Alaska Chapter
American Fisheries Society
https://www.afs-alaska.org/

January 20, 2022

Dear U.S. Department of Agriculture Secretary Vilsack:

The Alaska Chapter of the American Fisheries Society (AFS) was formed in 1971 and represents over 250 professional fishery scientists and resource managers who work in the private sector, academic institutions, and Tribal, state, and federal agencies. The Alaska Chapter is dedicated to maintaining high standards for the fisheries profession and ensuring conservation of Alaska's fisheries.

The Alaska Chapter AFS submitted comments[1] in response to the Proposed Rule and Draft Environmental Impact Statement released by the U.S. Forest Service on October 17, 2019 to exempt the Tongass National Forest from the 2001 Roadless Area Conservation Rule ("Roadless Rule"). Consistent with our conclusions in 2019, and based on our expertise in fishery science and review of relevant research, the Alaska Chapter AFS supports the U.S. Department of Agriculture (USDA) reinstating protections under the Roadless Rule for the Tongass National Forest in Southeast Alaska.

By restoring the Roadless Rule, the USDA will avoid the "numerous negative direct, indirect and cumulative effects" to aquatic and riparian habitat associated with road building and clearcutting in inventoried roadless areas.[2] For example, timber roads and clearcutting can increase sedimentation, degrade water quality, fragment habitat, and increase high temperature regimes.[3] Sedimentation alone has caused salmon productivity to decline in numerous studied watersheds.[4]

In addition, fishery scientists from the Alaska Department of Fish and Game have identified strong negative correlations between logging road density, timber extraction and salmon productivity.[5] These concerns are consistent with the numerous scientific studies showing that clearcutting and timber road construction in salmon habitat harms habitat productivity for salmon.[6] According to the

[1] https://afs-alaska.org/ak-afs-tongass/
[2] U.S. Dept. of Agriculture Forest Service. 2000. Forest Service Roadless Area Conservation Final Environmental Impact Statement Vol. I. at 3-169. Washington, D.C. November 2000.
[3] Ibid. At 3-163
[4] Ibid. At 3-166
[5] Halupka, K.C., M.D. Bryant, M.F. Willson, and F.H. Everest. 2000. Biological characteristics and population status of anadromous salmon in Southeast. General Technical Report PNW-GTR-468. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR. 255 pp.
[6] USDA Forest Service. 2000. Forest Roads – a synthesis of scientific information (identifying degraded fish habitat by roads and a clear correlation between road density and fish production); Wilson, K.L., Bailey, C.J., Davies, T.D., and Moore, J.W. 2022. Marine and freshwater regime changes impact a community of migratory Pacific salmonids in decline. Glob. Chang. Biol. 28(1): 72–85; M.D. Bryant & F.H. Everest. 1998. Management and conditions of watersheds in Southeast Alaska: the persistence of anadromous salmon; Halupka, K., M. Bryant, M. Willson, and F. Everest. 2000. Biological characteristics and population status of anadromous salmon in southeast Alaska at 54.

National Marine Fisheries Service, roads are a primary cause of salmonid decline, and may have unavoidable effects on streams regardless of how well they are located, designed or maintained.[7]

As the climate crisis and its impacts to aquatic resources intensifies in the decades ahead, reducing effects of non-climate stressors, such as impacts from roads, to maintain biological diversity and increase landscape area devoted to critical habitat and resilient ecosystems are key adaptive management tools.[8] Models of Southeast Alaska show the region's diverse landscapes depict a predictable pattern of climate-driven change, with steeper snow-fed mountainous watersheds exhibiting large increases in discharge, an earlier spring melt, and a transition into rain-fed hydrologic patterns.[9] The sharp environmental gradients from icefields to coastal estuaries of Southeast Alaska create unique climate sensitivity to warmer and seasonally wetter climate projections with elevated snowlines.[10] In the Pacific Northwest, changes to hydrologic regimes because of climatic warming are resulting in higher peak flow events, causing damage to valley bottom and floodplain roads and related culvert and bridging infrastructure.[11] These hydrologic changes will likely be seen on the Tongass National Forest and throughout this region and reducing road building activities may help mitigate these impacts.

In conclusion, the Alaska Chapter AFS fully supports reinstating the Roadless Rule protections for the Tongass National Forest. The Tongass watersheds and the sustainable commercial, recreational, and subsistence fisheries they maintain represent a critical resource of national and global importance. Protections under the Roadless Rule will support healthy and intact fish habitat in one of the most productive salmon fisheries in the world and thus promote the sustainability of this region. Furthermore, reinstating these protections is increasingly important as the impacts of climate change accelerate.

Thank you for your consideration,

Sue Mauger, President
On behalf of the Alaska Chapter of the American Fisheries Society

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Gen. Tech. Rep. PNW-GTR-461. Portland, OR. U.S. Dept. of Agriculture, Forest Service. Pacific Northwest Research Station 255 p.; U.S. Forest Service. 1995. Anadromous Fish Habitat Assessment.

[7] U.S. Dept. of Agriculture Forest Service. 2000. Forest Service Roadless Area Conservation Final Environmental Impact Statement Vol. I. at 3-169. Washington, D.C. November 2000.

[8] Mantua, N.J., and C.L. Raymond. 2014. Climate change, fish, and fish habitat in the North Cascade Range. In Raymond, C.L., D.L. Peterson, and R.M. Rochefort. Eds. Climate change vulnerability and adaptation in the North Cascades Region. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, General Technical Report PNW-GTR-892.

[9] Shanley, C. S., and D.M. Albert. 2014. Climate change sensitivity index for Pacific salmon habitat in Southeast Alaska PLoS ONE 9: 1–13.

[10] Shanley, C. S., et al. 2015. Climate change implications in the northern coastal temperate rainforest of North America Clim. Change, 130: 155–70.

[11] Gaines, W.L., et al. 2022. Climate change and forest management on federal lands in the Pacific Northwest, USA: Managing for dynamic landscapes. Forest Ecology and Management. https://doi.org/10.1016/j.foreco.2021.119794.