

Data Submitted (UTC 11): 12/10/2019 9:00:00 AM

First name: Nathan

Last name: Svoboda

Organization: Alaska Chapter - The Wildlife Society

Title: President

Comments: Good afternoon,

On behalf of the Alaska Chapter of The Wildlife Society, please accept the attached comments regarding the Draft Environmental Impact Statement for alternatives to a Proposed Alaska Roadless Rule. Please let me know if you have any questions.

Thank you for your time and consideration.

Respectfully,

Nathan Svoboda

President

Alaska Chapter - The Wildlife Society

The following text was copy/pasted from an attached letter. The system cannot display the formatting, graphics, or tables from the attached original.

The Wildlife Society Alaska Chapter

Secretary Sonny Perdue

Department of Agriculture

Attn: Alaska Roadless Rule

USDA Forest Service

P.O. Box 21628

Juneau, Alaska 99802

Re: Alaska Chapter of The Wildlife Society Comments on the Draft Environmental Impact Statement for Alternatives to a Proposed Alaska Roadless Rule

Dear Secretary Perdue,

This letter represents the Alaska Chapter of The Wildlife Society's public comments on the Draft Environmental Impact Statement (DEIS) for Alternatives to a Proposed Alaska Roadless Rule.

The Wildlife Society (TWS) was founded in 1937 and is a non-profit scientific and educational association of over 15,000 professional wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to inspire, empower and enable wildlife professionals to sustain wildlife populations and habitats through science-based management and conservation. Our professional membership represents scientists, managers, educators, technicians, planners and others who work actively to study, manage and conserve wildlife and its habitats worldwide. The Alaska Chapter of TWS has about 200 members in Alaska representing wildlife scientists and resource managers including those working for state and federal agencies, Native organizations, universities, non-profit groups and consulting biologists.

These comments focus primarily on the DEIS preferred alternative and flaws in the scientific analysis of the DEIS. We also comment generally on the ecological values of roadless areas and old-

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growth forests, their importance as fish and wildlife habitats, and the continued, unsustainable high-grading of the rarest but most ecologically valuable large-tree old-growth stands on the Tongass. Fish and wildlife are a central component of the ecology of Southeast Alaska, and their old-growth habitat provides critical ecosystem services to people in the region, ranging from provisioning of deer meat, to providing salmon rearing habitat that is more resilient to climate change, to acting as a major draw for tourists, to providing cultural, spiritual and subsistence values to Native Alaskans.

The Alaska Chapter of The Wildlife Society strongly recommends Alternative 1 (the No Action Alternative) be selected in the final EIS and Record of Decision. Continuing the current roadless rule would best maintain the ecological integrity of the Tongass National Forest, maintain fish and wildlife values of the forest, and ensure this forest is sustainably managed in the long-term best interest of the American public.

The Preferred Alternative

Six alternatives were identified and evaluated in the DEIS ranging from no action to complete exemption of the Tongass from the national roadless rule. The Forest Service has recommended option 6, the full exemption, as the preferred alternative. The full exemption would open 9.2 million acres of inventoried roadless areas to the potential of new road construction and would make 165,000 old-growth acres suitable for logging.

Although changes to the roadless rule may not directly change the amount of logging scheduled under the forest plan, it would (a) allow much more opportunity to pick and choose where logging occurs in the near term (i.e. high-grading the most valuable old-growth forest stands), (b) open the possibility for much higher levels of future logging under an amended plan, and (c) further slow the USFS's planned transition to harvesting primarily second-growth forest. This action would ignore the broad public interest in conserving the roadless areas of the nation's largest national forest as well as decades of ecological science demonstrating the importance of roadless and old-growth habitats to wildlife. Moreover, the

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decision to exempt the Tongass from the roadless rule is not responsive to the overwhelming public comment received from national and local forest users, including sportsmen, subsistence users, fishing groups, tourism businesses, conservation organizations, professional scientific societies, and many southeast Alaska businesses and tribes.

Inadequate Scientific Analysis of the DEIS

Throughout the DEIS, there is a superficial analysis of the impacts of logging on fish and wildlife resources and the diversity of forest communities. We appreciate that the DEIS attempted to quantify the amount of high-volume and large-tree old growth on the forest and in the historical harvest. However, the impacts of this management were only given a cursory analysis, resulting in underestimates of the ecological impacts for the action alternatives. Below, we detail key areas of impact that were overlooked.

First, the amount of contiguous high-volume (or large-tree) old growth remaining within each biogeographic province was not presented. When fragmentation of remaining large-tree old growth is considered, the impact of logging and roading is amplified, especially for species that rely on habitat connectivity. For example, Albert and Schoen (2013) estimated that there has been a 93.8% reduction of contiguous, high-volume old growth on north central Prince of Wales Island (the most productive timber producing area of Alaska). These forest communities[mdash]always rare throughout southeast Alaska[mdash]provide important habitat features for many species of fish and wildlife, including spawning and rearing salmon, black-tailed deer, marten, flying squirrel, goshawks, marbled murrelets, and many cavity nesting birds. Further, some of these impacts will propagate to impact through food webs to affect other key wildlife species, and human stakeholders. For example, deer are the most abundant large herbivore across the Tongass and the most important terrestrial subsistence resource in southeast Alaska. High-volume (large-tree) old growth is critical for maintaining resilient and stable deer populations in southeast Alaska (Schoen and Kirchhoff 1990). Loss of old-growth habitat will negatively impact deer, and thus reduce the

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productivity of wolves that prey on deer, as well as harm human subsistence hunters (Person and Brinkman 2013). Likewise, impacts to salmon[mdash]a keystone species in southeast Alaska[mdash]will affect bears and many other species of birds and mammals, along with the fishing and tourism industries. Tourism and fishing are major economic drivers in southeast Alaska. These long-term cumulative impacts were not adequately addressed in the DEIS. As a result, there are also likely to be significant differences across alternatives in terms of ecosystem services, and loss thereof, to human stakeholders in the region.

On page 3-55, the DEIS states "Large-tree POG (productive old growth) makes up almost 11 percent of all POG." This old-growth community represents about 4% of the Tongass land base and has been the focus of commercial timber harvest for 60 years. The DEIS fails to adequately identify its rarity and the significant high-grading that has reduced this important habitat type from its pre-1950 baseline. This rare forest community has also been further reduced by logging on state and Native corporation lands in southeast Alaska.

On page 3-56, the DEIS states that "Approximately 92 percent of the estimated original (prior to 1954) 5.4 million acres of POG that occurred on the Tongass remains today (Table 3.3a-2). That may be true but the statement significantly underestimates the high-grading and fragmentation of the original large-tree old-growth stands that we know are so important as fish and wildlife habitats. The DEIS (p. 3[shy]67) notes that over 35% of the suitable acres added in Alternative 6 (the preferred alternative) are acres of large-tree old growth.

The DES indicates that all action alternatives (including alternative 6) would have minimal or "negligible"

environmental impacts (p. 3-112). The DEIS also states (p. 3-44) that "overall timber harvest levels are expected to remain unaffected by the final rule." In terms of acres this may be true but in terms of specific forest habitats (like large-tree old growth), this is very misleading. It is not just the total acres harvested that matter. It is also the quality, type, and configuration of those habitats that affect the conservation of fish and wildlife.

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One of the serious flaws in this DEIS is a failure to recognize the shifting baseline of historic harvest levels. What appears to be a moderate harvest level in 2019 adds to significant and directed harvest since the 1950s when industrial forestry began on the Tongass. The cumulative impacts of clearcutting old growth and high-grading the rarest large-tree (and cedar) stands should have been evaluated in detail in the DEIS from 1950 through the current time on all land jurisdictions of southeast Alaska. Given the long successional timescales of the temperate rainforest, cut stands will not regain old-growth ecological values for at least 150-200+ years. In addition, there was little analysis of the impacts of climate change on ecology of southeast Alaska and long-term resilience of the forest's fish and wildlife resources. High-quality contiguous old-growth will likely be important for many species facing hotter, drier summer conditions.

The Value of Roadless Areas

Scientists have documented many impacts roads have on fish and wildlife populations and their habitats (Trombulak and Frissell 2000). Roads alter and fragment habitats into smaller and more isolated patches; they directly and indirectly kill wildlife and change their behavior; they introduce deleterious invasive species; they cause soil erosion and sedimentation of water bodies which impact fish and aquatic organisms; and they facilitate resource development activities which further impact fish and wildlife populations. Roads constructed into roadless habitat are particularly problematic for large carnivores like bears (Apps et al., McLellan 1990, Suring and Del Frate 2002) and wolves (Person and Russell 2009, Gilbert et al. 2015). Roads increase interactions with humans and often result in increased mortality from poaching, killing for defense of life or property and legal hunting. Only legal hunting can be reasonably managed. Today, roadless areas have become important for maintaining valuable water sources, critical refugia for many species of vulnerable plants and animals, and important areas for remote recreation. The Roadless Rule was one of the most broadly reviewed and supported public land management policies in

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the history of our nation. It received over six-hundred public hearings across the nation and more than 1.6 million public comments, the majority supportive.

The 9.3 million acres of inventoried roadless areas (IRA) on the Tongass encompass approximately 2.5 million acres of productive old-growth. There are approximately 190,000 acres of rare large-tree old growth in IRAs on the Tongass, about half of all remaining large-tree old growth on the entire Tongass National Forest. If roadless areas are opened to road construction and timber harvesting, more old growth will be clear-cut and much of that harvest will target the rare large-tree old-growth stands that are so important as fish and wildlife habitat.

The 2001 Roadless Area Conservation Rule recognized the important values and significant ecological benefits that intact forests provide the American public. Scientists and land managers have long recognized that roadless areas are crucial to the protection of our nation's wildlife, fisheries, and water resources because they represent the least disturbed habitats in areas of extensive disturbance from resource development. Roads result in habitat

loss, habitat fragmentation, sedimentation of aquatic water bodies and mass erosion, wildlife displacement and direct mortality from road kills, disruption of fish passage, and introduction of invasive species.

Roadless areas are highly valued by many Americans as places for recreation. Growth in the tourism industry is rapidly outpacing the timber industry in southeast Alaska which relies heavily on federal subsidies. Roadless areas include the largest areas of intact old-growth forests, critical habitat for species of conservation concern (including threatened and endangered species), the greatest diversity of habitat types, refugia for large carnivores including brown bears and wolves, vast landscapes with naturally connected habitats, and important habitat reserves for salmon and other aquatic species.

There is scientific consensus that climate change is a significant threat to the Earth's biological diversity and human prosperity. The importance of maintaining large, intact areas of national forest lands—and, their large carbon stores—is one of the available tools for moderating climate change. For

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example, intact forests on the Tongass store more atmospheric carbon than any forest in the nation (at least 8% of total carbon stored in US forests is in the Tongass) (Leighty et al. 2006). Other ecosystem services that roadless old-growth forest habitats provide range from tourism (aesthetic services, existence/viewing values) and provisioning services like deer and salmon to carbon sequestration services and cultural services like traditional roles of fish and wildlife for Native Alaskan cultures.

Safeguarding roadless areas in our national forests is essential for conserving the diversity and integrity of these national lands. Maintaining the nation's remaining roadless areas within our national forests is strongly supported by the scientific community

Continued Clear-cutting of Old Growth

The Earth's old-growth forests are today exceedingly rare. In the United States, an estimated 2–15% of our original old-growth forests still remain, and most of that occurs on the Tongass National Forest (Thomas et al. 1988). The ecological structure and function of old growth requires many centuries to develop. Thus, when clear-cut on typical 100-year timber rotations, the many ecological, economic, and societal values old-growth forests support will be permanently lost. In practical terms, old-growth forests are a non-renewable resource.

The Tongass National Forest and the forests of the northern British Columbia coast represent the most significant portion of old-growth coastal temperate rainforest on Earth (DellaSala et al. 2011, Orians et al. 2013). Today, the Tongass National Forest is the only national forest in the United States that is still clearcutting old growth. The scientific support for ending this unsustainable silviculture practice is broad. In 2003, former Forest Service Chiefs Jack Ward Thomas and Mike Dombeck urged that "...harvest of old growth from the national forests should come to an end..." (Seattle PI, 8-23-03)

In 2014, 78 scientists, led by former chiefs Thomas and Dombeck, sent a letter to the President of the United States requesting that he "...direct the Secretary of Agriculture and Chief of the U.S. Forest

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Service to utilize their authority to craft a National OldGrowth Policy that fully protects the remaining old-growth

forests on National Forest lands throughout the United States..." (Letter to President Obama, 6-24-14).

In 2015, seven scientific societies (American Fisheries Society, American Ornithologist's Union, American Society of Mammalogists, Ecological Society of America, Pacific Seabird Group, Society for Conservation Biology, and The Wildlife Society), representing a combined membership of over 30,000 scientists and natural resource professionals, sent a joint letter to Agriculture Secretary Vilsack regarding the clearcutting of Tongass old growth. The letter stated in part "The Tongass National Forest has the greatest abundance, of old growth remaining in the nation. Managing for its old-growth forests, carbon stores, and fish and wildlife populations, would provide an example to the world of the administration's commitment to climate change remediation as well as assure that the Tongass region will continue to provide robust natural resources for future generations. For these reasons, we request that you (1) provide additional guidance to the Forest Service to end clear-cut logging of old-growth forests during the forest plan amendment process, and (2) ensure that the timber industry's transition to second growth is completed as rapidly as possible, ideally within the next three years." (Letter to Secretary Vilsack, 1-20[shy]15).

And this year, over 230 scientists with expertise in conservation science, climate change, wildlife and fisheries policy, and economics"... urged the Forest Service to uphold the National Roadless Area Conservation Rule on the Tongass National Forest in southeast Alaska." (Forest Legacies letter to USFS, 10-16-19)

The inevitable result of modifying the current Roadless Rule to totally exempt the Tongass National Forest will be further clear-cutting of non-renewable old-growth forest stands. Wildlife species that use or depend on old-growth forest habitat during their annual cycle include Sitka black-tailed deer, marten, river otter, black bears, brown bears, wolves, flying squirrels, goshawk, marbled murrelet, and a variety of other forest birds. Modifying the Roadless Rule on the Tongass will also result in the continued

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high-grading of the rare, large-tree old-growth stands which represent some of the most valuable fish and wildlife habitats on the forest.

On northern Prince of Wales Island, many watersheds have had timber harvests of 50% or more. The loss of large-tree old growth and cedar stands has now reached an alarming level that may affect population persistence in some watersheds. However, mere persistence of a population does not equate with healthy or useable populations. Persistence of deer on northern Prince of Wales will not necessarily meet human demand for subsistence deer harvests nor will persistence meet the needs of wolves that depend on deer as their primary prey resource. In fact, the second-growth forests that dominate the timber harvest rotation approximately twenty years following clear-cutting create the least preferred habitat for traditional hunting practices (Brinkman et al. 2009). Thus, these relatively poor habitats for producing local wild foods persist for several human generations. Further, the likelihood of increased future logging as a result of exempting the Tongass from the Roadless rule must be acknowledged and specifically examined in the FEIS. The analysis should reveal how future increases in logging, capped by the projected increase in suitable timber acreage under each alternative, would translate into reduced populations of old-growth dependent species and subspecies.

Failure to Sustain Forest Diversity and Ecological Integrity

As a result of the continued clearcutting of old-growth forests and the disproportionate harvest[mdash]high-grading[mdash]of the rare and most valuable old-growth stands, rolling back the Roadless Rule on the Tongass will result in unsustainable forest management on the Tongass, particularly on northern Prince of Wales Island

(POW).

Under the Multiple Use-Sustained Yield Act of 1960, 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 National Forest Management Act of 1976 (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." 16 U.S.C. 1604(g)(3)(B). 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 (and also old-growth cedar trees). Because these stands provide important habitat benefits to many plant and animals species, the natural abundance of those species may also be at risk. There is 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%.

The FEIS analysis for modifying the Roadless Rule on the Tongass must address how the Forest Service will restore or maintain the diversity of ecosystems and habitat types within the planning area. The large-tree old growth should be considered a distinct habitat type under the planning regulations. These forest communities (as well as old-growth cedar stands) are very rare and have been a primary target of past timber harvest. These forest communities (habitat types) are at significant risk of being largely eliminated on northern POW and a few other bio-geographic provinces of the Tongass. This pattern of forest management significantly increases the risks of reducing Sitka black-tail deer populations below traditional harvest levels as well as posing potential risks of local extirpation to the Alexander Archipelago wolf population in the POW complex. In addition, the recent targeted timber harvest on western redcedar and Alaska-cedar on the southern Tongass will diminish natural forest diversity and the species associated with those forest types.

In terms of maintaining forest and habitat diversity, the Tongass National Forest was managed unsustainably over the last six decades. Opening new inventoried roadless areas on the Tongass, and particularly on Prince of Wales Island, will open the door to future loss of old growth broadly and large-tree old growth specifically. It can be demonstrated that these non-renewable ecosystems no longer exist within their "natural range of variation" across the Tongass or within specific biogeographic provinces like northern POW.

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Considering that productive old growth (and specifically large-tree old growth) on the Tongass is a non-renewable ecosystem, the historical pattern of logging on the Tongass National Forest has had a major impact on the "composition, structure, function, and connectivity" of this ecosystem. The integrity of this ecosystem is at risk particularly in heavily harvested regions like northern Prince of Wales, Mitkof, and eastern Chichagof islands. The resilience of this ecosystem will also be stressed by climate change. This will be further exacerbated by the significant reduction and fragmentation of specific habitat types like large-tree old growth and stands of old-growth cedar.

Summary and Conclusions:

Alaska's Tongass National Forest is the greatest repository of old-growth temperate rainforest remaining on Earth. The large-tree old-growth stands[mdash]of immense value as fish and wildlife habitat[mdash]are exceedingly rare today in the U.S. and throughout the world because they have been the target of logging for

more than a century. Excluding the Tongass National Forest from the national Roadless Rule will have a substantial, long-term impact on forest ecology and the conservation of fish and wildlife in America's largest national forest, with cascading effects to the many people and rural communities who rely on the forest and its fish and wildlife populations for sustenance, employment, and cultural and spiritual values. For these reasons, the Alaska Chapter of The Wildlife Society recommends Alternative 1, the No Action Alternative, as the best alternative for maintaining the natural diversity and abundance of southeast Alaska's fish and wildlife resources.

Thank you for considering our comments and recommendations.

Sincerely,

Nathan Svoboda

President

Alaska Chapter of The Wildlife Society

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References Cited:

Apps, C. et al. 2004. Estimating grizzly bear distribution and abundance relative to habitat and human influence. *Journal of Wildlife Management* 68:138-152.

Albert D. and J. Schoen. 2013. Use of historical logging patterns to identify disproportionately logged ecosystems within temperate rainforests of southeastern Alaska. *Conservation Biology* 27:774-784.

Brinkman, T. et al. 2009. Linking hunter knowledge with forest change to understand changing deer harvest opportunities in intensively logged landscapes. *Ecology and Society* 14:36.

DellaSala, D. et al. 2011. Temperate and Boreal Rainforests of the Pacific Coast of North America. In DellaSala, D. Editor. *Temperate and boreal rainforests of the world: ecology and conservation*. Island Press: Washington, D.C.

Gilbert, S. et al. 2015. Final Report to the Fish and Wildlife Service on the modeling and assessment of influential variables on future wolf populations on Prince of Wales Island.

Orians, G. et al. 2013. Synthesis. In Orians, G. and J. Schoen (eds), *North Pacific Temperate Rainforests Ecology and Conservation*. University of Washington Press: Seattle, WA.

Leighty, W. et al. 2006. Effects of Management on Carbon Sequestration in Forest Biomass in Southeast Alaska. *Ecosystems* 9: 1051-1065

McLellan, B. 1990. Relationships between human industrial activity and grizzly bears, In *Bears: Their Biology and Management*. pp. 57-64. International Association for Bear Research and Management, Victoria, BC, Canada.

Person, D. and A. Russell. 2008. Correlates of mortality in an exploited wolf population. *Journal of Wildlife Management* 72:1540-1549.

Person, D. and T. Brinkman. 2013. Succession Debt and Roads: Short- and Long-term Effects of Timber Harvest on a Large-mammal Predator-Prey Community in Southeast Alaska. In G. Orians, and J. Schoen Eds. North Pacific Temperate Rainforests Ecology and Conservation. University of Washington Press: Seattle, WA.

Schoen, J. and M. Kirchhoff. 1990. Seasonal habitat use of Sitka black-tailed deer on Admiralty Island. Journal of Wildlife Management 4:371-378.

Suring, L. and G. Del Frate. 2002. Spatial analysis of locations of brown bears killed in defense of life or property on the Kenai Peninsula, Alaska, USA. Ursus 13:237-245.

Thomas, J. et al. 1988. Management and conservation of old-growth forests in the United States. Wildlife Society Bulletin 16:252-262.

Trombulak, S. and C. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. Conservation Biology 14:18-30.

[Position]

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Roadless areas are highly valued by many Americans as places for recreation. Growth in the tourism industry is rapidly outpacing the timber industry in southeast Alaska which relies heavily on federal subsidies. Roadless areas include the largest areas of intact old-growth forests, critical habitat for species of conservation concern (including threatened and endangered species), the greatest diversity of habitat types, refugia for large carnivores including brown bears and wolves, vast landscapes with naturally connected habitats, and important habitat reserves for salmon and other aquatic species.

There is scientific consensus that climate change is a significant threat to the Earth's biological diversity and

human prosperity. The importance of maintaining large, intact areas of national forest lands—and, their large carbon stores—is one of the available tools for moderating climate change. For

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example, intact forests on the Tongass store more atmospheric carbon than any forest in the nation (at least 8% of total carbon stored in US forests is in the Tongass) (Leighty et al. 2006). Other ecosystem services that roadless old-growth forest habitats provide range from tourism (aesthetic services, existence/viewing values) and provisioning services like deer and salmon to carbon sequestration services and cultural services like traditional roles of fish and wildlife for Native Alaskan cultures.

Safeguarding roadless areas in our national forests is essential for conserving the diversity and integrity of these national lands. Maintaining the nation's remaining roadless areas within our national forests is strongly supported by the scientific community

Continued Clear-cutting of Old Growth

The Earth's old-growth forests are today exceedingly rare. In the United States, an estimated 2[shy]15% of our original old-growth forests still remain, and most of that occurs on the Tongass National Forest (Thomas et al. 1988). The ecological structure and function of old growth requires many centuries to develop. Thus, when clear-cut on typical 100-year timber rotations, the many ecological, economic, and societal values old-growth forests support will be permanently lost. In practical terms, old-growth forests are a non-renewable resource.

The Tongass National Forest and the forests of the northern British Columbia coast represent the most significant portion of old-growth coastal temperate rainforest on Earth (DellaSala et al. 2011, Orians et al. 2013). Today, the Tongass National Forest is the only national forest in the United States that is still clearcutting old growth. The scientific support for ending this unsustainable silviculture practice is broad. In 2003, former Forest Service Chiefs Jack Ward Thomas and Mike Dombeck urged that "...harvest of old growth from the national forests should come to an end..." (Seattle PI, 8-23-03)

In 2014, 78 scientists, led by former chiefs Thomas and Dombeck, sent a letter to the President of the United States requesting that he "...direct the Secretary of Agriculture and Chief of the U.S. Forest

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Service to utilize their authority to craft a National OldGrowth Policy that fully protects the remaining old-growth forests on National Forest lands throughout the United States..." (Letter to President Obama, 6-24-14).

In 2015, seven scientific societies (American Fisheries Society, American Ornithologist's Union, American Society of Mammalogists, Ecological Society of America, Pacific Seabird Group, Society for Conservation Biology, and The Wildlife Society), representing a combined membership of over 30,000 scientists and natural resource professionals, sent a joint letter to Agriculture Secretary Vilsack regarding the clearcutting of Tongass old growth. The letter stated in part "The Tongass National Forest has the greatest abundance, of old growth remaining in the nation. Managing for its old-growth forests, carbon stores, and fish and wildlife populations, would provide an example to the world of the administration's commitment to climate change remediation as well as assure that the Tongass region will continue to provide robust natural resources for future generations. For these reasons, we request that you (1) provide additional guidance to the Forest Service to end clear-cut logging

of old-growth forests during the forest plan amendment process, and (2) ensure that the timber industry's transition to second growth is completed as rapidly as possible, ideally within the next three years." (Letter to Secretary Vilsack, 1-20[shy]15).

And this year, over 230 scientists with expertise in conservation science, climate change, wildlife and fisheries policy, and economics"... urged the Forest Service to uphold the National Roadless Area Conservation Rule on the Tongass National Forest in southeast Alaska." (Forest Legacies letter to USFS, 10-16-19)

The inevitable result of modifying the current Roadless Rule to totally exempt the Tongass National Forest will be further clear-cutting of non-renewable old-growth forest stands. Wildlife species that use or depend on old-growth forest habitat during their annual cycle include Sitka black-tailed deer, marten, river otter, black bears, brown bears, wolves, flying squirrels, goshawk, marbled murrelet, and a variety of other forest birds. Modifying the Roadless Rule on the Tongass will also result in the continued

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high-grading of the rare, large-tree old-growth stands which represent some of the most valuable fish and wildlife habitats on the forest.

On northern Prince of Wales Island, many watersheds have had timber harvests of 50% or more. The loss of large-tree old growth and cedar stands has now reached an alarming level that may affect population persistence in some watersheds. However, mere persistence of a population does not equate with healthy or useable populations. Persistence of deer on northern Prince of Wales will not necessarily meet human demand for subsistence deer harvests nor will persistence meet the needs of wolves that depend on deer as their primary prey resource. In fact, the second-growth forests that dominate the timber harvest rotation approximately twenty years following clear-cutting create the least preferred habitat for traditional hunting practices (Brinkman et al. 2009). Thus, these relatively poor habitats for producing local wild foods persist for several human generations. Further, the likelihood of increased future logging as a result of exempting the Tongass from the Roadless rule must be acknowledged and specifically examined in the FEIS. The analysis should reveal how future increases in logging, capped by the projected increase in suitable timber acreage under each alternative, would translate into reduced populations of old-growth dependent species and subspecies.

Failure to Sustain Forest Diversity and Ecological Integrity

As a result of the continued clearcutting of old-growth forests and the disproportionate harvest[mdash]high-grading[mdash]of the rare and most valuable old-growth stands, rolling back the Roadless Rule on the Tongass will result in unsustainable forest management on the Tongass, particularly on northern Prince of Wales Island (POW).

Under the Multiple Use-Sustained Yield Act of 1960, 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 National Forest Management Act of 1976 (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." 16 U.S.C. 1604(g)(3)(B). 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 (and also old-growth cedar trees). Because these stands provide important habitat benefits to many plant and animals species, the natural abundance of those species may also be at risk. There is 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%.

The FEIS analysis for modifying the Roadless Rule on the Tongass must address how the Forest Service will restore or maintain the diversity of ecosystems and habitat types within the planning area. The large-tree old growth should be considered a distinct habitat type under the planning regulations. These forest communities (as well as old-growth cedar stands) are very rare and have been a primary target of past timber harvest. These forest communities (habitat types) are at significant risk of being largely eliminated on northern POW and a few other bio-geographic provinces of the Tongass. This pattern of forest management significantly increases the risks of reducing Sitka black-tail deer populations below traditional harvest levels as well as posing potential risks of local extirpation to the Alexander Archipelago wolf population in the POW complex. In addition, the recent targeted timber harvest on western redcedar and Alaska-cedar on the southern Tongass will diminish natural forest diversity and the species associated with those forest types.

In terms of maintaining forest and habitat diversity, the Tongass National Forest was managed unsustainably over the last six decades. Opening new inventoried roadless areas on the Tongass, and particularly on Prince of Wales Island, will open the door to future loss of old growth broadly and large-tree old growth specifically. It can be demonstrated that these non-renewable ecosystems no longer exist within their "natural range of variation" across the Tongass or within specific biogeographic provinces like northern POW.

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Considering that productive old growth (and specifically large-tree old growth) on the Tongass is a non-renewable ecosystem, the historical pattern of logging on the Tongass National Forest has had a major impact on the "composition, structure, function, and connectivity" of this ecosystem. The integrity of this ecosystem is at risk particularly in heavily harvested regions like northern Prince of Wales, Mitkof, and eastern Chichagof islands. The resilience of this ecosystem will also be stressed by climate change. This will be further exacerbated by the significant reduction and fragmentation of specific habitat types like large-tree old growth and stands of old-growth cedar.

Summary and Conclusions:

Alaska's Tongass National Forest is the greatest repository of old-growth temperate rainforest remaining on Earth. The large-tree old-growth stands[mdash]of immense value as fish and wildlife habitat[mdash]are exceedingly rare today in the U.S. and throughout the world because they have been the target of logging for more than a century. Excluding the Tongass National Forest from the national Roadless Rule will have a substantial, long-term impact on forest ecology and the conservation of fish and wildlife in America's largest national forest, with cascading effects to the many people and rural communities who rely on the forest and its fish and wildlife populations for sustenance, employment, and cultural and spiritual values. For these reasons, the Alaska Chapter of The Wildlife Society recommends Alternative 1, the No Action Alternative, as the best alternative for maintaining the natural diversity and abundance of southeast Alaska's fish and wildlife resources.

Thank you for considering our comments and recommendations.

Sincerely,

Nathan Svoboda

President

Alaska Chapter of The Wildlife Society

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References Cited:

Apps, C. et al. 2004. Estimating grizzly bear distribution and abundance relative to habitat and human influence. *Journal of Wildlife Management* 68:138-152.

Albert D. and J. Schoen. 2013. Use of historical logging patterns to identify disproportionately logged ecosystems within temperate rainforests of southeastern Alaska. *Conservation Biology* 27:774-784.

Brinkman, T. et al. 2009. Linking hunter knowledge with forest change to understand changing deer harvest opportunities in intensively logged landscapes. *Ecology and Society* 14:36.

DellaSala, D. et al. 2011. Temperate and Boreal Rainforests of the Pacific Coast of North America. In DellaSala, D. Editor. *Temperate and boreal rainforests of the world: ecology and conservation*. Island Press: Washington, D.C.

Gilbert, S. et al. 2015. Final Report to the Fish and Wildlife Service on the modeling and assessment of influential variables on future wolf populations on Prince of Wales Island.

Orians, G. et al. 2013. Synthesis. In Orians, G. and J. Schoen (eds), *North Pacific Temperate Rainforests Ecology and Conservation*. University of Washington Press: Seattle, WA.

Leighty, W. et al. 2006. Effects of Management on Carbon Sequestration in Forest Biomass in Southeast Alaska. *Ecosystems* 9: 1051-1065

McLellan, B. 1990. Relationships between human industrial activity and grizzly bears, In *Bears: Their Biology and Management*. pp. 57-64. International Association for Bear Research and Management, Victoria, BC, Canada.

Person, D. and A. Russell. 2008. Correlates of mortality in an exploited wolf population. *Journal of Wildlife Management* 72:1540-1549.

Person, D. and T. Brinkman. 2013. Succession Debt and Roads: Short- and Long-term Effects of Timber Harvest on a Large-mammal Predator-Prey Community in Southeast Alaska. In G. Orians, and J. Schoen Eds. *North Pacific Temperate Rainforests Ecology and Conservation*. University of Washington Press: Seattle, WA.

Schoen, J. and M. Kirchhoff. 1990. Seasonal habitat use of Sitka black-tailed deer on Admiralty Island. *Journal of Wildlife Management* 4:371-378.

Suring, L. and G. Del Frate. 2002. Spatial analysis of locations of brown bears killed in defense of life or property on the Kenai Peninsula, Alaska, USA. *Ursus* 13:237-245.

Thomas, J. et al. 1988. Management and conservation of old-growth forests in the United States. *Wildlife Society*

Bulletin 16:252-262.

Trombulak, S. and C. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. Conservation Biology 14:18-30.

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