and deer populations. This alternative would result in less loss of old growth wildlife habitat than Alternative 2. Because of the high reliance on helicopter yarding in remote sites, it would also have the least effect of all action alternatives on deer habitat along the road system.

Alternative 5 – This is the action alternative with the least effect on old growth-associated wildlife and users of that wildlife. It allows about half the old growth harvest of Alternative 3. However, compared to Alternative 3 about 1,000 more acres of that harvest would be by clearcut along roads, rather than partial harvest with helicopter yarding. It also incorporates all recommendations of the Interagency Wolf Technical Committee. Of the action alternatives considered ADF&G believes Alternative 5 would have the fewest detrimental effects on old growth-associated wildlife populations and users of those populations.

### General Comments

ADF&G believes that the POW LLA should be just that, an analysis of the resources on Prince of Wales and surrounding islands, and not an implementation project. This broad landscape assessment should be a non-decision-making part of a step-by-step process which could result in individual Forest Plan implementation projects as required under NEPA.

Sincerely,



Mark Minnillo

Email Cc: Al Ott, ADF&G, Fairbanks  
Jackie Timothy, ADF&G, Juneau  
Tom Schumacher, ADF&G, Juneau  
Ashley List, ADF&G, Anchorage  
Craig Schwanke, ADF&G, Craig  
Boyd Porter, ADF&G, Ketchikan  
Chris Maisch, ADNR, Juneau

Ms. Delilah Brigham

June 14, 2018

Erin Knoll, USFWS, Anchorage

## Appendix D

Ms. Delilah Brigham

June 14, 2018

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Ms. Delilah Brigham

June 14, 2018

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## Appendix D



### United States Department of the Interior

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June 15, 2018

Mr. Earl Stewart  
Forest Supervisor, Tongass National Forest  
U.S. Forest Service  
648 Mission Street  
Ketchikan, Alaska 99901

Subject: Prince of Wales Landscape Level Analysis Project Draft Environmental Impact Statement; Craig and Thorne Bay Ranger Districts, Tongass National Forest, Alaska

Dear Mr. Stewart:

The U.S. Department of the Interior (DOI) has reviewed the U.S. Forest Service's (USFS) Prince of Wales Landscape Level Analysis Project (POW LLA) Draft Environmental Impact Statement (EIS) for the Tongass National Forest, Craig and Thorne Bay Ranger Districts. Our comments and recommendations are provided in accordance with the Fish and Wildlife Coordination Act (48 Sta. 401, amended; 16 U.S.C 661 *et seq.*) and the National Environmental Policy Act ((42 U.S.C. 4321-4347 1969, NEPA) with implementing regulations (40 CFR parts 1500-1508)).

The DOI's U.S. Fish and Wildlife Service (USFWS) participated in early coordination with the USFS on this project and provided resource recommendations by letter dated December 23, 2016, as part of project scoping. The USFWS was also an active member of the Wolf Technical Committee at the request of the USFS. As a member of the Federal Subsistence Board, the USFWS retains an interest in the Alexander Archipelago wolf as a federally managed subsistence species.

The purpose of the POW LLA is to improve forest ecosystem health on the Craig and Thorne Bay Ranger Districts, support community resiliency, and provide economic development through an integrated approach to meet multiple resource objectives. We understand that the project is intended as a mid-level planning tool, not a specific proposal to undertake an action. Our recommendations, therefore, are focused at a landscape scale and would apply to a broad range of project types that may be considered under the plan.

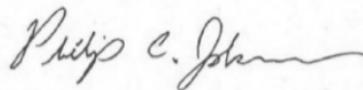
The DOI recommends that the USFS include the following measures in the alternative selected for implementation in the Final EIS to help ensure continued ecological function in areas of ongoing management on Prince of Wales Island:

- Incorporate timber management techniques that provide for a range of successional forest stages on fine spatiotemporal scales for Sitka black-tailed deer habitat management within the selected alternative. The Wolf Technical Committee (2017) has developed specific habitat management techniques and recommendations to operationally establish a broad range of forest successional stages.
- Adjust the size, spacing, and composition of the Old Growth Reserves (OGR) as outlined by the Interagency Review Team (IRT 2018) to ensure design criteria are met. We consider the loss of old growth connectivity in the Sarkar/Naukati area (Value Comparison Unit 5570) caused by the recent Alaska Mental Health Trust Land transfer to be the highest priority OGR adjustment. We recommend that lands in adjacent Value Comparison Unit 5542 be designated as OGR to provide habitat connectivity between the Sarkar/Honker Large OGR and islands to the west, as described in IRT 2018 and associated maps.
- Incorporate road management recommendations outlined by the Wolf Technical Committee (2017) into the USFS's selected alternative. Summarized here, these recommendations were designed to support healthy wolf populations and provide sustainable subsistence opportunities.
  - Maintain a road density no greater than 0.7 mile per square mile within Game Management Unit 2 (GMU 2) Wildlife Analysis Area.
  - Close all roads currently administratively closed by omission from Motor Vehicle Use Maps for GMU 2.
  - Effectively close all "temporary roads" when the purpose of the roads are met.
  - Use interagency and public input when prioritizing roads for closure based on wildlife vulnerabilities in future Access Trail Management or NEPA planning processes.

The DOI recognizes that these actions have been evaluated as elements of various alternatives in the Draft EIS, but also recommend that they be included in the selected alternative and fully described in the Record of Decision. These actions will help sustain sensitive wildlife important for subsistence use and ecological function on a landscape that continues to provide a range of forest products and services.

The DOI appreciates the opportunity to provide comments and the USFS's collaboration with the USFWS, which looks forward to working with your agency as the project is developed. If you have questions, please contact Mr. Kevin Foley, Fish and Wildlife Biologist with the USFWS, at (907) 271-2788 or [kevin\\_foley@fws.gov](mailto:kevin_foley@fws.gov).

Sincerely,



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Regional Environmental Officer – Alaska

### Literature Cited

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Comments from the Point Baker Community Association on the  
Prince Of Wales Landscape Level Analysis

The Point Baker Community would like to thank Forest Service employees for coming to Point Baker on May 30th to inform and answer questions on new developments in the planning process, in particular the new alternative, alternative 5. At a special meeting of the Council on May 31st it was authorized to submit the following comments.

We would like for it to be noted that we submitted comments previously in December 2017. Our comments at that time pertaining to alternatives 1 through 4 still stand. At this time we direct our comments to the new alternative #5

We can support Alternative 5 with some qualifications.

Provisions we can support are as follows:

Five million board feet of old growth per year for the length of the plan.

No old growth harvest north of the 20 road from Red Bay to Point Baker.

No old growth harvest in the Calder Bay to Port Protection corridor.

Full implementation of the Wolf Habitat Management recommendations.

No use of chemical herbicides for invasive plant management.

Provisions we cannot support, our concerns, and other issues to be considered are as follows:

The amount of young growth proposed for harvest is excessive.

Your stated goal of improving forest ecosystem health will be jeopardized by harvesting 529 million board feet on 36,669 acres of land for several reasons.

Much of the older young growth which will be the first available for harvest is growing on sites which were originally high graded for maximum value. These sites were very valuable fish and wildlife habitat and should be allowed to returned to fully functioning ecosystems naturally.

Much of the older young growth stands are also located on Karst. There should be special protections for Karst topography.

Harvesting 529 million board feet of timber will jump start an industry which will require large timber harvests long into the future, this will not result in a healthy

## Appendix D

forest ecosystem. Nor will this intensive harvest result in good economic outcomes in the long term. An industry geared towards round log export, only robs future businesses of potential high value products that come from allowing trees to mature to an older age.

Concerns about activities in the beach fringes:

Much of the beach fringe in our area was logged in the early years of the pulp contracts and could be available for second harvest during the life of this plan. It is unclear to us how beach fringe will be treated in alternative 5. We do not want there to be any harvest of beach fringe on the northern shoreline of POW. We are beginning to see the fringe return to better habitat conditions naturally and want this to continue.

Climate change and wind throw:

We have seen an increase in severe wind and rain events in recent years resulting in major blowdown occurrences. More consideration needs to be given to wind firming leave strips and buffers along Salmon streams.

There should be no continuation of road-widening and paving north of Whale Pass.

Subsistence:

Subsistence as a way of life is not adequately addressed in the Planning Document. Here in Point Baker we have probably the lowest per capita income of POW communities and one of the highest per capita uses of subsistence resources. Although statistics may not indicate it, all of our residents would agree that we enjoy a very high standard of living.

The village of Point Baker has been in existence for nearly one hundred years. For that length of time we have remained resilient because we have lived in concert with the forest surrounding us. It has provided our food, our shelter, our livelihoods, and our well being. Our collective community consciousness has always been to maintain a balance between *economic* and *ecological* health. Large scale industrialization of the forest threatens this balance. Whether development happens in our back yard or on the rest of the island it's impacts threaten our subsistence way of life.

The EIS states that there is a significant possibility of significant restrictions to subsistence deer harvest in alternatives 2,3,&5. It says that this restriction is necessary to attain the goals of the Forest Plan. We maintain that there are alternatives not explored which that can provide community resilience and stability without jeopardizing well-being, just as our community has demonstrated.

Point Baker Community Association

PO Box 31

Point Baker, AK 99927

The residents of Point Baker are disappointed that no ANILCA subsistence hearings were scheduled during this phase of the planning process. We request that hearings be held here before the record of decision is finalized.

Summary:

The Point Baker Community can endorse portions of alternative 5 but has reservations about other aspects of the alternative. None of the other alternatives are acceptable. We do not think that rejuvenating a timber industry geared towards exporting in the round large volumes of small diameter young growth trees will be good for the long term health of the forest or the local economy. We would like to see a plan which recognizes that old growth forest is irreplaceable and will be extremely valuable to future generations for wood products, habitat , and even more importantly for carbon sequestration. Young growth forest should be harvested at a rate which will encourage value added products to be developed over time while the forest attains a condition closer to old growth.

Thank you for this opportunity to comment.

## Appendix D

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