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Comments: To the Forest Service:

Attached please find the first of two submissions on scoping for the Twin Mountain II timber sale. This submission contains our comment letter and the first 8 of 17 exhibits. I will then attempt to upload exhibits 9 through 17.

Thank you for your attention to this matter.

Ted Zukoski

To the Forest Service:

The Center for Biological Diversity (["the Center"]) submits these comments on the Twin Mountain II Timber Sale Project in response to the scoping notice of September 11, 2020.

The Center is a non-profit environmental organization with more than 81,000 members, and 1.7 million members and online activists nationwide who value wilderness, biodiversity, old growth forests, and the threatened and endangered species which occur on America's spectacular public lands and waters. Center members and supporters use and enjoy the Tongass National Forest, and Forest lands on Prince of Wales Island, for recreation, photography, nature study, and spiritual renewal.

The Center believes that the welfare of human beings is deeply linked to nature [ndash] to the existence in our world of a vast diversity of wild animals and plants. Because diversity has intrinsic value, and because its loss impoverishes society, the Center works to secure a future for all species, great and small, hovering on the brink of extinction. The Center does so through science, law and creative media, with a focus on protecting the lands, forests, waters and climate that species need to survive.

The Center urges the Tongass National Forest to abandon the Twin Mountain II project. The project will involve the logging of up to 3,000 acres of old-growth forest, a treasure irreplaceable in many human lifetimes, over a five-to-ten-year period. As the climate crisis and extinction crisis accelerate, the Forest Service should be preserving old-growth forests in the Tongass in general and on Prince of Wales Island in particular for their huge values as both carbon sinks and storehouses of biodiversity. Tongass communities depend upon the forest's old-growth stands to support the region's fish, wildlife, and outdoor recreation industries. By contrast, logging and road construction needed to support this timber sale will undoubtedly cost U.S. taxpayers millions of dollars, as have many logging projects on the Tongass before it, and return little to the community, given the tiny contribution logging and milling bring to the Southeast Alaskan economy. The proposed action includes approximately 3 miles of new national forest system road construction, 11 miles of new temporary road

construction, and the reconditioning of approximately 35 miles of existing roads.

If the Forest Service intends to pursue this project, we request that the agency address the issues raised below in any subsequently prepared NEPA document.

#### I. The Forest Service Must Promptly Disclose in Writing Which NEPA Regulations Govern Its Analysis.

The Forest Service must announce to the public, in writing, as quickly as possible, which NEPA regulations it intends to apply to the Twin Mountain II project. We assume this action is governed by the Council on Environmental Quality's (CEQ's) 1978 regulations, as amended. Although CEQ issued a final rulemaking in July 2020 fundamentally rewriting those regulations, the new rules apply only [Idquo]to any NEPA process begun after September 14, 2020,[rdquo] or where the agency has chosen to [Idquo]apply the regulations in this subchapter to ongoing activities.[rdquo]<sup>1</sup>

It is unclear when the Forest Service will allege the Twin Mountain II project NEPA process [Idquo]began.[rdquo] However, all of the scoping documents on the Forest Service's project page are dated September 14 or before; the Supervisor's letter announcing the commencement of scoping is dated September 11, 2020. The Forest Service nowhere alleges it has chosen to apply the 2020 rules to this project. To ensure certainty and eliminate any potential confusion, the Forest Service should exercise its discretion to promptly announce that it will apply the long-standing, well-understood 1978 rules here. Attempting to apply the 2020 CEQ regulations without adequate guidance or training, and with conflicting agency policies and procedures still on the books, would be highly inefficient and would leave the Forest in a legally vulnerable position. Further, the future of the 2020 rules is still uncertain because the Council on Environmental Quality faces no fewer than four pending lawsuits challenging the 2020 regulations.<sup>2</sup>

Further, we note that the Forest Service cannot tie to the Prince of Wales Landscape Level Analysis Final EIS because a court order forbids it to do so.<sup>3</sup> It must prepare a new draft EIS.

#### II. The Forest Service Must Modify the [Isquo]Purpose and Need[rsquo] Statement.

The 2016 Tongass Forest Plan states: [Idquo]The Forest is managed to produce desired resource values, products, services, and conditions in ways that also sustain the diversity and productivity of ecosystems.[rdquo]<sup>4</sup> By contrast, the scoping document for the Twin Mountain II timber sale states that its purpose is [Idquo]to manage the timber resource for production of sawtimber and other wood products to meet public demand and to meet multiple resource objectives,[rdquo] omitting the Forest Plan's dictates that the agency [Idquo]sustain the diversity and productivity of ecosystems.[rdquo] The Forest Service must remedy this omission, and ensure that any action alternative meets that ecosystem objective.

#### III. The Forest Service Must Analyze a Range of Reasonable Alternatives.

[Idquo]Under NEPA's applicable regulations, a federal agency's EIS must [Isquo][r]igorously explore and objectively evaluate all reasonable alternatives [to a proposed action], and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.[rsquo][rdquo]<sup>5</sup> As the courts have made clear: [Idquo]The agency must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate.[rdquo]<sup>6</sup> An agency's consideration of alternatives becomes meaningless if the agency arbitrarily constrains the range of alternatives considered and fails to consider alternatives that avoid the adverse effects of the proposed action, frustrating NEPA's goal of protecting the environment.<sup>7</sup>

While the Center supports the [Idquo]no action[rdquo] alternative, the Forest Service must consider alternatives that limit impacts from the proposed action, and that sharply define the trade-offs at play in the proposed action.

No New Roads Alternative. Roads are the enemy of wildlife and ecosystem health. They eliminate and fragment habitat, disrupt hydrology, destabilize soils, increase sedimentation in waterways, cause roadkill, increase the risk of wildfire, provide pathways for poachers and invasive species, and have many other damaging impacts.<sup>8</sup> Prince of Wales Island is already heavily roaded. The Forest Service should devise and analyze in detail an alternative that requires a minimal road network and results in no additions to the Tongass's road system.

Young Growth Alternative. To comply with the 2016 Amended Forest Plan, the Forest Service must consider an alternative or alternatives for which a substantial portion, or all, of the logging occurs in young growth forest.

The 2016 Amended Forest Plan's key objectives include transitioning the Tongass away from a predominant old-growth industry. The Forest Service adopted the 2016 Amended Forest Plan in response to the Secretary of Agriculture's Memorandum 1044-009,<sup>9</sup> which directed the Tongass National Forest [ldquo]to expedite the transition away from old-growth timber harvesting and towards a forest products industry that uses predominantly second-growth ... forests.[rdquo]<sup>10</sup>

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

\* O-YG-01: During the 15 years after plan approval, the amount of young-growth offered would gradually increase to exceed 50 percent of the timber offered annually.<sup>11</sup>

\* O-YG-02: During the 15 years after plan approval, offer increasing annual volumes of economically viable young-growth timber. Old-growth timber harvest would gradually be reduced to an average of 5 million board feet (MMBF) annually, to support Southeast Alaska mills.<sup>12</sup>

The 2016 Amended Forest Plan makes clear that [ldquo]specific activities and projects will be planned and implemented to carry out the direction in this Forest Plan.[rdquo]<sup>13</sup>

To implement the Plan, the Forest Service must consider at least one alternative that includes a significant portion of young growth logging and reduces or eliminates the volume of old growth. To do otherwise will be to undermine and ignore the Plan's, and the Secretary's, direction.

As part of this analysis, the Forest Service must evaluate whether old-growth from other sources (Sealaska Corporation, Alaska Mental Health Trust, the State of Alaska, existing National Forest contracts, etc.) will provide the vast majority of timber [ldquo]needed[rdquo] to supply local mill(s).

Further, environmental analysis must disclose how this project will help move the Forest to young growth offerings exceeding 50% by 2031 when this project, unlikely to be approved until late 2021, will involve the logging of exclusively old growth timber for 5 to 10 years after 2021.<sup>14</sup>

#### IV. The Forest Service Must Disclose the Project's Fiscal Costs and Benefits.

NEPA requires federal agencies to disclose the socio-economic impacts of proposed actions.<sup>15</sup> The Forest Service therefore must disclose the economic and fiscal impacts of the Twin Mountain II proposal, which are likely to be significant and negative. This is particularly necessary here because the Forest Service intends to justify the proposal on the grounds that [ldquo]there is a need to provide a sustainable level of forest products to contribute to the economic sustainability of the region.[rdquo]<sup>16</sup>

Timber sales on the Tongass have long cost U.S. taxpayers far more than they generate. A 2020 study by Taxpayers for Common Sense concluded that in fiscal year 2019, the Forest Service lost \$16.1 million on timber sales on the Tongass National Forest. The report concluded that [ldquo]since fiscal year 1980, the [Tongass

National Forest] has lost approximately \$1.7 billion, or \$44 million per year on average[rdquo] on logging projects, and that the Forest Service [ldquo]could end up losing nearly \$190 million in the Tongass over the next five years from planned sales, and more if currently roadless areas are opened to logging.[rdquo]17

Further, the Forest Service must disclose the harm the project may have on the [ldquo]economic sustainability[rdquo] of non-timber businesses, including outfitting, fishing, recreation, and the cruise and visitor industry, which in recent years have provided many times more jobs and income to Southeast Alaska than logging.18

#### V. The Forest Service Must Take a Hard Look at the Project[rsquo]s Potential Impacts to Wildlife.

The best available science from islands systems across the globe has repeatedly demonstrated that island ecosystems are extremely vulnerable to human disturbance because they frequently support flora and fauna that are found nowhere else on Earth (i.e., endemic to only these regions). In particular, the endemic flora and fauna on islands are highly susceptible to extirpation (local extinction) and ultimately extinction. Globally, more than 50% of all documented vertebrate extinctions in the last 400 years have occurred on islands. These are landforms that must be managed very carefully because mistakes have implications that cannot be reversed (e.g., extinction). Vulnerability to extinction due to island processes has been addressed throughout the Tongass[rsquo] recent land management planning processes, yet management has made no efforts to address conservation requirements. The issue of endemic conservation on the Tongass and the need to manage this forest using island biogeographic principles has been acknowledged by multiple independent scientific reviews of the Tongass Land Management Plan and in numerous publications specific to the Tongass National Forest, yet the Forest Service continues to fail to adequately manage these public resources using approaches that rely on best available scientific information.

Alexander Archipelago wolf. The Forest Service must take a hard look at the potential for logging old growth to threaten the viability of the Alexander Archipelago wolf (Archipelago wolf). Specifically, the Forest Service must address and respond to the new information contain in a petition submitted by the Center, Defenders of Wildlife, and Alaska Rainforest Defenders in July 2020 indicating that the Archipelago wolf on the Tongass is a distinct population segment that merits protection under the Endangered Species Act.19 That new information includes the killing of a huge number of wolves in Game Management Unit 2 during the 2019-2020 trapping season, which includes the lands of the Twin Mountain II timber sale, and evidence of genetic inbreeding of Archipelago wolves on the Tongass.

On Prince of Wales Island, trapping and hunting is contributing to the observed large-scale population decline, and illegal unreported killing may account for as much as half of total trapping and hunting mortality. Adding to this precarious situation, during the 2019-2020 trapping season, an unprecedented number of wolves were killed on Prince of Wales, totaling 165 wolves legally trapped from a population last estimated at 170 wolves in fall 2018, and not including additional wolves killed illegally. This alarming level of killing occurred after the state eliminated trapping and hunting limits and in-season mortality monitoring for this vulnerable population and failed to follow the recommendations of its own Wolf Habitat Management Program. As a result of the alarming level of wolf killing, conservation groups called on the Forest Service to implement its Wolf Management Plan, which so far the Forest Service has apparently failed to do.20

Further, Archipelago wolves in Southeast Alaska are vulnerable to loss of genetic diversity and associated inbreeding depression due to small population size, minimal movement among some island populations, and the magnified effects of anthropogenic threats to island ecosystems. New genetic evidence indicates that wolves on Prince of Wales are presently at risk of inbreeding depression, and that wolves on the islands of GMUs 3 and 1A also show evidence of inbreeding, putting them at risk for loss of genetic diversity.

Specifically, a new genetics study by Zarn (2019) concluded that wolves on Prince of Wales are already

experiencing high levels of inbreeding and are at risk of inbreeding depression due to population declines spurred by habitat loss and high trapping and hunting mortality, combined with the relative isolation of the Prince of Wales population.<sup>21</sup> Zarn also found that wolves primarily from the islands of GMUs 3 and 1A had the highest level of total genomic inbreeding, followed by Prince of Wales wolves.<sup>22</sup> Zarn stated that their study results refute the 2016 U.S. Fish & Wildlife Service's prior conclusion that inbreeding is likely not affecting the Prince of Wales wolf population, and instead cautioned that the consideration of inbreeding risks must be integrated into the management of Prince of Wales wolves to avoid the population entering an extinction vortex.<sup>23</sup>

The study's [ldquo]most striking result[rdquo] was that [ldquo]POW wolves have experienced very high levels of inbreeding in the recent past, and are comparable to a population of wolves on Isle Royale National Park (IRNP) that was founded by just two to three individuals[rdquo] (Zarn 2019 at 13) and [ldquo]is known to have exhibited severe inbreeding depression.[rdquo]<sup>24</sup> The study concluded that wolves on Prince of Wales Island [ldquo]may be at high risk for exhibiting inbreeding depression.[rdquo]<sup>25</sup>

The study attributed the loss of genetic diversity and vulnerability to inbreeding depression on Prince of Wales to geographic isolation paired with high levels of habitat loss from logging and high levels of trapping and hunting mortality.<sup>26</sup> The study emphasized that old-growth forests on Prince of Wales have been heavily logged since the 1950s, resulting in decreased habitat for both wolves and their main prey, Sitka black-tailed deer, and that the wolf population on Prince of Wales has also experienced heavy trapping and hunting mortality in recent years.<sup>27</sup> The study warned that the [ldquo]low population estimate of 2014 likely resulted in increased mating events between related individuals in subsequent years, and it is therefore probable that wolves currently on [Prince of Wales] have higher inbreeding coefficients than reported in this study unless recent successful migration from the mainland has also occurred.[rdquo]<sup>28</sup>

Zarn concluded that wolves on Prince of Wales Island may be reaching a point of showing signs of inbreeding depression: [ldquo]In context of previous studies on inbreeding and inbreeding depression in wild wolf populations, our data suggest that wolves on POW may be approaching a point at which they have already or will soon begin to exhibit signs of inbreeding depression given their geographic isolation, recent low population estimates, and evidence of high proportions of the genome being in long runs of homozygosity.[rdquo]<sup>29</sup> Zarn noted that at least three wolves in the Prince of Wales complex have been observed with shortened tails in recent years, which could be the result of [ldquo]skeletal malformations with a genetic basis and caused by inbreeding.[rdquo]<sup>30</sup>

The study concluded that inbreeding [ldquo]can pose significant threats[rdquo] to small, isolated populations such as Prince of Wales wolves, and that inbreeding must be considered when managing these populations to avoid spiraling into an extinction vortex.

The Forest Service must address this new information in any NEPA analysis for the Twin Mountain II timber sale, because that project will destroy wolf habitat and habitat used by the wolf's primary prey, and is likely to support the need to list the Alexander Archipelago wolf in Southeast Alaska as endangered or threatened. Further, any NEPA analysis must, at an absolute minimum, explain whether and how the Forest Service intends to mitigate or eliminate impacts to wolves likely to occur as a result of the Twin Mountain II timber sale through the Forest's Wolf Habitat Management Program (which we believe is inadequate and which the Forest Service has in any event failed to implement) or other means.

Prince of Wales Ermine. Any NEPA analysis must account for the impacts of old growth logging on the Prince of Wales ermine. Ongoing work on the Prince of Wales ermine highlights the distinct evolutionary origin and unique genetic properties of this mammal that, to the best of our knowledge, is only found on Prince of Wales Island, and potentially a very few nearby islands (not yet fully assessed).<sup>31</sup> Genetic data suggest the Prince of Wales ermine, currently recognized as subspecies *Mustela erminea celenda*, is distinctive, but closely related to the

subspecies *Mustela erminea haidarum*, which occurs on a few islands of the Haida Gwaii Archipelago (Queen Charlotte Islands), ~70 km south. The Haida Gwaii subspecies is currently listed under the Canadian Federal Species at Risk Act (SARA) and COSEWIC (Committee on the Status of Endangered Wildlife in Canada; S2--Imperiled or Rare) and is subject to protections and prohibitions under the British Columbia Wildlife Act and all harvesting of the subspecies is prohibited.

The Forest Service lacks understanding of the distribution, habitat needs, or viability requirements of the Prince of Wales ermine and this knowledge gap must be acknowledged and remedied in any subsequent NEPA analysis. Given the Forest Service's lack of knowledge regarding this species and its habitat requirements on Prince of Wales Island, the agency must conduct a population survey, as prescribed by the 2016 Amended Tongass Plan, to assess the impacts of the proposed timber harvest on the Prince of Wales ermine. Given the intensity of the historical logging on Prince of Wales, these survey efforts should be extensive, as the [ldquo]extent and rigor of surveys will be commensurate with the degree of existing and proposed forest fragmentation, and potential risk to endemic mammals that may be present.[rdquo]<sup>32</sup>

Prince of Wales Flying Squirrel. Genetic assessment of this subspecies showed it to be distinctive from other flying squirrel populations to the east.<sup>33</sup> This old-growth associated species likely is heavily affected by the elimination of old growth forest. Recent habitat analyses illustrate the need for at least 70% contiguous habitat in order for the species to exist. Contiguous habitat is rare on the Tongass; more so on Prince of Wales Island. The Forest Service must take a hard look at the impact of proposed old growth logging on this species.

Other Endemics. Any NEPA analysis must also disclose impacts to other regional endemics including the Queen Charlotte goshawk and the Prince of Wales Island Spruce Grouse.

Deer. Deer are the primary prey for wolves on Prince of Wales Island, and are also critical for subsistence for Native Alaskans. Clearcutting old-growth will degrade habitat for deer in the medium-to-long term. These impacts must be disclosed in any NEPA analysis. The Forest Service should consider how it can improve habitat for deer on Prince of Wales rather than destroying it for decades.

#### VI. The Forest Service Must Identify Road and Quarry Locations and Log Transfer Routes.

The Scoping Information document states: [ldquo]Existing rock quarries would be used as available or new quarries would be developed as necessary to provide materials for road construction.[rdquo]<sup>34</sup> The Forest Service must disclose the precise location and footprint of all roads and rock quarries, which essentially eliminate all habitat where constructed. The Forest Service cannot leave the matter of where quarries might be developed [ldquo]as necessary[rdquo] until after a decision approving the project has been made. Failing to disclose the impact of such quarries would violate NEPA's hard look mandate.

In order to enable the agency to understand potential impacts to marine mammals and the potential for cumulative impacts from log shipping of other projects (such as the South Revilla project), the Forest Service must disclose the projected volume of log transfer traffic, and the routes such traffic will take.

#### VII. The Forest Service Must Take a Hard Look at the Project's Potential Air and Climate Pollution Impacts.

The climate crisis is the preeminent environmental issue of our time, threatening to drastically modify ecosystems, alter coastlines, worsen extreme weather events, degrade public health, and cause massive human displacement. Its impacts are already being felt in the United States, and particularly and increasingly in Alaska, which, since 1950, has warmed twice as quickly as the global average.<sup>35</sup>

##### A. NEPA Requires Agencies to Disclose the Climate Impacts of Proposed Actions.

The Forest Service must analyze the direct, indirect, and cumulative impacts of a proposed action.<sup>36</sup> NEPA and NFMA require the Forest Service to use high quality, accurate, scientific information to assess the effects of a proposed action on the environment.<sup>37</sup> Meaningful consideration of greenhouse gas emissions (GHGs) and carbon sequestration is clearly within the scope of required NEPA review.<sup>38</sup> As the Ninth Circuit has held, in the context of fuel economy standard rules:

The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct. Any given rule setting a CAFE standard might have an [“individually minor”] effect on the environment, but these rules are [“collectively significant actions taking place over a period of time”]<sup>39</sup>

Courts have ruled that federal agencies consider indirect GHG emissions resulting from agency policy, regulatory, and fossil fuel leasing decisions. For example, agencies cannot ignore the indirect air quality and climate change impact of decisions that would open up access to coal reserves.<sup>40</sup>

NEPA requires [“reasonable forecasting,”] which includes the consideration of [“reasonably foreseeable future actions [hellip] even if they are not specific proposals.”]<sup>41</sup> That an agency cannot [“accurately”] calculate the total emissions expected from full development is not a rational basis for cutting off its analysis. [“Because speculation is ... implicit in NEPA,”] agencies may not [“shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as crystal ball inquiry.”]<sup>42</sup> The D.C. Circuit has echoed this sentiment, rejecting the argument that it is [“impossible to know exactly what quantity of greenhouse gases will be emitted”] and concluding that [“agencies may sometimes need to make educated assumptions about an uncertain future”] in order to comply with NEPA’s reasonable forecasting requirement.<sup>43</sup>

The 2016 final CEQ Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Review provide useful direction on the issue of federal agency review of greenhouse gas emissions as foreseeable direct and indirect effects of the proposed action.<sup>44</sup> The CEQ guidance provides directs agencies to conduct a lifecycle greenhouse gas analysis because the modeling and tools to conduct this type of analysis are available:

If the direct and indirect GHG emissions can be quantified based on available information, including reasonable projections and assumptions, agencies should consider and disclose the reasonably foreseeable direct and indirect emissions when analyzing the direct and indirect effects of the proposed action. Agencies should disclose the information and any assumptions used in the analysis and explain any uncertainties. To compare a project’s estimated direct and indirect emissions with GHG emissions from the no-action alternative, agencies should draw on existing, timely, objective, and authoritative analyses, such as those by the Energy Information Administration, the Federal Energy Management Program, or Office of Fossil Energy of the Department of Energy. In the absence of such analyses, agencies should use other available information.<sup>45</sup>

The guidance further specifies that estimating GHG emissions is appropriate and necessary for actions such as federal logging projects.

In addressing biogenic GHG emissions, resource management agencies should include a comparison of estimated net GHG emissions and carbon stock changes that are projected to occur with and without implementation of proposed land or resource management actions. This analysis should take into account the GHG emissions, carbon sequestration potential, and the changes in carbon stocks that are relevant to decision making in light of the proposed actions and timeframes under consideration.<sup>46</sup>

Although the 2016 CEQ guidance has been withdrawn,<sup>47</sup> the underlying requirement to consider climate change impacts under NEPA, including indirect and cumulative combustion impacts and loss of sequestration

foreseeably resulting from commercial logging decisions, has not changed.<sup>48</sup>

## B. Logging Old Growth Forests Has Significant, Negative Carbon Storage and Pollution Impacts Which the Forest Service Must Quantify.

Proposals such as the Twin Mountain II project are likely to have significant climate pollution impacts because the Tongass National Forest is one of the planet's critical carbon sinks. As the Forest Service has recognized:

The Tongass National Forest stores more forest carbon than any other national forest in the United States [hellip]. As such, a critical ecosystem service sustained by this forest is carbon sequestration (i.e., the removal of carbon dioxide from the atmosphere and keeping that carbon inactive by storing it in live or dead biomass as well as organic soil matter). This makes the Tongass National Forest a critical component in the global carbon cycle.<sup>49</sup>

The Forest Service has stated that [ldquo]the carbon stored in the Tongass National Forest makes up about 8 percent of the carbon currently stored in the forests of the United States.[rdquo]<sup>50</sup> Other Forest Service experts have concluded that prior studies have underestimated the Tongass's ability to sequester carbon in soils; as a result they estimate that the Tongass may store up to 12 percent of the carbon of all U.S. forests.<sup>51</sup> Whatever the number, the Tongass [ldquo]plays an important role in [the] amount of carbon that is stored globally as well as the global climatic condition [hellip] land management and other actions taken on the Tongass National Forest can affect climate change at a local, regional, and global scale.[rdquo]<sup>52</sup> The Tongass's moist, old forests, and the soil they protect, are particularly efficient at sequestering carbon.<sup>53</sup> A 2020 Forest Service technical report reinforced the conclusion that old-growth forests sequestered an outsized volume of carbon on the Tongass.<sup>54</sup>

Logging old-growth forests in particular worsens climate change by releasing significant amounts of carbon and by preventing such forests from continuing to sequester carbon.<sup>55</sup> [ldquo]Mature forests on the Tongass National Forest likely store considerably more carbon compared to younger forests in this area (within the individual trees themselves as well as within the organic soil layer found in mature forests).[rdquo]<sup>56</sup> A 2019 paper concluded that the [ldquo]primary (unlogged) forests on the Tongass store much more carbon than logged forests because of the relatively high percentage of old growth and long stable residence times of carbon stored in these forests, and in fact old growth forests are accruing biomass at a rate of approximately a Teragram a year.<sup>57</sup> When old-growth on the Tongass is cut down, the vast majority of the stored carbon in the forest is released over time as CO<sub>2</sub>, thereby converting forests from a sink to a [ldquo]source[rdquo] or [ldquo]emitter.[rdquo]<sup>58</sup> According to a 2019 International Panel on Climate Change (IPCC) report, deforestation causes climate pollution, and avoiding deforestation will reduce climate pollution.<sup>59</sup> The IPCC has similarly recommended avoiding land sector emissions[mdash]in other words, keeping trees standing[mdash]not logging old-growth.<sup>60</sup>

Further, to address the climate crisis, agencies cannot rely on the re-growth of cleared forests to make up for the carbon removed when old-growth forest is logged. One prominent researcher explains: [ldquo]It takes at least 100 to 350+ years to restore carbon in forests degraded by logging (Law et al. 2018, Hudiburg et al. 2009). If we are to prevent the most serious consequences of climate change, we need to keep carbon in the forests because we don't have time to regain it once the forest is logged (IPCC, 2018).[rdquo]<sup>61</sup>

This science thus demonstrates that the proposed Twin Mountain II project will worsen climate emissions by cutting down and eliminating up to 3,000 acres of old-growth forest, destroying the ability of those stands and that land to sequester carbon. Chainsawing forests, building roads and other facilities, and moving wood to mills or overseas markets will result in fossil fuel emissions, adding to climate pollution. This logging will occur at the same time that climate change is accelerating,<sup>62</sup> making the need to protect carbon stores even more urgent



than it was just a few years ago. Further, adding miles to the Tongass's road system may increase opportunities for motor vehicle use on newly constructed roads, which will cause additional fossil fuel combustion, and thus GHG impacts.<sup>63</sup>

To take the hard look that NEPA requires, any subsequently prepared environmental analysis must disclose quantitatively and qualitatively the increase in climate pollution and the loss of carbon fixing that the Twin Mountain II project will cause. The costs of climate change can be estimated using the Interagency Working Group's global estimate of the social cost of carbon.<sup>64</sup> We urge the Forest Service to use this metric.

#### VIII. The Forest Service Must Address Connected, Cumulative, or Similar Actions and Disclose Cumulative Effects.

Regulations implementing NEPA define "connected actions" as those that "are closely related and therefore should be discussed in the same impact statement."<sup>65</sup> Actions are connected if they "are interdependent parts of a larger action and depend on the larger action for their justification."<sup>66</sup> Further, "proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement."<sup>67</sup>

An agency must consider all "connected actions" in a single EIS.<sup>68</sup> The "purpose of this requirement is to prevent an agency from dividing a project into multiple actions, each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."<sup>69</sup>

NEPA regulations further require that agencies "shall" consider in a single EIS "cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement."<sup>70</sup> "Cumulative actions must be considered together to prevent an agency from dividing a project into multiple actions, each of which individually has an insignificant environmental impact, but which collectively has a substantial impact."<sup>71</sup> Courts have held that "where several foreseeable similar projects in a geographical region have a cumulative impact, they should be evaluated in a single EIS."<sup>72</sup>

NEPA regulations mandate that in evaluating the scope of an EIS, agencies "shall consider" "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. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement."<sup>73</sup>

NEPA further requires agencies to disclose not only the direct effects of its proposal, but the proposal's indirect effects and cumulative impacts. "Indirect effects" are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."<sup>74</sup> "Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.<sup>75</sup>

In determining what is "reasonably foreseeable," an agency must engage in "reasonable forecasting and speculation."<sup>76</sup> The agency "need not foresee the unforeseeable, but by the same token neither can it avoid drafting an impact statement simply because describing the environmental effects of and alternatives to particular agency action involves some degree of forecasting."<sup>77</sup> An agency "must use its best efforts to find out all that it reasonably can."<sup>78</sup>

Any subsequent NEPA analysis for the Twin Mountain II timber sale must address, as either connected or cumulative projects, or as cumulative impacts:

- The cumulative impacts of past logging on public and private land on Prince of Wales Island.
- The reasonably foreseeable impacts of increased logging in inventoried roadless areas on Prince of Wales Island due to the repeal of the Roadless Rule in Alaska, expected to be finalized later this month.<sup>79</sup>
- The impacts of reasonably foreseeable future logging on Forest Service, State of Alaska, Sealaska, Alaska Mental Health Trust, Native Corporation land, and/or other lands on or near Prince of Wales Island, including the 42.5 million board feet of timber identified for sale in FY 2021 through FY 2025 in the Craig and Thorne Bay Ranger Districts in the most recent 5-year timber sale schedule.<sup>80</sup>
- The [ldquo]Prince of Wales 2021 Road Access Project,[rdquo] Forest Service project number 58424, that involves a proposal to [ldquo]approve up to two FS 299 Applications for Transportation and Utility Systems and Facilities on Federal Land for NFS road access, construction, and/or reconstruction on NFS lands on Prince of Wales and Heceta islands.[rdquo]<sup>81</sup> This road and/or utility construction, when added to that Twin Mountain II timber sale, could have significant cumulative impacts on the Forest and its environment, and could require the Forest Service to abandon its proposal to analyze the Road Access Project via a categorical exclusion. Further, this project may be a connected or cumulative action that the Forest Service must address in a single EIS together with the Twin Mountain II timber sale.

Conclusion.

Thank you for this opportunity to comment. We look forward to commenting on the Draft EIS when it becomes available should the Forest Service continue to pursue this project.