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## VIA ELECTRONIC MAIL

Dear Ms. Slusser,

Defenders of Wildlife appreciates this opportunity to comment on the Wrangell Island Project Draft Environmental Impact Statement (DEIS). Established in 1947, Defenders is a national, science-based non-profit conservation organization. With more than one million members and supporters nationwide, Defenders is focused on conserving and restoring native species and habitat throughout the country, including on national forests such as the Tongass.

Our comments focus on wildlife issues discussed in the DEIS and other documents in the planning record. In addition to these comments, Defenders has joined the broader comments submitted by Earthjustice and other groups.

## **Summary**

We appreciate the discussion of current conditions and likely impacts to wildlife and habitat from project alternatives presented in the DEIS. Broadly, it appears that prior habitat loss and fragmentation from timber harvest and road building activities has left Wrangell Island in a precarious position in terms of its ability to provide the habitat needed to ensure the continued viability of some wildlife species, especially those dependent on productive old-growth (POG) and high-volume POG habitats such as deer, wolves and marten. That unfortunate history plus current market demand and economic realities make it challenging to design a sensible, responsible timber sale on Wrangell Island that can effectuate both timber production and wildlife protection goals.

The conservation strategy described in Appendix D of the Tongass Land and Resource Management Plan (Forest Plan) is not currently implemented properly on Wrangell Island because some designated old growth reserves (OGRs) contain less than minimum acreages of different habitat types. This project provides an opportunity to modify and refine OGR boundaries to implement the

conservation strategy and the project interagency (IA) team recommended just that, but the alternatives presented in the DEIS ignore these recommendations, leaving the OGRs inadequate to accomplish their intended purpose. Also, a priority watershed that would be protected from logging by the proposed Forest Plan amendment awaiting finalization in just a few months is slated for harvest and should be removed from the project area.

The DEIS evaluates numerous Management Indicator Species (MIS) to estimate overall wildlife impacts from the proposed project, and several of these evaluations raise concerns about wildlife viability. Sitka Black-tailed deer habitat on the island, for example, falls well short of levels considered sufficient to support populations that can meet the needs of humans and predators. The DEIS also does not appear to define critical winter deer habitat, a key factor limiting deer populations, with sufficient precision to support conclusions regarding its adequacy.

The DEIS evaluates impacts to wolves in terms of road density and deer habitat. Current road density is beyond the recommended level to protect wolves, and the proposed action would increase road density significantly. Current and projected road density estimates may also be understated somewhat in the DEIS and we propose refining those estimates in the Final EIS. The combination of high road density and insufficient deer habitat creates a viability concern for wolves on Wrangell Island. This concern was identified in agency scoping comments over five years ago, which should have triggered management actions pursuant to the standards and guidelines for wolves in the current Forest Plan. The Forest Service and agency partners should implement those management actions and present the results in the FEIS.

In some places, the units of measure employed in the DEIS to evaluate impacts do not correspond well with underlying factual information regarding a species or its use of habitat; in these cases we suggest ways that the FEIS can present a clearer picture of likely impacts by modifying the units of measure to better correspond with known information. Unfortunately, it appears likely that this clearer picture will only make the outlook more bleak for old-growth-dependent wildlife.

We thus urge the Forest Service to 1) implement the conservation strategy by modifying OGR boundaries to meet or exceed minimum Forest Plan requirements, and incorporate the interagency team recommendations regarding OGRs into an FEIS alternative; 2) remove the Thom's Lake watershed area from the harvest plan; 3) implement the management actions for wolves described in the Forest Plan standards and guidelines, and add the information generated from those efforts to the FEIS to better inform the analysis of impacts to wolves; and 4) revise some of the DEIS analyses and units of measure to more accurately estimate impacts to specific wildlife species, as detailed below.

## I. Existing Wildlife Habitat and the Conservation Strategy

The DEIS discussion of wildlife habitat buries the lede by ignoring the IA team's extensive evaluation of OGRs in the Wildlife Resource Report and instead solely presenting portions of the

analyses for specific wildlife species. In so doing, the DEIS misses the best opportunity available to improve wildlife habitat characteristics on Wrangell Island by modifying OGR size and composition to meet minimum conservation strategy requirements while improving connectivity. The Forest Plan requires that the biologically preferred alternative for OGRs appear as an alternative in the NEPA analysis; the FEIS must cure this defect. The DEIS also fails to align the timber base for this sale with prescriptions from the forthcoming amendment to the Forest Plan, and should remove areas from Value Comparison Unit (VCU) 4790 that will soon be prohibited from harvest by the Forest Plan.

# A. Expanding OGRs to Meet Minimum High POG, POG, and Overall Acreage Requirements.

Pursuant to the conservation strategy, there are five old growth reserves (OGRs) on Wrangell Island: the Fools Inlet and Thom's Creek "medium" OGRs, and three small OGRs.<sup>2</sup> The intent of the reserve system on the forest is to help ensure the maintenance of well-distributed populations of all old-growth associated wildlife populations on the Tongass, with a focus on species most sensitive to habitat loss and fragmentation.<sup>3</sup>

The two OGRs designated as "medium" on Wrangell Island, the Thom's and Fools Inlet OGRs, do not actually meet the definition of medium OGRs under the 2008 Forest Plan (Appendix D). Medium OGRs should be contiguous landscapes of approximately 10,000 acres including at least 5,000 acres of productive old growth (POG) and at least 2,500 acres of high-volume stratum POG.<sup>4</sup> Both lack sufficient POG and high-volume POG acreage, and the Fools Inlet OGR also falls short in total acreage.<sup>5</sup> An interagency (IA) team with members from the Forest Service, U.S. Fish and Wildlife Service (USFWS), and Alaska Department of Fish and Game (ADF&G) was tasked with, among other things, "augmenting the existing medium OGRs on Wrangell Island so that they would meet the minimum Forest Plan size."

The IA Team did so, recommending additions of high-POG acres to both medium OGRs to bring them up to minimum acreage criteria. For Thom's OGR, the biologically preferred option is to "add acres of high-volume POG south and east of road 6299 adjacent to the existing Thom's Medium OGR." Also, the existing Fools Medium OGR fails to meet minimum acreages for medium OGRs by 756 total acres and 418 high-POG acres; the IA team's recommended addition would be to "connect the Fools Medium OGR and the Earl West Small OGR along Fools Creek, which would enhance the overall north-south connectivity on Wrangell Island. This addition would add low elevation, high-volume POG habitat along Fools Creek."

Compare DEIS at 67-111 with Delabrue, Draft Wildlife Resource Report (WRR), April 22, 2016, at 36-48.

<sup>&</sup>lt;sup>2</sup> WRR at 38.

<sup>3</sup> WRR at 38-39.

<sup>4</sup> WRR at 39.

<sup>&</sup>lt;sup>5</sup> WRR at 40.

<sup>6</sup> WRR at 41.

<sup>7</sup> WRR at 42.

<sup>8</sup> WRR at 43.

Additionally, the IA team evaluated the five small OGRs on Wrangell Island and recommended an important change to Earl West OGR as well as a previously recommended biologically preferable OGR in VCU 5050. Specifically:

The Earl West OGR was originally designed to provide a "stepping stone" along a key landscape travel corridor from the Fools Medium OGR to the north and to the mainland. The roaded portion of the OGR contains high-POG, low elevation deep snow deer winter habitat. The majority of the deep snow winter habitat within this VCU is in the Timber Management [Land Use Designation] and either has already been affected by past timber harvest or will be affected by proposed harvest.

The biologically preferred OGR identified by the 2008 Forest Plan Interagency Review Team was not adopted for this VCU. Rather it was modified under the 2008 Forest Plan to exclude potential LSTA roads and units north of the 6273 road to maintain future management opportunities. The IA team recommends that the 2008 biologically preferred OGR be adopted under the Wrangell Project.<sup>9</sup>

Additionally, the IA team noted that the Blake Small OGR had not been designated as part of the 2008 Plan amendment, and recommended doing so now:

This small OGR was not designated by the Forest Supervisor in the 2008 Forest Plan Amendment. The Forest Plan Interagency Review Team recommended a Project Level Review because the small OGR was important to maintain habitat on the west side of a VCU 5050, which is also split by a salt water channel and because the Fools Medium OGR does not currently meet Appendix D minimum acreage criteria in the Forest Plan. The small OGR was originally placed to promote connectivity and dispersal to the mainland. The suggested location of the Blake Small OGR would be located within 2001 Roadless. The 2011 Wrangell IA Team recommended that the Blake Channel small be adopted for the Wrangell Island Project. <sup>10</sup>

Contrary to Forest Plan direction, however, none of the project alternatives presented in the DEIS implement these recommendations. An alternative that would have modified the OGRs was eliminated from consideration because, according to the DEIS, this would have required a Forest Plan amendment and the uncertain outcome of the already-initiated Forest Plan amendment process warranted dismissing this alternative.<sup>11</sup> This rationale is unpersuasive.

Modifications to OGRs are addressed in Appendix K of the 2008 Forest Plan. Appendix K fully anticipates that "project level reviews will ensure that OGRs meet Forest Plan OGR criteria while addressing forest-wide multiple use goals and objectives." After an IA team review of OGRs in each impacted VCU, line officers are directed to incorporate the IA team's recommendations into

<sup>9</sup> WRR at 45.

<sup>&</sup>lt;sup>10</sup> WRR at 46. Although the earlier recommended addition connecting the Fools Medium OGR to the Earl West small OGR may have remedied the inadequate overall acreage included in the Fools OGR, it is not clear that it added the needed 418 high-volume POG acreage.

<sup>11</sup> DEIS at 23.

<sup>&</sup>lt;sup>12</sup> 2008 Forest Plan, Appendix K at K-2.

the NEPA review, considering the biologically preferred option among other considerations.<sup>13</sup> Line officers must attempt to develop a viable project that avoids conflict with the biologically preferred OGR, and at a minimum the biologically preferred OGR will be considered in an alternative in the NEPA document.<sup>14</sup> Any resulting OGR changes are "generally a non-significant Forest Plan amendment."<sup>15</sup> There is no mention of an intent to abandon Appendix K modifications based on project level reviews simply because there is a Forest Plan amendment or revision process underway.

The current Forest Plan amendment is limited in scope and includes no forest-wide nor Wrangell Island-specific assessment of OGRs. Projects and their accompanying reviews are proceeding apace notwithstanding the Forest Plan amendment process, and it is disingenuous to claim that only the OGR modification portion of the review process for the Wrangell Island Project must be dismissed because of uncertainty regarding the outcome of that amendment process. Both the Wrangell Island Project and a non-significant plan amendment to modify the OGRs on Wrangell Island to meet minimum OGR criteria can proceed despite the pendency of the Forest Plan amendment currently underway.

The Forest Plan established the OGR system and a means of assessing and potentially modifying specific OGRs via project level reviews. The Forest Plan amendment process provides no reason to dismiss the biologically preferred OGR modifications, or to not present them in an alternative in the EIS as required by Appendix K of the Forest Plan. The FEIS should include an alternative, perhaps a modified Alternative 5, that brings both medium OGRs on Wrangell Island up to minimum Forest Plan amounts of POG, high POG, and total acreage, and expands the small OGRs as recommended by the IA team.

## B. Aligning the Proposed Harvest Areas with the 2016 Proposed Plan Amendment

Although the 2016 Forest Plan amendment is not yet finalized, the Forest Service has issued a proposed Record of Decision that would remove the lands from VCU 4790 from the timber base. Some of those lands are proposed for timber harvest as part of the Wrangell Island project. If the amendment is finalized before the Wrangell Island project decision, then this area would need to be removed from the sale. But even if the Wrangell Island project decision precedes the final amendment, the Forest Service should remove the lands in question in order to preserve the intent of the amendment and the significant planning effort undertaken to date. This effort is to facilitate a transition away from old growth logging by, among other things, removing some old growth areas from the suitable timber base on the forest. The Forest Service shouldn't simultaneously seek to log those very areas in the weeks or months preceding the finalization of the amendment.

### II. Impacts to Specific Wildlife Species

Below are comments for deer and wolves in addition to the comments submitted on our behalf by Earthjustice. In general, we request that the FEIS present both road density and winter deer habitat

<sup>13</sup> Id.

<sup>14</sup> Id. (emphasis added).

<sup>15</sup> Id.

with elevation and other characteristics more closely tied to characteristics already known to be important for deer and wolves. Also, even the information as presented in the DEIS demonstrates concern for the continued viability of wolves on Wrangell Island. Accordingly, the Forest Plan should implement all applicable Forest Plan standards and guidelines for wolves. Finally, the marten analysis presents several considerations similar to worlves, and the FEUS should address whether there is a mortality concern for marten on Wrangell Island as well.

### A. Sitka Black-Tailed Deer

This deer was chosen as a Management Indicator Species because it receives the highest hunting and subsistence use of all terrestrial species in Southeast Alaska, and represents those species that use lower elevation POG habitat (below 800 feet) during the winter period. The DEIS acknowledges that the habitat capability on Wrangell Island is significantly less than 18 deer per square mile, the level generally required to provide viable deer populations considering human and other predation. It further acknowledges that deer habitat will be decreased as a result of any of the alternatives under consideration. Winter habitat and deer condition going into winter are the most important limiting factors for deer in Southeast Alaska. Alaska.

Given the critical importance of winter habitat to deer survival, the DEIS does not appear to contain the most helpful analyses available to measure winter habitat and gauge the impact of the various alternatives on that critical metric. Low-elevation, high-volume old growth stands with southern aspects in low snowfall areas provide the very best winter deer habitat available.<sup>19</sup> It would thus be logical and very helpful for the DEIS to consider the alternatives in light of impacts to this specific type of habitat – with "low" elevation defined as below 800.

The DEIS provides the current and historical conditions for "deep snow" deer habitat (high-volume POG on south facing slopes), but without reference to elevation.<sup>20</sup> It also displays "average snow" habitat, which includes all POG at or below 1500' elevation.<sup>21</sup> It fails to show habitat information for either high-volume or all POG at or below 800' elevation. It also fails to show all POG in terms of south-facing aspect, and does not identify typically low, medium or high snowfall areas.

The FEIS should show the historic, current and proposed remaining low elevation (below 800') high-volume old growth habitat on south-facing slopes, as well as all POG below 800' and 1500' on south or non-north facing slopes, to provide a much clearer picture of the impacts to critical winter deer habitat by alternative.

Deer density on NFS lands is currently modeled at 12.9 deer/square mile, down from a historic level of 15.3.<sup>22</sup> That figure would drop to 11.7-12.0 deer/square mile, depending on the alternative chosen. On all lands, deer density drops to 9.9-10.2 deer/square mile depending on the alternative.<sup>23</sup>

<sup>&</sup>lt;sup>16</sup> DEIS at 79 (emphasis added).

<sup>&</sup>lt;sup>17</sup> DEIS at 104.

<sup>&</sup>lt;sup>18</sup> DEIS at 79.

<sup>19</sup> WRR at 98.

<sup>&</sup>lt;sup>20</sup> DEIS at 106, Table 38.

<sup>21</sup> T.d.

<sup>&</sup>lt;sup>22</sup> WRR at 59.

<sup>&</sup>lt;sup>23</sup> WRR at 60.

And although historically five out of six provinces in the Etolin Complex Biogeographic Province met the 18 deer/square mile standard, today only one Wildlife Analysis Area (WAA) does so (Zarembo Island).<sup>24</sup> The record thus demonstrates that deer habitat on Wrangell Island is well below that considered necessary to support viable populations of deer and predators.

The WRR also discusses the Interagency Deer Model, which was developed to evaluate potential winter habitat capability and was updated during both the 1997 Forest Plan revision and the 2008 Amendment. The model is appropriate at the WAA scale (and thus appropriate for this project), and calculates a Habitat Suitability Index (HSI) based on vegetation, elevation, aspect, and typical snowfall for an average winter. Generated HSI values range from 0.0 in areas that have no winter habitat value to 1.0 in optimal habitat. This sounds promising as a useful tool to display a range of habitat suitability that would add considerable detail and spatial understanding not conveyed in the DEIS charts showing overall amounts of "deep snow" or "average snow" acreage available on Wrangell Island. Unfortunately, the tool is never applied and HSI values do not appear to have been generated, or at least are not presented in the DEIS or WRR. The FEIS should display the historic, current and projected HSI values for the Wrangell Island WAA by alternative.

# B. Alexander Archipelago Wolf

The AA wolf was chosen as a MIS due to population concerns in some parts of the Tongass.<sup>27</sup> The AA wolf inhabits the mainland and the islands south of Frederick Sound, including Wrangell Island. They use a wide variety of habitats but spend most of their time in old growth forests at low elevations, **below 270 feet**.<sup>28</sup> The Forest Plan contains standards and guidelines to ensure the long-term sustainability of wolves on the Tongass.<sup>29</sup>

Prey abundance (deer) and road densities were used to analyze the effects of the project on wolves.<sup>30</sup> As detailed below, consideration of these factors clearly indicates concern for the continued viability of wolves on Wrangell Island. This concern, in turn, triggers additional wolf-specific standards and guidelines in the Forest Plan, also described below. The DEIS fails to express the viability concern for wolves indicated by the facts regarding prey abundance and road density on Wrangell Island, and the Forest Service has not applied the relevant standards and guidelines. The FEIS must correct these deficiencies.

# 1. The Forest Service Has Not Implemented the Forest Plan Standards and Guidelines for Wolves.

The standards and guidelines for wolves are as follows:

A. Implement a Forest-wide program, in cooperation with ADF&G and USFWS, to assist in maintaining long-term sustainable wolf populations.

<sup>&</sup>lt;sup>24</sup> WRR at 60.

<sup>&</sup>lt;sup>25</sup> WRR at 98.

<sup>&</sup>lt;sup>26</sup> Id.

<sup>&</sup>lt;sup>27</sup> DEIS at 75.

<sup>&</sup>lt;sup>28</sup> DEIS at 75 (emphasis added).

<sup>&</sup>lt;sup>29</sup> 2008 Forest Plan at 4-95.

<sup>&</sup>lt;sup>30</sup> DEIS at 75.

- 1. Where wolf mortality concerns have been identified, develop and implement a Wolf Habitat Management Program in conjunction with ADF&G. To assist in managing legal and illegal wolf mortality rates to within sustainable levels, integrate the Wolf Habitat Management Program (including road access management) with season and harvest limit proposals submitted to federal and state boards.
  - a) Participate in interagency monitoring of wolf populations on the Forest.
- b) Where wolf population data suggest that mortality exceeds sustainable levels, work with ADF&G and USFWS to identify probable sources of mortality. Examine the relationship among wolf mortality, human access, and hunter/trapper harvest. Conduct analyses for smaller islands (e.g., Mitkof Island), portions of larger islands, or among multiple wildlife analysis areas (WAAs).
- c) Where road access and associated human-caused mortality has been determined, through an interagency analysis, to be a significant contributing factor to locally unsustainable wolf mortality, incorporate this information into Travel Management planning and hunting/trapping regulatory planning. The objective is to reduce mortality risk and a range of options to reduce this risk should be considered. In these landscapes, both open and total road density should be considered. Total road densities of 0.7 to 1.0 mile per square mile or less may be necessary. Options shall likely include a combination of Travel Management regulations, establishing road closures, and promulgating hunting and trapping regulations to ensure locally viable wolf populations. Local knowledge of habitat conditions, spatial locations of roads, and other factors need to be considered by the interagency analysis rather than solely relying upon road densities. Road management objectives would be developed and implemented through an interdisciplinary Access and Travel Management or comparable process. (See Transportation Forest-wide Standards and Guidelines.) Suggested wolf hunting and trapping changes would be developed and forwarded to the Federal Subsistence Board and the Alaska Board of Game.
- 2. Provide, where possible, sufficient deer habitat capability to first maintain sustainable wolf populations, and then to consider meeting estimated human deer harvest demands. This is generally considered to equate to the habitat capability to support 18 deer per square mile (using habitat capability model outputs) in biogeographic provinces where deer are the primary prey of wolves. Use the most recent version of the interagency deer habitat capability model and field validation of local deer habitat conditions to assess deer habitat, unless alternate analysis tools are developed. Local knowledge of habitat conditions, spatial location of habitat, and other factors need to be considered by the biologist rather than solely relying upon model outputs.
- 3. Design management activities to avoid abandonment of wolf dens. a) Maintain a 1,200-foot forested buffer, where available, around known active wolf dens. Road construction within the buffer is discouraged and alternative routes

should be identified where feasible. No road construction is permitted within 600 feet of a den unless site-specific analysis indicates that local landform or other factors will alleviate potential adverse disturbance. b) If a den is monitored for 2 consecutive years and found to be inactive, buffers described in a), above, are no longer required. However, in the spring, prior to implementing on-the-ground management activities (timber harvest or road construction), check each known inactive den site to see if it has become active.<sup>31</sup>

The DEIS contains no indication that the Forest Service is implementing these standards and guidelines in any way relevant to the Wrangell Island project. There is no mention of cooperation with ADF&G or USFWS to assist in maintaining long-term sustainable wolf populations, or efforts to provide the habitat capable of supporting 18 deer per square mile as required in paragraph A.2 above. Indeed, the DEIS does not appear to consider the provision of deer habitat equating to 18 deer per square mile to be a specific desired condition, or to even be of particular importance, before or after implementation of the Wrangell Island project.<sup>32</sup>

The DEIS also contains no discussion of management activities designed to avoid abandonment of wolf dens as part of this project as required in paragraph A.3, instead simply stating that there are no known wolf dens in the project area. There is no indication of any effort to locate any dens. The DEIS, however, characterizes with reasonable specificity the preferred denning sites of nearby wolves.<sup>33</sup> At minimum, the FEIS should apply this knowledge to the project area and seek to identify likely wolf den locations.<sup>34</sup> This could facilitate the potential identification of dens prior to project activities, or the creation of protective buffers around likely areas in the absence of confirming den sites. If this approach is unworkable for any reason, then the FEIS should explain why, so that the public can see that the Forest Service is at least trying to implement the Forest Plan standards and guidelines designed to protect wolves, which is a critical component of the conservation strategy.

Significantly, the DEIS does not state whether the Wrangell Island WAA is an area of wolf mortality concern, which would trigger the Wolf Habitat Management Program provision noted above. It discusses no such Habitat Management Program or any of the efforts required by section A.1(a)-(c) listed above. In sum, the DEIS fails to implement at the project level the Forest Plan standards and guidelines designed to protect AA wolves on the Tongass. The FEIS should remedy this as follows.

<sup>&</sup>lt;sup>31</sup> 2008 Forest Plan at 4-95.

<sup>32</sup> See DEIS at 93.

<sup>&</sup>lt;sup>33</sup> On Prince of Wales and Kosciusko Islands, preferential den sites were in root wads of large trees, living or dead, in old-growth stands with greater than 70% canopy cover. The den sites were primarily located at low elevations, on gradual slopes, in coarse canopy old-growth forests and muskeg, and within 492 feet of freshwater streams, ponds or lakes. DEIS at 52-53.

<sup>&</sup>lt;sup>34</sup> Perhaps harvest data could be of assistance as well, though the DEIS and WRR do not identify harvest locations.

# 2. The Forest Service Should Acknowledge Wolf Mortality Concerns on Wrangell Island and Implement the Standards and Guidelines for Wolves.

For a detailed, project-level analysis, the DEIS does not say much about wolves on Wrangell Island, so there is presumably a scarcity of reliable data.<sup>35</sup>

It is this somewhat limited knowledge base that the Forest Service must use to determine project effects on these wolves, to select appropriate conservation efforts to minimize adverse impacts, and ultimately to ensure their continued viability. The available site-specific information, together with information about other southeast Alaska wolves considered in light of relevant metrics including road density and deer habitat, all point to the conclusion that wolf mortality is a concern on Wrangell Island.

# i. Road Density is a Concern for Wrangell Island Wolves

One of the primary concerns to the long-term viability of wolf populations in a given area is road density, which can increase hunting and trapping mortality through improved human access.<sup>36</sup> Wolf harvest has doubled when total road density below 1200' elevation exceeded 0.7 miles/square mile, and both open and closed roads can increase harvest levels.<sup>37</sup> When calculating road densities, open and closed roads should be included and consideration should be given to excluding high elevations from the analysis.<sup>38</sup>

Existing road density on Wrangell Island as 0.98 miles/square mile on Forest Service land, and 1.3 miles/square mile on all lands as measured in the DEIS.<sup>39</sup> This is already above the Forest Plan standard and guideline of 0.7-1.0 miles/square mile, and all action alternatives will exacerbate this problem for wolves, increasing the total density to between 1.42-1.5 miles/square mile, depending on the alternative.<sup>40</sup>

Moreover, the DEIS figures appear likely to understate the problem of road density for wolves on Wrangell Island. As noted, southeast Alaska wolves spend most of their time at low elevations, below 270 feet, den at low elevations, and are rarely ever found above 924 feet of elevation. Instead of using an elevation more meaningful in light of wolf behavior, such as 500' or 800', the DEIS uses a 1200' elevation to determine road density. The FEIS should present road density at lower elevations to better understand the practical increased hunting pressure on wolves, which are far less likely to be vulnerable to increased hunting pressure due to roads above 800'. That is, the FEIS should exclude high elevations from the analysis, as the DEIS notes should happen but does not actually do.

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<sup>&</sup>lt;sup>35</sup> There are no statistically reliable population estimates for wolves on Wrangell Island or GMU 3, though perhaps 125-385 wolves are thought to occur in GMU 3 in approximately 23 packs. reported wolf harvest in GMU 3 averaged 47 wolves from 1998-2007, then increased to 50 in 2008-2010. Two packs are thought to occur on Wrangell Island; reported harvest there has averaged 2.7 wolves annually (range = 0-6) over the last 24 years. Trapping has historically been the primary means of harvest, though more wolves were taken by firearms than trapped in three of the last ten years. WRR at 53-55.

<sup>&</sup>lt;sup>36</sup> DEIS at 55.

<sup>&</sup>lt;sup>37</sup> DEIS at 55-56.

<sup>&</sup>lt;sup>38</sup> DEIS at 56 (emphasis added).

<sup>&</sup>lt;sup>39</sup> DEIS at 57-58, Tables 19, 21.

<sup>&</sup>lt;sup>40</sup> DEIS at 58, Table 21.

# ii. Deer Habitat is a Concern for Wrangell Island Wolves

As noted above, deer density on all Wrangell Island lands is currently estimated based on available habitat at 10.9 deer/square mile and is expected to drop to 9.9-10.2 deer, depending on the action alternative chosen. This is well below the 18 deer/square mile standard for supporting viable wolf populations, where deer are the wolves' primary prey. The DEIS does not appear to regard this as a problem for deer or wolves, and simply concludes that wolves will continue to persist on Wrangell Island if the proposed project proceeds, despite the low deer density.

As also noted above, critical winter deer habitat is not well-characterized in the DEIS because key factors like appropriate elevation, aspect, vegetation (high volume old growth) and typical snowfall are not all reflected in the information presented. When critical winter deer habitat is accurately characterized in the FEIS, it is likely that estimated "deep snow" habitat and perhaps the expected deer densities will decrease for all action alternatives, making the situation worse for wolves on Wrangell Island.

Since the two key units of measure - deer habitat and road density - already fall well short of desired conditions, a proposed timber sale that will further reduce deer habitat and increase road density points to mortality concerns for wolves. In fact, the USFWS already specifically stated that "Long term viability of wolves on Wrangell Island is a concern," citing the combination of timber harvest and road construction impacts on deer, as well as road density and hunting pressure on wolves. <sup>42</sup> There is nothing in the record to suggest that wolves are thriving despite the seemingly adverse conditions, or that there is something about Wrangell Island wolves that render these concerns less applicable to them than other wolf populations. As such, the Forest Service should acknowledge on these facts that there are wolf mortality concerns on Wrangell Island.

# 3. The Forest Service Should Implement the Wolf Habitat Management Program Described in the Standards and Guidelines.

Upon recognizing those concerns, the Forest Service should activate the process described in the standards and guidelines quoted above, including working with ADF&G and USFWS on population estimates, identifying sources of mortality, and considering whether Travel Management options or hunting/trapping regulatory planning is appropriate. The guidelines state "Conduct analyses for smaller islands" to "examine the relationship among wolf mortality, human access, and hunter/trapper harvest;" the NEPA assessment of this project makes an ideal time to conduct an analysis for Wrangell Island.

Our understanding is that a Wolf Habitat Management Team has now been initiated on Prince of Wales island. A significant wolf population decline on Prince of Wales has already been documented, but evidence of such a decline is not and should not be a prerequisite to establishing a wolf habitat management team on Wrangell Island. The standards and guidelines seek no such evidence, and requiring it would ensure that wolf management efforts are not undertaken until significant harm to wolves has already occurred.

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<sup>41</sup> WRR at 60.

<sup>&</sup>lt;sup>42</sup> USFWS Scoping Comment Letter, 3/4/2011, at 2; see also Public and Agency Scoping Report Version 1.0, May 31, 2011, at 15.

Wrangell Island contains many of the same issues that have led to the wolf population declines on Prince of Wales, such as road density, deer density, and reported and unreported wolf trapping and mortality. There is potentially even more concern on Wrangell Island in terms of hunting pressure on wolves because the human population is almost 60% of that on Prince of Wales, while the Wrangell Island land base is only 8% of Prince of Wales.<sup>43</sup>

With regard to Travel Management, it appears that instead of working with ADF&G and USFWS to develop options driven by wolf viability concerns, as prescribed in the wolf standards and guidelines, the interdisciplinary team pursued a process with the Borough of Wrangell that "identified the roads associated with the (proposed) alternative that are the most important to the community for subsistence and recreation access." The proposed Alternative 2 has the greatest amount of timber harvest and road building among the alternatives. While community desires for road access for subsistence and recreation are valid considerations, the FEIS should include a Travel Management component driven by wolf viability concerns and reflecting the required cooperation of ADF&G and USFWS.

The standards and guidelines are intended to ensure the continued viability of the wolf, and as such need to be applied in a proactive manner, not in a post-mortem context to understand how wolf populations significantly declined or were rendered non-viable. Here, the key indicators of deer habitat and road density are below thresholds important for wolf survival and thus clearly indicate a threat to long-term wolf viability, even before consideration of project impacts. The USFWS has voiced this wolf mortality concern. The Forest Service should implement the standards and guidelines, and the FEIS should display the results of those efforts, including stronger population estimates; better identification of and buffers for wolf dens, critical deer winter habitat, and road density; consideration of Travel Management and hunting/trapping components to benefit wolf populations; and the general cooperation and engagement of ADF&G and USFWS as part of the required Forest-wide program to maintain long-term sustainable wolf populations.

#### C. Marten

The Wrangell Island project is within the Etolin Island Biogeographic Province, which is considered a high-risk province for marten habitat.<sup>46</sup> During severe deep snow winters, high-volume POG habitat may be the most crucial element to marten survival.<sup>47</sup> Harvests of 60 and 69 marten on Wrangell Island in 2011 and 2012, respectively, far exceeded the annual average since 1992 of 16 marten per year. Increased road densities associated with timber harvest activities have improved trappers' access to furbearers' habitat, reducing their refugia and making them vulnerable to overharvest.<sup>48</sup> Thus, the marten presents concerns related to high-POG winter habitat and road density similar to the deer and wolf.

<sup>&</sup>lt;sup>43</sup> 2,369 people live on Wrangell Island's 134,306 acres; Prince of Wales island covers 1,649,280 acres with a 2010 census population of about 4000.

<sup>44</sup> DEIS at viii.

<sup>45</sup> DEIS at ix-x.

<sup>&</sup>lt;sup>46</sup> WRR at 65.

<sup>&</sup>lt;sup>47</sup> Id.

<sup>&</sup>lt;sup>48</sup> WRR at 66.

Additionally, selective logging that preserves at least 70% of the basal area minimizes impacts to marten habitat carrying capacity. The FEIS should provide the more precise mapping of "deep snow" habitat and lower elevation road density as already discussed, and the final project should protect key deep snow habitat with selective logging in any areas where logging is allowed.

Fragmentation is also a significant concern for marten. Gaps consisting of one vacant marten territory every one to three square miles can reduce habitat capability to the point that reproductively successful marten populations may no longer exist. Gaps will reduce gene flow, so the greater the size and number of gaps, the higher the risk of reducing gene flow. Thus the need "to provide for a continuous recruitment of old, large-diameter trees for denning and resting sites and prey habitat through the affected area."

These considerations for marten strongly support the IA team recommendations for modifying OGRs to increase size, POG and high-volume POG acreage, and improve connectivity – which will all tend to minimize the number and size of habitat gaps that threaten marten survival. These considerations also counsel in favor of the road closures already selected in the Wrangell District ATM but deferred until this project decision, since hunting pressure has increased significantly on marten due to additional roads.<sup>50</sup>

Finally, the Forest Plan standards and guidelines for marten are similar to those for the wolf, in that the Forest Service is supposed to implement a Forest-wide program with ADF&G to conserve marten habitat to assist in maintaining long-term sustainable marten populations.<sup>51</sup> Also, when there are marten mortality concerns in an area, management activities including access to Forest Service lands and consideration of ADF&G hunting/trapping regulations should occur.<sup>52</sup> The DEIS mentions no Forest-wide program involving Forest Service and ADF&G cooperation to conserve marten habitat. At a minimum, the two agencies should closely monitor marten habitat and harvest levels on Wrangell Island to actively seek to maintain long-term sustainable populations, as required by the standards and guidelines. The FEIS should explicitly address whether there is a concern for marten mortality on Wrangell Island.

### Conclusion

There are clear challenges in proposing further old growth logging and clearcutting in an area carrying such significant successional debt from prior timber harvesting and road building activities that have substantially reduced important wildlife habitat, especially high-volume POG. One key step in attempting to do so responsibly is to prepare thorough analyses to support all appropriate management actions to safeguard wildlife and habitat in light of the proposed action. The Forest Service has undertaken a number of helpful analyses, but there are management actions and decisions left outstanding that need to be completed before an adequate FEIS and Record of Decision can be prepared.

Those actions include modifying the OGRs so that they meet minimum Forest Plan criteria and can thus serve their intended purpose; building a project alternative that reflects the biologically

<sup>&</sup>lt;sup>49</sup> WRR at 70.

<sup>&</sup>lt;sup>50</sup> Id.

<sup>51</sup> Forest Plan at 4-96.

<sup>52</sup> Forest Plan at 4-97

preferred OGR configurations identified by the IA team; actively implementing all applicable standards and guidelines for wildlife, particularly wolves and marten; and more carefully defining and presenting key units of measurement bearing on road density and critical winter deer habitat. We look forward to seeing these adjustments as the FEIS is developed.

Sincerely,

Patrick Lavin

Alaska Representative