Data Submitted (UTC 11): 12/16/2019 9:00:00 AM
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Title:
Comments: Please see attached.

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December 16, 2019

Alaska Roadless Rule

USDA Forest Service

P.O. Box 21628

Juneau, Alaska 99802-1628

RE: Public Comments of Patagonia Works on the Department of Agriculture Forest Service Proposed Rule [ldquo]Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska[rdquo] and Draft Environmental Impact Statement Rulemaking for Alaska Roadless Areas

Dear Mr. Tu:

This firm represents Patagonia Works, a certified B-corporation incorporated in the State of California. Attached please find Patagonia Works[rsquo] comment on the Department of Agriculture Forest Service Proposed Rule [ldquo]Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska[rdquo] and Draft Environmental Impact Statement Rulemaking for Alaska Roadless Areas. If you have any questions about this comment, please contact me using the contact information provided on this letterhead.

Sincerely,

/s/ Kennon G. Meyer

KGM

Attachment

DEPARTMENT OF AGRICULTURE FOREST SERVICE PROPOSED RULE SPECIAL AREAS; ROADLESS AREA CONSERVATION; NATIONAL FOREST SYSTEM LANDS IN ALASKA AND DRAFT ENVIRONMENTAL IMPACT STATEMENT RULEMAKING FOR ALASKA ROADLESS AREAS

84 Federal Register 55,522

SUBMITTED ELECTRONICALLY
Ken Tu
Alaska Roadless Rule
USDA Forest Service
P.O. Box 21628
Juneau, Alaska 99802-1628

I. Introduction

Patagonia Works ([ldquo]Patagonia[rdquo]) appreciates the opportunity to provide comments on the United States Department of Agriculture ([ldquo]USDA[rdquo]) Forest Service[rsquo]s ([ldquo]USFS[rdquo]) Proposed Rule Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska (the [ldquo]Proposed Rule[rdquo])1 and the October 2019 Draft Environmental Impact Statement for the Rulemaking for Alaska Roadless Areas ([ldquo]DEIS[rdquo]).

Patagonia is an outdoor-apparel company with a 40-year history of environmental activism. Protecting and preserving the environment is a core business tenet as reflected in the Company[rsquo]s mission statement: [ldquo]Patagonia is in business to save our home planet.[rdquo] In 2012, Patagonia became a California benefit corporation, enshrining its blended goals of business and conservation into its Articles of Incorporation. Patagonia believes deeply in the urgent shared responsibility to protect the environment. The future of Patagonia[rsquo]s business depends on the health of the wild places that its customers explore, which include the Tongass National Forest (the [ldquo]Tongass[rdquo]).

Patagonia has spent a significant amount of time and resources fighting to protect and preserve the sanctity of the Tongass. Patagonia has worked diligently to support conservation efforts throughout the years in an effort to protect the nation[rsquo]s largest national forest stretching across some of the most pristine landscapes in Southeast Alaska. Going back as early as the 1990s, Patagonia has provided grant funding totaling $197,000 to the Southeast Alaska Conservation Council and $185,500 to the Sitka Conservation Society, two groups that are dedicated to protecting the Tongass and the fish and wildlife that make the forest their home. These organizations also currently utilize Patagonia[rsquo]s Action Works platform, which connects individuals to organizations working on environmental issues in their community.2 Patagonia has also granted Audubon Alaska $60,000 and currently has similar grants pending with the Wilderness Society and Women[rsquo]s Earth & Climate Action Network.

Patagonia strongly opposes the exemption of the Tongass from the essential protection of the 2001 Roadless Area Conservation Rule ([ldquo]Roadless Rule[rdquo]). The Roadless Rule is essential for limiting harmful logging and road-building activity in National Forest Systems throughout the country. As climate change intensifies and the effects of global warming are seen more readily across the country, protecting the nation[rsquo]s most vulnerable and essential natural resources is a top priority. Further, the salmon, birds, wolves, deer, and other aquatic and terrestrial wildlife living in and around the Tongass are under enough environmental pressures from climate change without the added pollution logging and road building would certainly bring to the rivers and streams that meander throughout this great forest.

Not only do the fish and wildlife that inhabit the Tongass depend on the health of the forest ecosystem, the earth[rsquo]s atmosphere depends on the health of the Tongass as it dutifully serves as a carbon sink, or a

natural reservoir of greenhouse gas ([ldquo]GHG[rdquo]) carbon emissions, and thus acts as

1 84 Fed. Reg. 55,522 (October 17, 2019).

2 Patagonia Action Works, https://www.patagonia.com/actionworks/about/

a buffer against climate change. Any actions that facilitate or expedite the removal of timber in the Tongass will hinder this essential function.

The DEIS fails to adequately account for how the repeal of the Roadless Rule would impact climate change, aquatic habitat, and recreational opportunities in the Tongass. For the reasons set forth in this comment, Alternatives 2-6 (the [ldquo]Action Alternatives[rdquo]) provided in the DEIS do not sufficiently protect Tongass natural resources, the indigenous people that rely on such resources, or, more broadly, the global climate. Due to these negative impacts, the Action Alternatives will directly injure Patagonia, its associates, and its customers. Further, Patagonia supports the full protection of the inventoried roadless areas ([ldquo]IRA[rdquo]) within the Chugach National Forest. Patagonia urges the USFS to adopt Alternative 1 No Action Alternative, as it is the least damaging alternative that will inflict relatively less harm on IRAs, the wildlife that inhabits them, and the Earth[rsquo]s climate.3

II. History of the Roadless Rule in the Tongass

The Tongass, also known by the USFS as the [ldquo]crown jewel[rdquo] of the National Forest System, has origins that date back to 1902 when President Theodore Roosevelt issued a proclamation creating the Alexander Archipelago Forest Reserve. 4 A separate Tongass National Forest was later created in 1907, and both areas were officially combined in 1908. An additional proclamation, signed in 1909, added more Southeast lands and islands, bringing the total area of the Tongass to its current 16.7 million acres.5

The Tongass is the nation[rsquo]s largest national forest, covering most of Southeast Alaska and offering unique chances to view eagles, bears, spawning salmon, and the breath-taking vistas of [ldquo]wild[rdquo] Alaska.6 The Tongass stretches 500 miles north-to-south and includes thousands of islands, countless streams, lush valleys, and sprawling forests of majestic, old-growth cedar, spruce, and hemlock trees.7 The Tongass is home to a significant portion of the old-growth temperate rainforest remaining in the world, as well as the largest tracts of old-growth forest left in the United States.8 In addition to towering species of Sitka spruce and western hemlock, the Tongass also houses vegetation that includes blueberries, ferns, and mosses.

3 To be clear, Patagonia would prefer to see an alternative that reevaluates the levels of logging approved in the 2016 Tongass Land and Resource Management Plan. Patagonia understands that such a proposal, however, is outside the scope of the analysis being conducted.

4 History of the Tongass National Forest, The Tongass National American Salmon Forest, http://www.americansalmonforest.org/the-history.html

5 Id.

6 Tongass National Forest, United States Department of Agriculture Forest Service, https://www.fs.usda.gov/tongass/

7 Conservation: Tongass National Forests, Audubon Alaska, https://ak.audubon.org/conservation/tongass-national-forest

8 About the Tongass, Southeast Alaska Conservation Council, https://www.seacc.org/tongass

In order to protect this rich natural treasure and other National Forest System lands like it from the environmental dangers of logging and dense road infrastructure, the USFS developed the Roadless Rule to preserve undeveloped stretches of forest and to [ldquo]provide lasting protection for [IRAs] within the National Forest System[rdquo].9

The Roadless Rule has undergone a lengthy and tumultuous journey since it[rsquo]s official introduction in 2001.10 President Clinton initially introduced the Rule in order to develop a comprehensive policy to protect the social and ecological values and characteristics of IRAs from road construction and reconstruction and certain logging activities in the National Forest System. Since the USFS first developed this plan to protect treasured national forests, the Rule has been faced with numerous challenges from both states and private interest groups. However, despite the persistent pushback, the Roadless Rule continues to prevail.11 Currently the Tongass is protected by the Roadless Rule as prescribed in the Alaska District Court[rsquo]s 2011 Judgment reinstating the Roadless Rule on the Tongass. The perseverance of the Roadless Rule and its supporters demonstrates the value that courts and the nation put on protecting national forests.

Recently, against the backdrop of the fluctuating Roadless Rule, members of both chambers of Congress have supported legislation that would codify the Roadless Rule through the Roadless Area Conservation Act.12 Representatives Diana DeGette of Colorado and Ruben Gallego of Arizona, as well as Senator Maria Cantwell of Washington, amongst others, have helped to push forward this legislative effort to protect national forest land in 39 states, which would include the Tongass. This proposed legislation would prevent the USFS from granting exemptions like the one requested by Alaska in this instance.

Additionally, Congress has already promulgated numerous bodies of law that make it abundantly clear that the Nation[rsquo]s Forest Systems require a variety of protections. The National Forest Management Act ([ldquo]NFMA[rdquo]), which requires the preparation of forest plans, provides that [ldquo]the [USFS], by virtue of its statutory authority for management of the National Forest System, research and cooperative programs, and its role as an agency in the Department of Agriculture, has both a responsibility and an opportunity to be a leader in assuring that the Nation maintains a natural resource conservation posture that will meet the requirements of our people in perpetuity.[rdquo]13

More specific to the Tongass, the Alaska National Interest Lands Conservation Act provides,

9 Supra note 1.

10 Timeline: The Roadless Rule, Earthjustice, https://earthjustice.org/features/timeline-of-the-roadless-rule

11 See Organized Vill. of Kake v. U.S. Dep[rsquo]t of Agric., 776 F.Supp.2d 960 (D. Ala. 2011) and Organized Village of Kake v. United States Dep[rsquo]t of Agric., 795 F.3d 956 (9th Cir. 2015).

12 DeGette files bill to permanently protect nearly 60 million acres of national forests across the U.S., Congresswoman Diana DeGette (May 2, 2019), https://degette.house.gov/media-center/press-releases/degette-files-bill-to-permanently-protect-nearly-60-million-acres-of

13 16 U.S.C. [sect] 1600 et seq.

it is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large arctic and subarctic wildlands and on free flowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.14

Additionally, the Tongass Timber Reform Act was promulgated in order to provide protection of riparian habitat within the forest.15

Overall, it is the duty of the USFS to maintain and enhance the quality of the environment of National Forest System lands.16 The Roadless Rule is an essential tool in ensuring the agency is able to protect and preserve these resources. Despite the challenges faced by the Roadless Rule since its introduction in 2001, it remains clear that these protections are necessary to preserve the abundant watersheds, rich outdoor recreation opportunities, and critical habitat that the Tongass generously provides. The Proposed Rule is yet another affront on Americans[rsquo] efforts to protect Alaska[rsquo]s natural landscape.17

III. Overview of NEPA

The National Environmental Policy Act ([ldquo]NEPA[rdquo]) was enacted in recognition of [ldquo]the profound impact of man[rsquo]s activity on the interrelations of all components of the natural environment, [and] ... the critical importance of restoring and maintaining environmental quality to the overall welfare ... of man ... .[rdquo]18 It [ldquo]prescribes the necessary process by which federal agencies must take a [lsquo]hard look[rsquo] at the environmental consequences of [their] proposed courses of action.[rdquo]19 NEPA is intended to focus the attention of the government and the public on the likely environmental consequences of a proposed agency action.20 It [ldquo]places upon an agency the

14 16 U.S.C. [sect] 3101 et seq. (emphasis supplied).

15 Pub. L. No. 101[ndash]626, 104 Stat 4426 (November 28, 1990).

16 Supra note 1.

17 See the Bureau of Land Management[rsquo]s Alaska[rsquo]s Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement dated September 12, 2019; see the U.S. Army Corps of Engineers[rsquo] Pebble Project Draft Environmental Impact Statement dated February 20, 2019; and see the Bureau of Land Management[rsquo]s National Petroleum Reserve in Alaska Integrated Activity Plan and Environmental Impact Statement dated November 22, 2019.

18 42 U.S.C. [sect] 4331.

19 Pennaco Energy, Inc. v. U.S. Dept. of Interior, 377 F.3d 1147 (10th Cir. 2004) (internal quotations omitted); see also Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989).

20 Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 109 S. Ct. 1851, 104 L. Ed. 2d 377 (1989).

obligation to consider every significant aspect of the environmental impact of the proposed action[rdquo] and [ldquo]ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision making process.[rdquo]21 The unequivocal intent of NEPA is to require agencies to consider and give effect to the environmental goals set forth in the Act, not just to file detailed impact studies which will fill governmental archives.22

The environmental impact statement ([ldquo]EIS[rdquo]) is the cornerstone of NEPA. Accordingly, in an EIS a federal agency must: (1) [ldquo]rigorously explore and objectively evaluate all reasonable alternatives[rdquo] to the proposed action23; (2) identify and disclose to the public all direct, indirect, and cumulative impacts of the proposed action and each reasonable alternative24; and (3) consider possible mitigation measures to reduce such impacts to the environment.25

Council on Environmental Quality ([ldquo]CEQ[rdquo]) regulations implementing NEPA make clear that in any EIS and record of decision, [ldquo][a] monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.[rdquo]26 CEQ regulations also state that [ldquo][m]itigation ([sect]1505.2(c)) and other conditions established in the [EIS] or during its review and committed as part of the decision shall be implemented by the lead agency or other appropriate consenting agency.[rdquo] To do so, CEQ explains the agency [ldquo]shall: (a) Include appropriate conditions in grants, permits or other approvals[.][rdquo]27

IV. The Purpose and Need Statement Does Not Comply with NEPA

Under NEPA, an EIS must [ldquo]specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.[rdquo]28 A suitable purpose and need statement is critically important to the adequacy of the DEIS, as it is the foundation on which the analysis stands. The statement will fail if it unreasonably narrows the agency[rsquo]s consideration of alternatives so that the outcome is preordained.29 Additionally, the USFS NEPA Handbook provides that the purpose and need statement must describe in detail why agency action

21 Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 103 S. Ct. 2246, 76 L. Ed. 2d 437 (1983) (citations omitted).

22 Ctr. for Biological Diversity v. Nat[rsquo]l Highway Traffic Safety Admin., 538 F.3d 1172 (9th Cir. 2008).

23 42 U.S.C. [sect] 4332; 40 C.F.R. [sect] 1502.14.

24 42 U.S.C. [sect] 4332; 40 C.F.R. [sect][sect] 1502.16, 1508.7 [ndash] 1508.8.

25 40 C.F.R. [sect] 1502.14(f).

26 40 C.F.R. [sect] 1505.2.

27 40 C.F.R. [sect] 1505.3.

28 40 C.F.R. [sect] 1502.13.

29 Alaska Survival v. Surface Transp. Bd., 705 F.3d 1073 (9th Cir Jan. 23, 2013); Protect Our Cmtys. Found. v. Jewell, 825 F.3d 571 (9th Cir. June 7, 2016).

is being proposed and shall reflect the difference between the existing condition and the desired condition.30

a. The Agency has Failed to Evaluate Whether There is a Need for the Proposed

Rule Given the Suspect Economic Value of Increased Roadbuilding

In addition to citing to the State of Alaska[rsquo]s petition for rulemaking, the DEIS purpose and need statement also asserts that the USDA and USFS believe the Roadless Rule prohibitions on timber harvest and road construction can be adjusted in a manner that [ldquo]meaningfully addresses local economic and development concerns[rdquo].31 However, because the timber industry makes up a small percentage of the Alaskan economy, there does not appear to be a legitimate need to further develop the Tongass for timber harvest. As Figure 3.2-3 in the DEIS demonstrates, the timber industry makes up a small fraction of the natural-resource based employment sector. 32 The industry this entire DEIS process seeks to assist does not appear to be viable over the long term.

Indeed, it appears that the logging currently occurring in Southeast Alaska is struggling to make a profit. The USFS has been attempting to organize timber sales on North Kuiu Island, which comes at the expense of taxpayer dollars.33 However, the USFS reportedly failed twice to solicit any bids on the sale in North Kuiu due to the high costs and far distances to market.34 Additionally, the USFS does not seem to be appropriately conducting the timber sales that do manage to receive bids. The USFS was recently prohibited from proceeding with the sale of old-growth spruce and hemlock on the Prince of Wales Island.35 The U.S. District Court for the District of Alaska determined that the USFS had failed to identify specific areas that would be logged, and the agency did [ldquo]not fully explain to the public how or where actual timber activities will affect localized habitats.[rdquo]

If the purpose and need of the agency action includes the [ldquo]economic situation found in and around the Tongass[rdquo], the economic analysis in the DEIS must necessarily include consideration of the economic impact of forest ecosystems services. Natural forest ecosystems provide a significant benefit to human health and livelihood and the USFS should assess the economic value of these ecosystem services as part of its assessment of [ldquo]local economic concerns[rdquo]. 36 As discussed further

30 Forest Service Handbook, National Environmental Policy Act Handbook 1909.15, Chapter 20-

Environmental Impact Statements and Related Documents at 10,
https://www.fs.fed.us/im/directives/dughtml/fsh1000.html

31 DEIS at 1-4.

32 DEIS at 3-27.

33 DEIS at 3-32.

34 Buck Lindekugel, Taxpayer dollars wasted trying to sell Tongass old growth - the North Kuiu Timber Sale, Southeast Alaska Conservation Council (June 13, 2018), https://www.seacc.org/taxpayer_dollars_wasted_trying_to_sell_tongass_old_growth

35 Se. Alaska Conservation Council v. United States Forest Serv., No. 1:19-cv-00006-SLG, 2019 U.S. Dist. LEXIS 161639, 49 ELR 20155, 2019 WL 4602809 (D. Alaska Sep. 23, 2019).

36 See Douglas J. Krieger, The Economic Value of Forest Ecosystem Services: A Review, The Wilderness Society (March 2001),

below, carbon storage is a vital ecosystem service the Tongass provides, in addition to water quality control, soil stabilization, and overall air quality benefits. [ldquo]Recognizing forest ecosystems as natural assets with economic and social value can help promote conservation and more responsible decision-making.[rdquo]37 The removal of these essential services will certainly come at a high cost to both the local economy and, more broadly, the nation[rsquo]s economy.38

Overall, it appears that the timber industry, particularly in the Tongass, is struggling to demonstrate its continuing viability and necessity. The USFS has placed a disproportionately strong emphasis on bolstering traditional resource extraction while discounting the economic benefits of recreation and tourism, which includes fish and wildlife values. Agencies such as the USFS must thoroughly review the factors relevant to the definition of purpose and should take into account the needs and goals of the parties involved.39 Here, the agency appears to assume the need for the project simply because the State of Alaska has submitted a petition. Blind acceptance of a project proponent[rsquo]s goals, without consideration of context, is contrary to NEPA requirements.

b. The [ldquo]Key Issue[rdquo] Framework is Too Narrow

Because project alternatives derive from the agency[rsquo]s stated purpose and need, the goal of a project necessarily dictates the range of reasonable alternatives.40 The scope of alternatives analysis depends on the underlying purpose and need specified by the agency, as the purpose and need statement is intended to narrow the range of alternatives.41 While agencies have discretion when defining the purpose and need of a project, their discretion is not unlimited and an agency cannot define its objectives in unreasonably narrow terms, such that the outcome is preordained. 42

The purpose and need of this DEIS asserts that the NEPA-required alternatives in the proposal are analyzed through the lens of three key issues: (1) conserve roadless area characteristics; (2) support local and regional socioeconomic well-being, Alaska Native culture, rural subsistence activities, and economic opportunity across multiple economic sectors; and (3) conserve terrestrial habitat, aquatic habitat, and biological diversity.43 While these issues include some helpful points of analysis, as a whole, this framework unreasonably narrows the scope of the entire DEIS analysis by failing to prioritize essential environmental considerations.

https://www.sierraforestlegacy.org/Resources/Conservation/FireForestEcology/ForestEconomics/EcosystemServices.pdf

37 Ecosystem Services, United States Department of Agriculture Forest Service, https://www.fs.fed.us/ecosystemservices/

38 David C. Holzman, Accounting for Nature[rsquo]s Benefits: The Dollar Value of Ecosystem Services, 120 ENVIRONMENTAL HEALTH PERSPECTIVES (April 2012), https://doi.org/10.1289/ehp.120-a152

39 Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 290 U.S. App. D.C. 371 (D.C. Cir. 1991).

40 City of Carmel-by-the-Sea v. United States DOT, 123 F.3d 1142 (9th Cir Nov. 13, 1995).

41 Supra note 30.

42 Supra note 40.

43 DEIS at 1-5.

The most glaring miscalculation of the [ldquo]key issue[rdquo] framework is its failure to prioritize climate change analysis. NEPA demands the United States [ldquo]fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.[rdquo]44 The United States Supreme Court has held that [ldquo]the thrust of [NEPA] is ... that environmental concerns be integrated into the very process of agency decision-making.[rdquo]45 Given the magnitude of global warming, these environmental concerns must include a robust analysis of climate change. Yet here, [ldquo]Climate and Carbon[rdquo] is considered outside of the key issue framework. Rather, it is relegated to an 8-page analysis under [ldquo]Other Important Issues[rdquo].46

Because the purpose and need statement frames the entire DEIS, the omission of climate change as a [ldquo]key issue[rdquo] to be addressed through the proposal places an artificial sideboard on the agency[rsquo]s NEPA analysis. Damage to the U.S. economy is growing with temperature change at an increasing rate.47 As discussed further below, increased removal of Tongass trees will destroy an essential tool to help the planet combat climate change. [ldquo]The signature effects of human-induced climate change[mdash]rising seas, increased damage from storm surge, more frequent bouts of extreme heat[mdash]all have specific, measurable impacts on our nation[rsquo]s current assets and ongoing economic activity.[rdquo]48 Scientists are discovering the ways that climate change is leading to higher health and energy costs. Additionally, the property and agriculture damage being caused by climate change will necessarily come at a high price.

The Fourth National Climate Assessment provides a detailed picture of how communities across the country will feel the economic burden of climate change impacts. The report finds that without substantial and sustained global mitigation and regional adaptation efforts, climate change is expected to cause growing losses to American infrastructure and property and impede the rate of economic growth over this century.49 Patagonia[rsquo]s businesses[mdash]including its apparel, food, and other businesses[mdash]require a thriving market of consumers. Patagonia will sustain substantial economic harm as a result of the climate change impacts shrinking GDP. Specifically, the report finds that industries depending on natural resources and favorable climate conditions are

44 42 U.S.C. [sect] 4331(b)(1).

45 Andrus v. Sierra Club, 442 U.S. 347, 99 S. Ct. 2335, 60 L. Ed. 2d 943 (1979).

46 DEIS at 3-121.

47 Ryan Nunn, Jimmy O[rsquo]Donnell, Jay Shambaugh, Lawrence H. Goulder, Charles D. Kolstad, and Xianling Long, Ten Facts about the Economics of Climate Change and Climate Policy, The Hamilton Project and

the Stanford Institute for Economic Policy Research (October 2019), https://www.brookings.edu/research/ten-facts-about-the-economics-of-climate-change-and-climate-policy/

48 Risky Business National Report: The Economic Risks of Climate Change in the United States, The Risky Business Project (June 2014), https://riskybusiness.org/report/national/

49 USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 186 pp. doi: 10.7930/NCA4.2018.RiB

vulnerable to the growing impacts of climate change.50 As a company focused primarily on providing clothing and gear for outdoor activities such as climbing, skiing, fishing, surfing, hiking, and biking, this will directly harm Patagonia[rsquo]s ability to conduct its business.

The purpose and need statement must be revised to include the impacts of climate change as a Key Issue moving forward.

V. The No Action Alternative is the Only Viable Alternative

The heart of an EIS is its exploration of possible alternatives to the action an agency wishes to pursue. In addition to specifying the underlying purpose and need to which the agency is responding, an agency preparing an EIS must rigorously explore and objectively evaluate all reasonable alternatives.51 Pursuant to NEPA, agencies must take responsibility for defining the objectives of an action and then provide legitimate consideration to alternatives that fall between the obvious extremes.52

Because the Roadless Rule protections are essential to ensure the long-term preservation of the Tongass and its resources, Alternative 1 should be adopted by the USFS. For the reasons set forth in this comment, the entirety of the 9.2 million acres of IRA should continue management pursuant to the Roadless Rule by prohibiting tree harvest, road construction, and road reconstruction. As stated in the final 2001 Roadless Rule Federal Register publication, road construction and timber harvest in IRAs have the greatest likelihood of altering and fragmenting IRA landscapes, which would result in immediate and long-term loss of roadless area values and characteristics.53

While Alternative 2 purports to increase the geographic scope of roadless area designation by including additional acres as Alaska Roadless Acres, this alternative would add logging opportunities to areas that have been [ldquo]substantially altered as identified by prior road construction or timber harvest[rdquo]. This extension to these areas, known as [ldquo]roaded roadless[rdquo] areas, would create a slippery slope of the expansion of logging and road construction.

Alternative 3 would take the logging opportunities in substantially-altered roadless areas provided in Alternative 2 one step further by extending the boundaries of those areas to [ldquo]logical end points of existing road and timber harvest systems[rdquo]. Again, these extensions are a nonviable alternative as they create an expansion of development.

Alternative 4 would add a substantial amount of land to be managed as a roadless management category called Roadless Priority. According to the Proposed Rule, Roadless Priority would be less restrictive than the Roadless Rule, which would include allowing for road construction for access to renewable energy and leasable minerals. The [ldquo]leasable minerals[rdquo] exception would include geothermal, oil, gas, and/or coal development. This classification, clearly

50 Id.

51 40 C.F.R. [sect][sect] 1502.13, 1502.14; Hammond v. Norton, 370 F. Supp. 2d 226 (DDC May 13, 2005).

52 40 C.F.R. [sect] 1502.14; N.M. ex rel. Richardson v. BLM, 565 F.3d 683 (10th Cir. 2009).

53 66 Fed. Reg. 3,243 (January 12, 2001).

motivated by the Trump administration[rsquo]s [ldquo]energy dominance[rdquo] agenda, is counterintuitive to the preservation of natural resources.54 Further, Alternative 4 would add a Timber Priority management category that would allow for timber harvest and road construction.

Because Alternatives 4 and 5 would convert a significant number of IRAs into Roadless Priority acres which would be less restrictive than Roadless Rule protections, these Alternatives are both nonviable options. And finally, Alternative 6 (the [ldquo]Preferred Alternative[rdquo]) would remove all 9.2 million acres of IRA in the Tongass from the roadless designation. This Preferred Alternative completely fails to offer reasonable protections to the pristine forest landscape.

Roadless areas are areas where high-quality intact habitat exists and ecosystems function with all their native species and components. Further, these areas serve as habitat for threatened, endangered, proposed, candidate, and sensitive species, all of which are dependent on large undisturbed areas of land for their survival. As such, Alternative 1 is the only alternative that would reasonably allow these necessary habitats to remain intact.

VI. Administrative Changes to the 2016 Forest Plan

In the Petition submitted by the State of Alaska to Secretary of Agriculture Sonny Perdue, the state requested that the USDA direct the USFS to commence a new amendment to the 2016 Tongass Land and Resource Management Plan (the [ldquo]2016 Forest Plan[rdquo]).55 However, instead of an amendment to the 2016 Forest Plan, the Proposed Rule would direct the Tongass Forest Supervisor to provide notice of an [ldquo]administrative change[rdquo] concerning lands that were deemed unsuitable in the 2016 Forest Plan solely due to the application of the Roadless Rule. As such, the Proposed Rule would change the designation of IRAs [ldquo]not suitable[rdquo] for harvest to [ldquo]suitable,[rdquo] through an [ldquo]administrative change[rdquo] rather than an amendment. The Proposed Rule Federal Register publication describes this exception as [ldquo]minor[rdquo]. However, this administrative change procedure side steps public involvement by making a substantial plan revision without proper review.

Administrative changes to these types of plans are permissible for matters and do not amount to a plan amendment or plan revision. 56 However, these changes can hardly be said to be minor, since they would open thousands of forest acres for logging. Forest plan revisions are necessary when conditions on a plan have changed significantly.57 As such, the USFS should not be permitted to make such an informal [ldquo]administrative change[rdquo] to the Forest Plan without more public involvement.

54 Executive Order 13783 of March 28, 2017, Promoting Energy Independence and Economic Growth, 82 Fed. Reg. 16093 (March 31, 2017).

55 State of Alaska Petition for USDA Rulemaking to Exempt the Tongass National Forest from Application

of the Roadless Rule and Other Actions (January 19, 2018), https://www.fs.usda.gov/nfs/11558/www/nepa/109834_FSPLT3_4406959.pdf

56 36 C.F.R. 219.13.

57 36 C.F.R. 219.7.

VII. The DEIS Fails to Adequately Consider the Impacts of Excluding the Tongass from the Roadless Rule

a. The DEIS Fails to Adequately Assess Climate Change Impacts

Despite climate change being the most significant environmental impact of our time, the DEIS fails to make any significant analysis of how exempting the Tongass from the Roadless Rule will contribute to climate change and, in turn, analyze how those additions to climate change will impact the United States, including impacts beyond Alaska. A proper analysis would consider how climate change is already pressuring the resources within the forest, which would be compounded by additional development. NEPA requires that the DEIS clearly present information and analyze the environmental consequences that form the scientific and analytic basis for consideration of reasonable alternatives.58 Further, given the important role the Tongass plays in managing climate change impacts, a proper analysis would make a more robust analysis of how additional loss of the forest would ultimately contribute to climate change impacts.

Although the DEIS includes analysis pertaining to the environmental consequences of each alternative on old-growth forest ecosystems and old-growth habitat conservation, the DEIS analysis of [ldquo]Climate and Carbon[rdquo] fails to fully analyze the environmental consequences of each alternative as it pertains to climate change contribution. The impact of GHG emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.59 For the reasons set forth below, the DEIS has failed to adequately consider the effects of climate change and, as such, an essential piece of the NEPA analysis is missing.

i. Climate Change Is the Most Significant Environmental Impact of Our Time

An EIS must contain a full and fair discussion of significant environmental impacts, and the impacts must be discussed in proportion to their significance. 60 Climate change is the most significant environmental impact of our time. Despite the significance of this global crisis, the DEIS only dedicates an 8-page section to [ldquo]Carbon and Climate[rdquo], an analysis that is completely disproportional to the gravity of the rapid

environmental changes.

Human influence on climate has been the dominant cause of observed warming since the mid-20th century, according to the Intergovernmental Panel on Climate Change ([ldquo]IPCC[rdquo]) Fifth Assessment Report.61 [ldquo]Human activities are estimated to have caused approximately 1.0[deg]C of global warming above pre-industrial levels, with a likely range of 0.8[deg]C to 1.2[deg]C. Global warming

58 40 C.F.R. [sect][sect] 1502.14, 1502.16.

59 Ctr. for Biological Diversity v. Nat[rsquo]l Highway Traffic Safety Admin., 538 F.3d 1172 (9th Cir. 2008).

60 40 C.F.R. [sect][sect] 1502.1 and 1502.2(b); 42 U.S.C. [sect][sect] 4332(C)(i) and (ii).

61 IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

is likely to reach 1.5[deg]C between 2030 and 2052 if it continues to increase at the current rate.[rdquo]62 According to the IPCC, [ldquo][w]arming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.[rdquo]63 According to the Fourth National Climate Assessment published by the U.S. Global Change Research Program, [ldquo]More frequent and intense extreme weather and climate-related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential benefits to communities.[rdquo] 64

Climate change is upon us. We can see it and experience it in the world around us on a daily basis. A cloud of smog above the Los Angeles sky line, rising sea levels, increased prices at the grocery store due to a struggling global agricultural supply, dying coral reefs, historic highs in forest fire rates in the western United States, super storms ripping across the globe. The global population can no longer afford to treat climate change like a potential future threat. Rather, we must recognize the harm that has already been done to our planet and combat future harms, which involve drastic and immediate action to protect the vital resources we have left.

Observations from around the world are showing the widespread effects of increasing GHG concentrations on Earth[rsquo]s climate. Years of scientific research, carefully collected data, and environmental observations have accumulated to resoundingly confirm that climate change is the most significant environmental impact of our time.

With its business headquarters located right along the California coast, Patagonia is particularly susceptible to feeling the profoundly negative effects of climate change.65 Climate change contributes to a shortening of California[rsquo]s rainy season, which also further extends wild fire season. 66 In 2016 alone, more than 67,000 wildfires burned over 5.5 million acres in the U.S., an area equivalent to the size of New Jersey. 67 [ldquo]If global warming continues on pace, the models

62 IPCC, 2018: Summary for Policymakers. In: Global warming of 1.5[deg]C. An IPCC Special Report on the impacts of global warming of 1.5[deg]C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable

development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. P[ouml]rtner, D. Roberts, J. Skea, P. R. Shukla, A. Pirani, W. Moufouma-Okia, C. P[eacute]an, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.

63 Supra note 61.

64 Supra note 49.

65 See the most recent fall 2019 fires, including the Kincade, Hillside, Getty, and Maria Fires, some of which occurred mere miles from Patagonia[rsquo]s headquarters: California Department of Forestry & Fire Protection, https://www.fire.ca.gov/incidents/2019/

66 Dana Nuccitelli, The many ways climate change worsens California wildfires, Yale Climate Change Connections (November 13, 2018), https://www.yaleclimateconnections.org/2018/11/the-many-ways-climate-change-worsens-california-wildfires/

67 Leah Burrows, From sea to rising sea: Climate change in America, Harvard John A. Paulson School of Engineering and Applied Sciences (September 13, 2017), https://www.seas.harvard.edu/content/from-sea-to-rising-sea-climate-change-in-america

predict that by 2050 the wildfire season in the western U.S. will be about three weeks longer, twice as smoky, and will burn more area.[rdquo]68 According to a recent analysis conducted by the Washington Post, the average temperature in Ventura County has increased by 4.7[deg]F since preindustrial times, making Ventura the fastest warming county in the Lower 48 states.69

In addition to the increased risk of drought and wildfires, coastal states like California will experience the effects of sea level rise, increased coastal flooding, and ultimately coastal erosion. Approximately 85% of California[rsquo]s population live and work in coastal counties, which includes Ventura, California.70 [ldquo]In the next several decades, warming produced by climate model simulations indicates that sea level rise could substantially exceed the rate experienced during modern human development along the California coast and estuaries.[rdquo]71 As such, the Ventura River Estuary located adjacent to Ventura poses an increasingly imminent threat to the entire community, including the Patagonia Works headquarters.

According to the National Ocean Service, sea level can rise by two different mechanisms with respect to climate change. [ldquo]First, as the oceans warm due to an increasing global temperature, seawater expands[mdash]taking up more space in the ocean basin and causing a rise in water level. The second mechanism is the melting of ice over land, which then adds water to the ocean.[rdquo] 72 Studies conducted by the U.S. Geological Survey ([ldquo]USGS[rdquo]) show that with sea level rise ranging from about 1.5 feet to 6.6 feet by 2100, bluff tops along nearly 300 miles of Southern California coasts could lose an average of 62 to 135 feet by 2100, and much more in some areas. 73 Patagonia[rsquo]s headquarters in Ventura is located less than half a mile from the coast, directly in harm[rsquo]s way.

Not only is Patagonia[rsquo]s brick and mortar home at risk due to climate change, the foundation of its business is too. For example, a recent study assessed the potential climate change impacts to recreational freshwater fishing across the coterminous U.S. The study found that higher air temperatures and, to a lesser extent, changes in streamflow, will alter fish habitat, resulting in a decline in more desirable recreational fish species and

a shift toward less desirable warm-water fisheries.74 A significant portion of Patagonia customers utilize Patagonia products for outdoor

68 Id.

69 Scott Wilson, Fires, floods and free parking: California[rsquo]s unending fight against climate change, The Washington Post (December 5, 2019), https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-california/

70 Climate Change Impacts in California, State of California Department of Justice Xavier Becerra Attorney General, https://oag.ca.gov/environment/impact

71 D.R. Cayan, P.D. Bromirski, K. Hayhoe et al., Climate change projections of sea level extremes along the California coast, 87 CLIMATIC CHANGE, at 57 (2008), https://doi.org/10.1007/s10584-007-9376-7

72 How is sea level rise related to climate change?, NOAA National Ocean Service, https://oceanservice.noaa.gov/facts/sealevelclimate.html

73 Sea Level Rise Could Double Erosion Rates of Southern California Coastal Cliffs, United States Geographical Survey (July 9, 2018), https://www.usgs.gov/news/sea-level-rise-could-double-erosion-rates-southern-california-coastal-cliffs

74 Rhodium Group LLC, 2014: American Climate Prospectus: Economic Risks in the United States, Prepared as input to the Risky Business Project Rhodium Group, New York, NY, 201 pp. http://www. impactlab.org/wp-content/uploads/2017/10/ AmericanClimateProspectus_v1.2.pdf citing D. Lane, R.

activities, including fishing in the Tongass. A decline in more desirable recreational fish species as a result of climate change will directly harm Patagonia through both its customer base and its organizational conservation mission. For more on fish and recreation impact, see Sections VII (b) and (c) below.

In addition to the broader national effects of climate change, disturbing observations of a warming climate are also experienced more locally in Southeast Alaska. As part of the Arctic, Alaska is on the front lines of climate change and is among the fastest warming regions on Earth. It is warming faster than any other state, and it faces a myriad of issues associated with a changing climate.75 As the climate continues to warm, average annual temperatures in Alaska are projected to increase an additional 2 to 4[deg]F by the middle of this century.76 Further, even though total annual precipitation and frequency of winter floods are likely to increase in Southeast Alaska, decreasing snowpack will decrease the amount of water available for spawning salmon in the summertime.77

As a coastal state, the impact climate change plays on ocean health is also an important consideration in assessing the health of the Tongass. Studies indicate that rapidly rising GHG concentrations are driving ocean systems toward conditions not seen for millions of years, with an associated risk of fundamental and irreversible ecological transformation.78 The oceans are the main store of carbon dioxide ([ldquo]CO2[rdquo]) and are estimated to have taken a large portion of anthropogenic-sourced CO2 from the atmosphere since the beginning of the industrial revolution, when humans began to burn massive amounts of fossil fuel, cut down swaths of CO2-consuming forests, and engage in a variety of other CO2-producing activities.79 As the ocean continues to shoulder the GHG burden, it comes at a grave cost: ocean warming. Some studies suggest that increases in sea

temperature and changing ocean currents may lead to a reduction in the uptake of CO2 by the ocean. This will necessarily mean that forests like the Tongass will have to shoulder the burden of absorbing more CO2, making the preservation of these resources even more vital to the preservation of the atmosphere.

Jones, D. Mills, C. Wobus, R.C. Ready, R.W. Buddemeier, and H. Hosterman, Climate change impacts on freshwater fish, coral reefs, and related ecosystem services in the United States, 15 CLIMATIC CHANGE (2014), doi:10.1007/s10584- 014-1107-2

75 Markon, C., S. Gray, M. Berman, L. Eerkes-Medrano, T. Hennessy, H. Huntington, J. Littell, M. McCammon, R. Thoman, and S. Trainor, 2018: Alaska. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 1185[ndash]1241. doi: 10.7930/NCA4.2018.CH26

76 Climate Impacts in Alaska, Environmental Protection Agency

https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-alaska_.html

77 Christopher J. Sergeant, Future Challenges for Salmon and the Freshwater Ecosystems of Southeast Alaska, National Park Service (June 8, 2018), https://www.nps.gov/articles/aps-17-1-6.htm

78 Ove Hoegh-Guldberg and John F. Bruno, The Impact of Climate Change on the World[rsquo]s Marine

Ecosystems, 328 SCIENCE, at 1523-1528 (June 18, 2010),
https://science.sciencemag.org/content/328/5985/1523

79 Philip C. Reid et al., Chapter 1 Impacts of the Oceans on Climate Change, 56 ADVANCES IN MARINE BIOLOGY, at 1-150 (2009), https://doi.org/10.1016/S0065-2881(09)56001-4

Ocean warming is accompanied by ocean acidification, which refers to a reduction in the pH of the ocean over an extended period caused primarily by the uptake of CO2 from the atmosphere, which causes a variety of chemical changes in seawater. 80 [ldquo]Ocean acidification is now happening at a faster rate than at any point in the last 66 million years, and possibly in the last 300 million years. And projections show that by the end of this century, ocean surface waters could be more than twice as acidic as they were at the end of last century if we do not reduce our carbon emissions.[rdquo]81

Given the extensive scientific data about the immediate and growing impacts of climate change, any EIS prepared under NEPA must carefully and thoroughly consider all aspects of climate change impacts. This should include both a rich discussion of how climate change is impacting the resources within the forest in addition to a discussion of how the proposed alternatives would contribute to climate change.

The DEIS fails in this regard, offering only an abbreviated analysis that fails to fully account for the harsh impact climate change has brought and will bring to the Tongass. In discussing the impact of the alternatives, the DEIS avoids any meaningful analysis by repeatedly belaboring that there are uncertainties regarding the scope of climate change and the effects it will impose on the forests in Southeast Alaska.82 However, this should not excuse the USFS from engaging in a more forthcoming global warming analysis.

Without a thorough and proper analysis of how climate change impacts the Tongass, and the IRAs in particular, the DEIS has failed to consider how climate change is likely to modify conditions of each alternative.

ii. Tongass Old Growth Is Essential to Combat Climate Change

In addition to failing to fully analyze how severely climate change impacts the Tongass, the DEIS also fails to adequately assess how the Action Alternatives, particularly the Preferred Alternative, will contribute to climate change themselves.

The Tongass is home to some of the oldest trees on earth, many dating back more than 800 years. Spruce, cedar, and western hemlock trees stretch more than 200 feet into the sky and reach nearly 12 feet in diameter at chest level. 83 One key characteristic of old-growth stands is that they include trees of multiple ages and sizes, from seedlings and saplings to pole-sized trees to trees

80 What is Ocean Acidification?, NOAA National Ocean Science,

https://oceanservice.noaa.gov/facts/acidification.html

81 CO2 and Ocean Acidification: Causes, Impacts, Solutions, Union of Concerned Scientists (January 30, 2019), https://www.ucsusa.org/resources/co2-and-ocean-acidification

82 See DEIS at 3-126 [ndash] 128.

83 Lindsay Seventko, Discover 5 of America[rsquo]s Old-Growth Forests, American Forests (June 16, 2016), https://www.americanforests.org/blog/discover-5-of-americas-old-growth-forests/

many centuries old. 84 These massive old-growth trees are an essential resource in a world being increasingly overcome by the massive influx in GHG emissions.

The Tongass acts as a buffer against climate change, absorbing according to some estimates around 8% of the nation[rsquo]s annual global warming pollution and storing an estimated 10-12 percent of all carbon in our national forests. The sequestered carbon is stored in live woody tissues and slowly decomposing organic matter in soil. Old-growth forests, therefore, serve as a global carbon sink.85 [ldquo]Old-growth forests are very effective at trapping climate-warming greenhouse gas like carbon dioxide from the atmosphere and storing[mdash]or [lsquo]sequestering[rsquo][mdash]it. The underlying soil absorbs some of that heat-trapping gas as well, making forests major carbon sinks and an increasingly big part of the discussion when we talk about how to stem the tide of global warming.[rdquo]86

Keeping these forest carbon sinks intact and undeveloped using policies like the Roadless Rule is a key part of any comprehensive plan to confront climate change. The Proposed Rule Federal Register publication itself identifies that the USFS manages the National Forest Service to [ldquo]maintain and enhance the quality of the environment to meet the Nation[rsquo]s current and future needs.[rdquo] The nation, and more broadly the world, currently relies on the carbon sink provided by the forest, and will rely on it even more in the future as oceans warm and temperatures rise. These natural resources are not limitless. Given the increasing pressure climate change is placing on forests, it is essential that the USFS to maintain protections of young-growth and especially old-growth, which includes the Roadless Rule.

Not only does the DEIS offer lackluster effort to account for how the Tongass protects against climate change, the [ldquo]Climate and Carbon[rdquo] analysis goes as far as providing misleading information, according to some scientists. In the cumulative effects of climate change and carbon sequestration, the DEIS states, [ldquo]Potential negative effects on the Tongass may be ameliorated and may be completely reversed with time, reducing or eliminating potential negative cumulative effects on carbon and climate. Carbon emitted during the initial implementation of the management actions (e.g., harvest) would have a temporary influence on atmospheric carbon concentrations, because carbon would be removed from the atmosphere over time following management as the forest regrows.[rdquo]87

However, Beverly Law, an Oregon State University professor cited in the DEIS, points out that some old-growth trees in the Tongass are more than a thousand years old, so it would take a

84 David Albert, John Schoen, Melanie Smith, and Nathan Walker, Old-Growth & Second-Growth Forest, Ecological Atlas of Southeast Alaska at 51, Alaska Audubon (2016), https://ak.audubon.org/conservation/ecological-atlas-southeast-alaska

85 Sebastiaan Luyssaert et al., Old-growth forests as global carbon sinks, 455 NATURE, at 213[ndash]215 (2008), doi:10.1038/nature07276

86 Why it[rsquo]s important to keep the wildest forests free of roads and logging, The Wilderness Society (November 12, 2019), https://www.wilderness.org/articles/blog/why-its-important-keep-wildest-forests-free-roads-and-logging

87 DEIS at 3-127.

very long time for the forest to regain such a huge amount of carbon.88 Although young growth will assist in mitigating the loss of older trees, this regrowth could take centuries, leaving the environment short on essential carbon sequestration forestation in a time where the planet is desperately trying to stay ahead of the curve to prevent climate damage. The earth cannot afford to wait centuries for the reemergence of young growth.

The USFS[rsquo]s failure to provide forthcoming information on the true impact the Action Alternatives would have on carbon emissions, changes in forest carbon stocks, carbon sequestration, and global climate change is a fatal flaw of the DEIS environmental analysis. A genuine substantive analysis of how the Action Alternatives will impact climate change is required under NEPA[rsquo]s obligation to consider every significant aspect of the environmental impact of the agency[rsquo]s proposed action.

iii. The Action Alternatives Will Contribute to Climate Change

Despite the importance of old growth as a vital carbon sink, due to devastating logging practices that utilized a technique of clear-cutting full forest areas, Tongass has lost at least half of its old growth forest since the 1950s, which are some of the more important areas for ecological integrity and wildlife.89 Not only will the removal of essential old-growth trees contribute to climate change by eliminating essential carbon sinks, the practice of logging itself will decrease the forest[rsquo]s ability to store carbon in addition to producing carbon emissions of its own.

According to NASA, 97% or more of actively publishing climate scientists agree that climate-warming trends over

the past century are extremely likely due to human activities.90 Science confirms that a dominant cause of climate change is GHG emissions produced by human activities, including CO2 and methane. Studies show that roughly half of the cumulative anthropogenic carbon dioxide emissions between 1750 and 2011 have occurred in the last 40 years.91 GHG from human activities are the most significant driver of observed climate change since the mid-20th century.92

When forests are cleared or burnt, stored carbon is released into the atmosphere, mainly as CO2. Global loss of tropical forests has contributed a significant amount of CO2 back into the

88 Adam Aton, Experts Dispute Trump Administration[rsquo]s Rationale for Alaska Logging, E&E News (October 22, 2019), https://www.scientificamerican.com/article/experts-dispute-trump-administrations-rationale-for-alaska-logging/

89 Conserving Old-Growth Ecosystems in the Tongass National Forest, Audubon Alaska, http://www.audubon.org/sites/default/files/documents/conserving_old-growth_ecosystems_in_the_tongass_national_forest.pdf

90 Scientific Consensus: Earth[rsquo]s Climate is Warming, NASA Global Climate Change, https://climate.nasa.gov/scientific-consensus/

91 Supra note 61.

92 IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.

atmosphere. Industrial logging results in a large loss of forest carbon storage, and a substantial overall increase in carbon emissions that can take decades to recapture with regrowth. Logging also destroys a forest ecosystem[rsquo]s ability to provide natural protections to forest inhabitants against extreme weather events. When forests are logged, the carbon that was stored in the trees and soil is released into the atmosphere. Further, removing trees eliminates portions of the forest canopy, which blocks the sun[rsquo]s rays during the day and retains heat at night. That disruption leads to more extreme temperature swings which, in turn, can be harmful to plants and animals.

The agency appears to cloak itself in the assertion that no [ldquo]additional[rdquo] road building or timber harvest will occur as a result of the Action Alternatives. But, the agency[rsquo]s efforts to remove Roadless Rule protections is ultimately an attempt to facilitate access to additional areas within the Tongass to remove trees. There would be no reason to proceed with any exemption but for the fact that new roads will reduce the costs associated with logging marginal areas and increase the rate of deforestation.93 At a bare minimum, the agency must evaluate the climatological impacts of the additional loss of trees attributable to these factors.

b. The DEIS Does Not Provide Sufficient Consideration of How the Alternatives

Would Impact Tongass Fish Populations and Their Habitats

As stated in the DEIS, the abundant aquatic system of the Tongass provides spawning and rearing habitats for

most fish produced in Southeast Alaska, and maintenance of the habitat and the associated high-quality water is a focal point of public, state, and federal natural resource agencies, as well as user groups.94 Along with its vast woods, the Tongass features miles of pristine creeks, rivers, and lakes, including important salmon-spawning streams. The forest also houses wetlands, alpine tundra, mountains, and glaciers that host an abundance of water features. The rich and abundant Tongass serves as a habitat to several important kinds of fish including five species of salmon [mdash]Chinook, coho, sockeye, pink, and chum[mdash] and several varieties of trout and steelhead.

Indeed, the Tongass is the nation[rsquo]s top salmon-producing forest. While all fish that inhabit the Tongass are important biologically and recreationally, the pacific salmon populations play an essential role in Alaska[rsquo]s marine ecosystem and are a valuable recreational resource as well.95 Salmon bring marine nutrients inland and provide an important food resource for a variety of animals which, in turn, increases the productivity of nearby plants and forests. Salmon also provide the forest with fertilizer, making them an important resource for tree growth. Further, fish that decay within streams release valuable nutrients which then fertilize the water that feeds the developing salmon. According to the Wild Salmon Center, in Southeastern Alaska, spawning salmon contribute up to 25% of the nitrogen in the foliage of trees, resulting in tree growth rates

93 Hermann Gucinski, Michael J. Furniss, Robert R. Ziemer, and Martha H. Brooks, Forest Roads, A Synthesis of Scientific Information, U.S. Department of Agriculture Forest Service, Gen. Tech. Rep. PNW-GTR-509, Portland, OR, Pacific Northwest Research Station (May 2001).

94 DEIS at 3-109.

95 Salmon Research in Alaska, NOAA Fisheries, https://www.fisheries.noaa.gov/alaska/science-data/salmon-research-alaska

nearly three-times higher than in areas without salmon spawning.96 Trees depend on salmon, and salmon depend on trees.97

Further, the quality of the water and of the fishing experiences to be found in the Tongass make it a destination for anglers from all over the world. Opportunities for both freshwater and saltwater shoreline fishing for salmon exist near most towns and cities. 98 Additionally, angling for Southeast Alaska[rsquo]s cutthroat trout, steelhead, king and coho salmon, and halibut are world-renowned. As discussed further below, the state of Alaska receives millions of dollars of tourism revenue annually from recreators seeking to fish these species.

However, many fish species found in the Tongass, salmon populations in particular, are dwindling across the globe. According to the National Park Service, the coming decades present new climate change challenges and it is unclear if salmon will be able to keep pace with them. 99 In Alaska specifically, Chinook salmon runs have been well below the long-term average.100 Pacific salmon face serious challenges from climate and landscape change. The largest and oldest Chinook salmon, known as [ldquo]kings[rdquo], are disappearing causing fishing operations across Southeast Alaska to dwindle.

The degradation of these fish populations is especially problematic for Southeast Alaskan tribes that rely on the preservation of the Tongass and Tongass resources. Alaskan Native communities are often the communities that suffer the most due to climate change impacts and logging policies that disrupt the ecosystems that tribes rely on. Not only do the salmon of the forest have cultural significance to these tribes, they also depend on the health of this ecosystem for food security. In addition to salmon and other fisheries, tribes are often dependent upon

additional forest resources like wildlife for hunting and berries for gathering, both of which would be negatively impacted by the Action Alternatives.

Climate change and ocean acidification has put all the state[rsquo]s fisheries at risk.101 The DEIS details numerous effects climate change may have on fish species throughout the Tongass, and even goes as far as to suggest that climate change may have a positive impact on Alaskan fish species, as elevated water temperatures may result in faster fish growth. 102 However, research

96 Guido Rahr, Why Protect Salmon, Wild Salmon Center, https://www.wildsalmoncenter.org/why-protect-salmon/

97 Anne Post, Why Fish Need Trees and Trees Need Fish, Alaska Department of Fish and Game (November 2008), http://www.adfg.alaska.gov/index.cfm?adfg=wildlifenews.view_article&articles_id=407

98 Southeastern Area, Alaska Department of Fish and Game,

https://www.adfg.alaska.gov/index.cfm?adfg=SportByAreaSoutheast.main

99 Supra note 77.

100 Low Runs of Chinook Salmon in Alaska, Alaska Department of Fish and Game (June 2019), https://www.adfg.alaska.gov/index.cfm?adfg=hottopics.lowchinookruns_info

101 John Dos Passos Coggin, New report highlights Alaska[rsquo]s last five years of dramatic climate change, NOAA Climate.gov (October 15, 2019), https://www.climate.gov/news-features/understanding-climate/new-report-highlights-alaska%E2%80%99s-last-five-years-dramatic-climate

102 DEIS at 3-118.

shows that this [ldquo]jumpstart[rdquo] in freshwater doesn[rsquo]t necessarily benefit salmon in the long run since the native fish then spend more time competing with hatchery fish in the ocean.103 As such, despite the DEIS[rsquo]s efforts to place a positive spin on climate change, in reality these environmental pressures are causing fisheries throughout Southeast Alaska to dwindle.

In addition to harm caused by climate change pressures, fisheries in the Tongass also face threats from road construction. Improper culvert placement at road-stream crossings can reduce or eliminate fish passage, and road crossings are a common migration barrier to fish.104 Additionally, road construction can block the migration routes that prevent fish from feeding, spawning, and accessing over-wintering areas. Stream crossings for roads create barriers and can reduce access to vital habitats. Human development and habitat degradation are causing wild salmon populations to decline.

Logging and road building in the Tongass have contributed to the problem by increasing soil erosion, decreasing streamside trees needed by fish, and blocking fish passages used by salmon to migrate to spawning locations. River and stream degradation that occurs as a result of timber production adversely affects many other ecosystem services, like erosion control, nutrient cycling, and water regulation.

Roads can facilitate the spread of harmful agents, prevent the movement of species, or be a source of

pollution.105 Roads also impact water quality through sediment pollution.106 Sediment from construction activities and erosion can find its way into watersheds, which can eventually cover spawning beds, suffocate eggs, clog gills, and overall make it difficult for fish to survive. Further, roads directly affect natural sediment and hydrologic regimes by altering streamflow, sediment loading, channel morphology, channel stability, substrate composition, stream temperatures, water quality, and riparian conditions in a watershed.107 In addition to road sediment, logging practices can also increase risks to fish resources. Because fish benefit from forest coverage and carbon emitted from natural forest debris, any increase in the removal of these resources is damaging to these aquatic ecosystems.108

Despite the sensitivity of these vital species and the clear dangers road building and logging would bring to their habitat, the DEIS provides that the overall risk to fish resources and watersheds amongst the alternatives is unlikely to be large or different from the current 2016 Forest

103 Timothy J. Cline, Jan Ohlberger, Daniel E. Schindler, Effects of warming climate and competition in the ocean for life-histories of Pacific salmon, 3 NATURE ECOLOGY & EVOLUTION, at 935-942 (May 27, 2019), DOI: 10.1038/s41559-019-0901-7

104 Supra note 93.

105 Kevin Boston, The Potential Effects of Forest Roads on the Environment and Mitigating their Impacts,

2 CURRENT FORESTRY REPORTS, at 215-222 (December 2016), https://link.springer.com/article/10.1007/s40725-016-0044-x

106 Id.

107 Supra note 93.

108 Deforestation starves fish, University of Cambridge (June 11, 2014), https://www.cam.ac.uk/research/news/deforestation-starves-fish

Plan[rsquo]s projected conditions. However, while none of the alternatives would change Forest Plan guidelines developed to protect fish and their habitat, the Action Alternatives would indeed provide expanded locational opportunities for road construction and logging. As explained in the DEIS section [ldquo]Transportation, Energy, Communications, and Infrastructure[rdquo], Alternatives 3-6 would be [ldquo]expected to result in more new road miles[rdquo] because additional logging opportunities may be provided through extending areas removed from roadless designation.109

Further, and even more problematic, under the Preferred Alternative, the DEIS identifies that roads and logging are likely to penetrate much farther into currently roadless areas than under Alternatives 1, 2, or 3, resulting in a greater degree of fragmentation.110 As such, because this information clearly indicates that the Action Alternatives would create additional threats to fish habitat, the DEIS insufficiently concludes that risk to fish resources and watersheds is unlikely to change from the current conditions. The USFS must provide a more robust analysis of the environmental effects of the Action Alternatives, which would almost certainly find that these Alternatives are non-options given the grave dangers they will pose to the dwindling natural fish populations.

c. The DEIS Understates the Impacts on Recreation

The Tongass is a rich expanse of nearly endless recreational opportunities. Recreators travel from far and wide to experience pristine watersheds, untouched forest landscapes, and unique wildlife. Fishing expeditions, scenic hikes, bird watching, and many more outdoor activities offer visitors and local residents alike not only recreational pursuits, but also provides physical, emotional, and even spiritual benefits. The benefits of these outdoor places diminish when landscapes are littered with logging infrastructure.

The visitor industry accounts for 60% of natural resource-based employment in Southeast Alaska.111 According to the University of Alaska Center for Economic Development, [ldquo][Iin-state consumer spending related to outdoor recreation trips amounts to nearly $3.2 billion annually. That spending creates about 29,000 direct jobs, and 38,100 total jobs through a multiplier effect (indirect and induced). About one job in ten in Alaska is tied to trip-related outdoor recreation spending.[rdquo]112 The profitability of the outdoor recreation industry stands in stark comparison to the timber industry. The USFS[rsquo]s move to expand logging in the Tongass follows decades of the federal government subsidizing timber sales in the national forest, often amounting to millions of dollars per year. The USFS should not jeopardize the preservation of hundreds of thousands of acres of Tongass forest that provide the foundation for the lucrative recreation industry at the expense of the failing timber industry.

109 DEIS at 3-144.

110 DEIS at 3-68.

111 DEIS at 3-27.

112 The University of Alaska Center for Economic Development, Economic Development in Alaska: Outdoor Recreation Impacts and Opportunities (March 2019), https://ua-ced.org/blog/2019/3/13/outdoor-recreation-in-alaska-impacts-and-opportunities

Visitors often use outfitters or guides to assist in their enjoyment of these great outdoors. For the most part, outfitters and guides ensure that recreational activities are conducted in a manner that protects environmental resources. Changes in land management have the potential to affect outfitter/guide operations that provide commercial recreation opportunities on the forest. As identified in the DEIS itself, [ldquo]By expanding the acres available for harvest, Alternatives 4 to 6 could add to these potential impacts [to outfitter/guide use] by increasing the number and geographic extent of the acres affected.[rdquo]113 Not only does the destruction of the natural appearance of the forest deplete the areas of viable recreational opportunity, it then necessarily forces outfitter/guides to condense their operations, creating a crowding effect that detracts from the entire recreational experience sought in the first place.

Because wildlife observation is an alluring recreational opportunity for visitors and locals, the Alternatives[rsquo] impact on wildlife is also of importance in this analysis. The destruction of trees through logging practices removes shelter from the elements, can directly destroy homes, and changes the overall landscape animals inhabit. Forest ecosystems foster high levels of biodiversity which creates complex food webs that wildlife all up and down the food chain depend on.

The DEIS states, [ldquo]Timber harvest in newly opened areas and associated road construction or reconstruction has the potential to decrease the value of these roadless areas to wildlife through increased habitat fragmentation and reduced landscape connectivity.[rdquo]114 However, it is likely this is more than a

potential possibility. When continuous stretches of forest are disrupted by logging, habitat is divided into smaller and more isolated fragments which forces wildlife into distorted, unnatural habitat formations. Studies show habitat fragmentation can reduce biodiversity significantly and impair key ecosystem functions by decreasing biomass and altering nutrient cycles.115 Fragmented populations can produce increased demographic fluctuation, inbreeding, loss of genetic variability, and local extinctions.116

This will be especially true in the Action Alternatives, which would allow logging and road construction in more expansive areas of the forest. While the Action Alternatives wouldn[rsquo]t necessarily lead to more acres logged under the current 2016 Forest Plan, their effects would be far more disruptive to the natural landscapes wildlife depends on. Species like the Sitka black-tailed deer, black and brown bears, American martens, and Alexander Archipelago wolves are essential not only for the biodiversity of the Tongass, but also for the recreation industry that relies on wild animals. The Tongass also has the potential for occurrence of numerous threatened and endangered species under the Endangered Species Act, including short-tailed albatross, humpback whale, fin whale, sperm whale, and Steller sea lion.117

113 DEIS at 3-50.

114 DEIS at 3-90.

115 Nick M. Haddad et al., Habitat fragmentation and its lasting impact on Earth[rsquo]s ecosystems, 1 SCIENCE ADVANCES (March 20, 2015), DOI: 10.1126/sciadv.1500052

116 Supra note 93.

117 DEIS Table 3.3b-1.

Roads can increase harassment, poaching, collisions with vehicles, and displacement of terrestrial vertebrates, which affect many large mammals.118 As such, not only will the removal of the Roadless Rule directly harm wildlife, it will also inadvertently further harm recreational pursuits as recreators have less opportunity to connect with nature through the observation of wildlife.

DEIS Figure 3.10-1 demonstrates the increase in primitive old-growth acres that will become suitable for harvest under the alternatives. Even if the total volumes expected to be harvested are the same under each alternative, it is the extended reach of areas that will be deemed suitable for harvest under the Action Alternatives that creates a direct threat to recreational pursuits. By providing more suitable acres for harvest in deeper and more primitive stretches of the forest, these Alternatives pose a grave danger to the sanctity of the landscape that is essential for recreational purposes. Visitors do not travel all the way to the Tongass to see patches of cleared land amongst the landscape. The DEIS states that [ldquo]Old-growth acres harvested in recreation places important for fishing and tourism would be expected to increase relative to Alternative 1.[rdquo]119 This result is unacceptable.

Further, the DEIS attempts to limit its analysis of environmental consequences of the alternatives on recreation and tourism by repeatedly asserting that actual logging locations and road development activities will vary depending on the timber sales carried out and, as such, it is difficult to evaluate the effects of the alternatives on particular groups of recreation resources.120 However, this is nothing more than a thinly veiled excuse to avoid disclosing the harmful effects of repealing the Roadless Rule. Regardless of where these additional timber sales are carried out, they will certainly devastate the natural landscape that currently exists. This will negatively impact

recreational use, as it destroys the sanctity recreators seek.

Protecting recreation areas is of particular importance to Patagonia given the industry that it serves. Without the preservation of wild spaces, both customers and employees will have limited opportunities to explore this ancient forest in its natural composition. This deprivation of recreation is a loss Patagonia cannot afford in a world that is increasingly scorched by the destructive force of climate change. Because the Action Alternatives will expand the spatial distribution of future logging activities which will necessarily degrade recreational opportunities, the No Action Alternative is the only viable option.

VIII. Mitigation - Tongass 77 Watersheds and The Nature Conservancy/Audubon Conservation Priority Areas

The Tongass 77 Watersheds ([ldquo]T77 Watersheds[rdquo]) were identified through a comprehensive process where numerous organizations including the Audubon Society, The Nature Conservancy ([ldquo]TNC[rdquo]) and Trout Unlimited, in consultation with federal and state biologists and various community and business stakeholder groups, identified the most important salmon producing

118 Supra note 93.

119 DEIS at 3-170.

120 Id.

watersheds that lacked watershed-scale protections.121 In addition to including valuable fish habitat, these areas include watersheds that capture other biological values to ensure the region will sustain a viable ecosystem. The conservation of these areas is essential to the ecological health of Southeast Alaska.

The 2016 Forest Plan prohibits old-growth timber harvest in T77 Watersheds and TNC/Audubon Conservation Priority Areas. However, as demonstrated in DEIS Table 3.3c-1, suitable young growth in these areas increases between the Action Alternatives.122 Given the environmental and ecological importance of these habitats, the USFS should add mitigation measures to protect these wild spaces and mitigate the adverse environmental impacts young growth harvesting would impose. Mitigation is an important mechanism agencies can use to minimize the potential adverse environmental impacts associated with their actions.123 Patagonia supports the continued protection of these essential conservation areas for the health and wellbeing of delicate fish populations.

IX. Conclusion

Patagonia strongly opposes the Action Alternatives set forth in the DEIS due to their fundamental failure to consider and analyze the realistic impact of removing IRAs on the Tongass environment. Particularly, the Action Alternatives are missing a robust and necessary analysis of climate change influence. Patagonia urges the USFS to select Alternative 1, the only alternative that would refrain from further harming the ecological health of the Tongass and thus, in turn, the environmental health of the United States through the preservation of the essential carbon sink. The Tongass should not be exempt from the Roadless Rule. Additionally, the USFS should undertake further environmental analysis as it pertains to the findings of the 2016 Forest Plan.

121 The Tongass 77: Protecting Southeast Alaska[rsquo]s Best Salmon Watersheds, The Tongass National Forest American Salmon Forest, http://www.americansalmonforest.org/the-tongass-77-factsheet.html

122 DEIS at 3-114.

123 40 C.F.R. [sect] 1502.16(h).

[Position]

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

December 16, 2019

Alaska Roadless Rule

USDA Forest Service

P.O. Box 21628

Juneau, Alaska 99802-1628

RE: Public Comments of Patagonia Works on the Department of Agriculture Forest Service Proposed Rule [ldquo]Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska[rdquo] and Draft Environmental Impact Statement Rulemaking for Alaska Roadless Areas

Dear Mr. Tu:

This firm represents Patagonia Works, a certified B-corporation incorporated in the State of California. Attached please find Patagonia Works[rsquo] comment on the Department of Agriculture Forest Service Proposed Rule [ldquo]Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska[rdquo] and Draft Environmental Impact Statement Rulemaking for Alaska Roadless Areas. If you have any questions about this comment, please contact me using the contact information provided on this letterhead.

Sincerely,

/s/ Kennon G. Meyer

KGM

Attachment

DEPARTMENT OF AGRICULTURE FOREST SERVICE PROPOSED RULE SPECIAL AREAS; ROADLESS AREA CONSERVATION; NATIONAL FOREST SYSTEM LANDS IN ALASKA AND DRAFT ENVIRONMENTAL IMPACT STATEMENT RULEMAKING FOR ALASKA ROADLESS AREAS

84 Federal Register 55,522

SUBMITTED ELECTRONICALLY
Ken Tu
Alaska Roadless Rule
USDA Forest Service
P.O. Box 21628
Juneau, Alaska 99802-1628

I. Introduction

Patagonia Works ([ldquo]Patagonia[rdquo]) appreciates the opportunity to provide comments on the United States Department of Agriculture ([ldquo]USDA[rdquo]) Forest Service[rsquo]s ([ldquo]USFS[rdquo]) Proposed Rule Special Areas; Roadless Area Conservation; National Forest System Lands in Alaska (the [ldquo]Proposed Rule[rdquo])1 and the October 2019 Draft Environmental Impact Statement for the Rulemaking for Alaska Roadless Areas ([ldquo]DEIS[rdquo]).

Patagonia is an outdoor-apparel company with a 40-year history of environmental activism. Protecting and preserving the environment is a core business tenet as reflected in the Company[rsquo]s mission statement: [ldquo]Patagonia is in business to save our home planet.[rdquo] In 2012, Patagonia became a California benefit corporation, enshrining its blended goals of business and conservation into its Articles of Incorporation. Patagonia believes deeply in the urgent shared responsibility to protect the environment. The future of Patagonia[rsquo]s business depends on the health of the wild places that its customers explore, which include the Tongass National Forest (the [ldquo]Tongass[rdquo]).

Patagonia has spent a significant amount of time and resources fighting to protect and preserve the sanctity of the Tongass. Patagonia has worked diligently to support conservation efforts throughout the years in an effort to protect the nation[rsquo]s largest national forest stretching across some of the most pristine landscapes in Southeast Alaska. Going back as early as the 1990s, Patagonia has provided grant funding totaling $197,000 to the Southeast Alaska Conservation Council and $185,500 to the Sitka Conservation Society, two groups that are dedicated to protecting the Tongass and the fish and wildlife that make the forest their home. These organizations also currently utilize Patagonia[rsquo]s Action Works platform, which connects individuals to organizations working on environmental issues in their community.2 Patagonia has also granted Audubon Alaska $60,000 and currently has similar grants pending with the Wilderness Society and Women[rsquo]s Earth & Climate Action Network.

Patagonia strongly opposes the exemption of the Tongass from the essential protection of the 2001 Roadless Area Conservation Rule ([ldquo]Roadless Rule[rdquo]). The Roadless Rule is essential for limiting harmful logging and road-building activity in National Forest Systems throughout the country. As climate change intensifies and the effects of global warming are seen more readily across the country, protecting the nation[rsquo]s most vulnerable and essential natural resources is a top priority. Further, the salmon, birds, wolves, deer, and other aquatic and terrestrial wildlife living in and around the Tongass are under enough environmental pressures from climate change without the added pollution logging and road building would certainly bring to the rivers and streams that meander throughout this great forest.

Not only do the fish and wildlife that inhabit the Tongass depend on the health of the forest ecosystem, the earth[rsquo]s atmosphere depends on the health of the Tongass as it dutifully serves as a carbon sink, or a

natural reservoir of greenhouse gas ([ldquo]GHG[rdquo]) carbon emissions, and thus acts as

1 84 Fed. Reg. 55,522 (October 17, 2019).

2 Patagonia Action Works, https://www.patagonia.com/actionworks/about/

a buffer against climate change. Any actions that facilitate or expedite the removal of timber in the Tongass will hinder this essential function.

The DEIS fails to adequately account for how the repeal of the Roadless Rule would impact climate change, aquatic habitat, and recreational opportunities in the Tongass. For the reasons set forth in this comment, Alternatives 2-6 (the [ldquo]Action Alternatives[rdquo]) provided in the DEIS do not sufficiently protect Tongass natural resources, the indigenous people that rely on such resources, or, more broadly, the global climate. Due to these negative impacts, the Action Alternatives will directly injure Patagonia, its associates, and its customers. Further, Patagonia supports the full protection of the inventoried roadless areas ([ldquo]IRA[rdquo]) within the Chugach National Forest. Patagonia urges the USFS to adopt Alternative 1 No Action Alternative, as it is the least damaging alternative that will inflict relatively less harm on IRAs, the wildlife that inhabits them, and the Earth[rsquo]s climate.3

II. History of the Roadless Rule in the Tongass

The Tongass, also known by the USFS as the [ldquo]crown jewel[rdquo] of the National Forest System, has origins that date back to 1902 when President Theodore Roosevelt issued a proclamation creating the Alexander Archipelago Forest Reserve. 4 A separate Tongass National Forest was later created in 1907, and both areas were officially combined in 1908. An additional proclamation, signed in 1909, added more Southeast lands and islands, bringing the total area of the Tongass to its current 16.7 million acres.5

The Tongass is the nation[rsquo]s largest national forest, covering most of Southeast Alaska and offering unique chances to view eagles, bears, spawning salmon, and the breath-taking vistas of [ldquo]wild[rdquo] Alaska.6 The Tongass stretches 500 miles north-to-south and includes thousands of islands, countless streams, lush valleys, and sprawling forests of majestic, old-growth cedar, spruce, and hemlock trees.7 The Tongass is home to a significant portion of the old-growth temperate rainforest remaining in the world, as well as the largest tracts of old-growth forest left in the United States.8 In addition to towering species of Sitka spruce and western hemlock, the Tongass also houses vegetation that includes blueberries, ferns, and mosses.

3 To be clear, Patagonia would prefer to see an alternative that reevaluates the levels of logging approved in the 2016 Tongass Land and Resource Management Plan. Patagonia understands that such a proposal, however, is outside the scope of the analysis being conducted.

4 History of the Tongass National Forest, The Tongass National American Salmon Forest, http://www.americansalmonforest.org/the-history.html

5 Id.

6 Tongass National Forest, United States Department of Agriculture Forest Service, https://www.fs.usda.gov/tongass/

7 Conservation: Tongass National Forests, Audubon Alaska, https://ak.audubon.org/conservation/tongass-national-forest

8 About the Tongass, Southeast Alaska Conservation Council, https://www.seacc.org/tongass

In order to protect this rich natural treasure and other National Forest System lands like it from the environmental dangers of logging and dense road infrastructure, the USFS developed the Roadless Rule to preserve undeveloped stretches of forest and to [ldquo]provide lasting protection for [IRAs] within the National Forest System[rdquo].9

The Roadless Rule has undergone a lengthy and tumultuous journey since it[rsquo]s official introduction in 2001.10 President Clinton initially introduced the Rule in order to develop a comprehensive policy to protect the social and ecological values and characteristics of IRAs from road construction and reconstruction and certain logging activities in the National Forest System. Since the USFS first developed this plan to protect treasured national forests, the Rule has been faced with numerous challenges from both states and private interest groups. However, despite the persistent pushback, the Roadless Rule continues to prevail.11 Currently the Tongass is protected by the Roadless Rule as prescribed in the Alaska District Court[rsquo]s 2011 Judgment reinstating the Roadless Rule on the Tongass. The perseverance of the Roadless Rule and its supporters demonstrates the value that courts and the nation put on protecting national forests.

Recently, against the backdrop of the fluctuating Roadless Rule, members of both chambers of Congress have supported legislation that would codify the Roadless Rule through the Roadless Area Conservation Act.12 Representatives Diana DeGette of Colorado and Ruben Gallego of Arizona, as well as Senator Maria Cantwell of Washington, amongst others, have helped to push forward this legislative effort to protect national forest land in 39 states, which would include the Tongass. This proposed legislation would prevent the USFS from granting exemptions like the one requested by Alaska in this instance.

Additionally, Congress has already promulgated numerous bodies of law that make it abundantly clear that the Nation[rsquo]s Forest Systems require a variety of protections. The National Forest Management Act ([ldquo]NFMA[rdquo]), which requires the preparation of forest plans, provides that [ldquo]the [USFS], by virtue of its statutory authority for management of the National Forest System, research and cooperative programs, and its role as an agency in the Department of Agriculture, has both a responsibility and an opportunity to be a leader in assuring that the Nation maintains a natural resource conservation posture that will meet the requirements of our people in perpetuity.[rdquo]13

More specific to the Tongass, the Alaska National Interest Lands Conservation Act provides,

9 Supra note 1.

10 Timeline: The Roadless Rule, Earthjustice, https://earthjustice.org/features/timeline-of-the-roadless-rule

11 See Organized Vill. of Kake v. U.S. Dep[rsquo]t of Agric., 776 F.Supp.2d 960 (D. Ala. 2011) and Organized Village of Kake v. United States Dep[rsquo]t of Agric., 795 F.3d 956 (9th Cir. 2015).

12 DeGette files bill to permanently protect nearly 60 million acres of national forests across the U.S., Congresswoman Diana DeGette (May 2, 2019), https://degette.house.gov/media-center/press-releases/degette-files-bill-to-permanently-protect-nearly-60-million-acres-of

13 16 U.S.C. [sect] 1600 et seq.

it is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large arctic and subarctic wildlands and on free flowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.14

Additionally, the Tongass Timber Reform Act was promulgated in order to provide protection of riparian habitat within the forest.15

Overall, it is the duty of the USFS to maintain and enhance the quality of the environment of National Forest System lands.16 The Roadless Rule is an essential tool in ensuring the agency is able to protect and preserve these resources. Despite the challenges faced by the Roadless Rule since its introduction in 2001, it remains clear that these protections are necessary to preserve the abundant watersheds, rich outdoor recreation opportunities, and critical habitat that the Tongass generously provides. The Proposed Rule is yet another affront on Americans[rsquo] efforts to protect Alaska[rsquo]s natural landscape.17

III. Overview of NEPA

The National Environmental Policy Act ([ldquo]NEPA[rdquo]) was enacted in recognition of [ldquo]the profound impact of man[rsquo]s activity on the interrelations of all components of the natural environment, [and] ... the critical importance of restoring and maintaining environmental quality to the overall welfare ... of man ... .[rdquo]18 It [ldquo]prescribes the necessary process by which federal agencies must take a [lsquo]hard look[rsquo] at the environmental consequences of [their] proposed courses of action.[rdquo]19 NEPA is intended to focus the attention of the government and the public on the likely environmental consequences of a proposed agency action.20 It [ldquo]places upon an agency the

14 16 U.S.C. [sect] 3101 et seq. (emphasis supplied).

15 Pub. L. No. 101[ndash]626, 104 Stat 4426 (November 28, 1990).

16 Supra note 1.

17 See the Bureau of Land Management[rsquo]s Alaska[rsquo]s Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement dated September 12, 2019; see the U.S. Army Corps of Engineers[rsquo] Pebble Project Draft Environmental Impact Statement dated February 20, 2019; and see the Bureau of Land Management[rsquo]s National Petroleum Reserve in Alaska Integrated Activity Plan and Environmental Impact Statement dated November 22, 2019.

18 42 U.S.C. [sect] 4331.

19 Pennaco Energy, Inc. v. U.S. Dept. of Interior, 377 F.3d 1147 (10th Cir. 2004) (internal quotations omitted); see also Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989).

20 Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 109 S. Ct. 1851, 104 L. Ed. 2d 377 (1989).

obligation to consider every significant aspect of the environmental impact of the proposed action[rdquo] and [ldquo]ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision making process.[rdquo]21 The unequivocal intent of NEPA is to require agencies to consider and give effect to the environmental goals set forth in the Act, not just to file detailed impact studies which will fill governmental archives.22

The environmental impact statement ([ldquo]EIS[rdquo]) is the cornerstone of NEPA. Accordingly, in an EIS a federal agency must: (1) [ldquo]rigorously explore and objectively evaluate all reasonable alternatives[rdquo] to the proposed action23; (2) identify and disclose to the public all direct, indirect, and cumulative impacts of the proposed action and each reasonable alternative24; and (3) consider possible mitigation measures to reduce such impacts to the environment.25

Council on Environmental Quality ([ldquo]CEQ[rdquo]) regulations implementing NEPA make clear that in any EIS and record of decision, [ldquo][a] monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.[rdquo]26 CEQ regulations also state that [ldquo][m]itigation ([sect]1505.2(c)) and other conditions established in the [EIS] or during its review and committed as part of the decision shall be implemented by the lead agency or other appropriate consenting agency.[rdquo] To do so, CEQ explains the agency [ldquo]shall: (a) Include appropriate conditions in grants, permits or other approvals[.][rdquo]27

IV. The Purpose and Need Statement Does Not Comply with NEPA

Under NEPA, an EIS must [ldquo]specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.[rdquo]28 A suitable purpose and need statement is critically important to the adequacy of the DEIS, as it is the foundation on which the analysis stands. The statement will fail if it unreasonably narrows the agency[rsquo]s consideration of alternatives so that the outcome is preordained.29 Additionally, the USFS NEPA Handbook provides that the purpose and need statement must describe in detail why agency action

21 Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 103 S. Ct. 2246, 76 L. Ed. 2d 437 (1983) (citations omitted).

22 Ctr. for Biological Diversity v. Nat[rsquo]l Highway Traffic Safety Admin., 538 F.3d 1172 (9th Cir. 2008).

23 42 U.S.C. [sect] 4332; 40 C.F.R. [sect] 1502.14.

24 42 U.S.C. [sect] 4332; 40 C.F.R. [sect][sect] 1502.16, 1508.7 [ndash] 1508.8.

25 40 C.F.R. [sect] 1502.14(f).

26 40 C.F.R. [sect] 1505.2.

27 40 C.F.R. [sect] 1505.3.

28 40 C.F.R. [sect] 1502.13.

29 Alaska Survival v. Surface Transp. Bd., 705 F.3d 1073 (9th Cir Jan. 23, 2013); Protect Our Cmtys. Found. v. Jewell, 825 F.3d 571 (9th Cir. June 7, 2016).

is being proposed and shall reflect the difference between the existing condition and the desired condition.30

a. The Agency has Failed to Evaluate Whether There is a Need for the Proposed

Rule Given the Suspect Economic Value of Increased Roadbuilding

In addition to citing to the State of Alaska[rsquo]s petition for rulemaking, the DEIS purpose and need statement also asserts that the USDA and USFS believe the Roadless Rule prohibitions on timber harvest and road construction can be adjusted in a manner that [ldquo]meaningfully addresses local economic and development concerns[rdquo].31 However, because the timber industry makes up a small percentage of the Alaskan economy, there does not appear to be a legitimate need to further develop the Tongass for timber harvest. As Figure 3.2-3 in the DEIS demonstrates, the timber industry makes up a small fraction of the natural-resource based employment sector. 32 The industry this entire DEIS process seeks to assist does not appear to be viable over the long term.

Indeed, it appears that the logging currently occurring in Southeast Alaska is struggling to make a profit. The USFS has been attempting to organize timber sales on North Kuiu Island, which comes at the expense of taxpayer dollars.33 However, the USFS reportedly failed twice to solicit any bids on the sale in North Kuiu due to the high costs and far distances to market.34 Additionally, the USFS does not seem to be appropriately conducting the timber sales that do manage to receive bids. The USFS was recently prohibited from proceeding with the sale of old-growth spruce and hemlock on the Prince of Wales Island.35 The U.S. District Court for the District of Alaska determined that the USFS had failed to identify specific areas that would be logged, and the agency did [ldquo]not fully explain to the public how or where actual timber activities will affect localized habitats.[rdquo]

If the purpose and need of the agency action includes the [ldquo]economic situation found in and around the Tongass[rdquo], the economic analysis in the DEIS must necessarily include consideration of the economic impact of forest ecosystems services. Natural forest ecosystems provide a significant benefit to human health and livelihood and the USFS should assess the economic value of these ecosystem services as part of its assessment of [ldquo]local economic concerns[rdquo]. 36 As discussed further

30 Forest Service Handbook, National Environmental Policy Act Handbook 1909.15, Chapter 20-

Environmental Impact Statements and Related Documents at 10,
https://www.fs.fed.us/im/directives/dughtml/fsh1000.html

31 DEIS at 1-4.

32 DEIS at 3-27.

33 DEIS at 3-32.

34 Buck Lindekugel, Taxpayer dollars wasted trying to sell Tongass old growth - the North Kuiu Timber Sale, Southeast Alaska Conservation Council (June 13, 2018), https://www.seacc.org/taxpayer_dollars_wasted_trying_to_sell_tongass_old_growth

35 Se. Alaska Conservation Council v. United States Forest Serv., No. 1:19-cv-00006-SLG, 2019 U.S. Dist. LEXIS 161639, 49 ELR 20155, 2019 WL 4602809 (D. Alaska Sep. 23, 2019).

36 See Douglas J. Krieger, The Economic Value of Forest Ecosystem Services: A Review, The Wilderness Society (March 2001),

below, carbon storage is a vital ecosystem service the Tongass provides, in addition to water quality control, soil stabilization, and overall air quality benefits. [ldquo]Recognizing forest ecosystems as natural assets with economic and social value can help promote conservation and more responsible decision-making.[rdquo]37 The removal of these essential services will certainly come at a high cost to both the local economy and, more broadly, the nation[rsquo]s economy.38

Overall, it appears that the timber industry, particularly in the Tongass, is struggling to demonstrate its continuing viability and necessity. The USFS has placed a disproportionately strong emphasis on bolstering traditional resource extraction while discounting the economic benefits of recreation and tourism, which includes fish and wildlife values. Agencies such as the USFS must thoroughly review the factors relevant to the definition of purpose and should take into account the needs and goals of the parties involved.39 Here, the agency appears to assume the need for the project simply because the State of Alaska has submitted a petition. Blind acceptance of a project proponent[rsquo]s goals, without consideration of context, is contrary to NEPA requirements.

b. The [ldquo]Key Issue[rdquo] Framework is Too Narrow

Because project alternatives derive from the agency[rsquo]s stated purpose and need, the goal of a project necessarily dictates the range of reasonable alternatives.40 The scope of alternatives analysis depends on the underlying purpose and need specified by the agency, as the purpose and need statement is intended to narrow the range of alternatives.41 While agencies have discretion when defining the purpose and need of a project, their discretion is not unlimited and an agency cannot define its objectives in unreasonably narrow terms, such that the outcome is preordained. 42

The purpose and need of this DEIS asserts that the NEPA-required alternatives in the proposal are analyzed through the lens of three key issues: (1) conserve roadless area characteristics; (2) support local and regional socioeconomic well-being, Alaska Native culture, rural subsistence activities, and economic opportunity across multiple economic sectors; and (3) conserve terrestrial habitat, aquatic habitat, and biological diversity.43 While these issues include some helpful points of analysis, as a whole, this framework unreasonably narrows the scope of the entire DEIS analysis by failing to prioritize essential environmental considerations.

https://www.sierraforestlegacy.org/Resources/Conservation/FireForestEcology/ForestEconomics/EcosystemServices.pdf

37 Ecosystem Services, United States Department of Agriculture Forest Service, https://www.fs.fed.us/ecosystemservices/

38 David C. Holzman, Accounting for Nature[rsquo]s Benefits: The Dollar Value of Ecosystem Services, 120 ENVIRONMENTAL HEALTH PERSPECTIVES (April 2012), https://doi.org/10.1289/ehp.120-a152

39 Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 290 U.S. App. D.C. 371 (D.C. Cir. 1991).

40 City of Carmel-by-the-Sea v. United States DOT, 123 F.3d 1142 (9th Cir Nov. 13, 1995).

41 Supra note 30.

42 Supra note 40.

43 DEIS at 1-5.

The most glaring miscalculation of the [ldquo]key issue[rdquo] framework is its failure to prioritize climate change analysis. NEPA demands the United States [ldquo]fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.[rdquo]44 The United States Supreme Court has held that [ldquo]the thrust of [NEPA] is ... that environmental concerns be integrated into the very process of agency decision-making.[rdquo]45 Given the magnitude of global warming, these environmental concerns must include a robust analysis of climate change. Yet here, [ldquo]Climate and Carbon[rdquo] is considered outside of the key issue framework. Rather, it is relegated to an 8-page analysis under [ldquo]Other Important Issues[rdquo].46

Because the purpose and need statement frames the entire DEIS, the omission of climate change as a [ldquo]key issue[rdquo] to be addressed through the proposal places an artificial sideboard on the agency[rsquo]s NEPA analysis. Damage to the U.S. economy is growing with temperature change at an increasing rate.47 As discussed further below, increased removal of Tongass trees will destroy an essential tool to help the planet combat climate change. [ldquo]The signature effects of human-induced climate change[mdash]rising seas, increased damage from storm surge, more frequent bouts of extreme heat[mdash]all have specific, measurable impacts on our nation[rsquo]s current assets and ongoing economic activity.[rdquo]48 Scientists are discovering the ways that climate change is leading to higher health and energy costs. Additionally, the property and agriculture damage being caused by climate change will necessarily come at a high price.

The Fourth National Climate Assessment provides a detailed picture of how communities across the country will feel the economic burden of climate change impacts. The report finds that without substantial and sustained global mitigation and regional adaptation efforts, climate change is expected to cause growing losses to American infrastructure and property and impede the rate of economic growth over this century.49 Patagonia[rsquo]s businesses[mdash]including its apparel, food, and other businesses[mdash]require a thriving market of consumers. Patagonia will sustain substantial economic harm as a result of the climate change impacts shrinking GDP. Specifically, the report finds that industries depending on natural resources and favorable climate conditions are

44 42 U.S.C. [sect] 4331(b)(1).

45 Andrus v. Sierra Club, 442 U.S. 347, 99 S. Ct. 2335, 60 L. Ed. 2d 943 (1979).

46 DEIS at 3-121.

47 Ryan Nunn, Jimmy O[rsquo]Donnell, Jay Shambaugh, Lawrence H. Goulder, Charles D. Kolstad, and Xianling Long, Ten Facts about the Economics of Climate Change and Climate Policy, The Hamilton Project and

the Stanford Institute for Economic Policy Research (October 2019), https://www.brookings.edu/research/ten-facts-about-the-economics-of-climate-change-and-climate-policy/

48 Risky Business National Report: The Economic Risks of Climate Change in the United States, The Risky Business Project (June 2014), https://riskybusiness.org/report/national/

49 USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 186 pp. doi: 10.7930/NCA4.2018.RiB

vulnerable to the growing impacts of climate change.50 As a company focused primarily on providing clothing and gear for outdoor activities such as climbing, skiing, fishing, surfing, hiking, and biking, this will directly harm Patagonia[rsquo]s ability to conduct its business.

The purpose and need statement must be revised to include the impacts of climate change as a Key Issue moving forward.

V. The No Action Alternative is the Only Viable Alternative

The heart of an EIS is its exploration of possible alternatives to the action an agency wishes to pursue. In addition to specifying the underlying purpose and need to which the agency is responding, an agency preparing an EIS must rigorously explore and objectively evaluate all reasonable alternatives.51 Pursuant to NEPA, agencies must take responsibility for defining the objectives of an action and then provide legitimate consideration to alternatives that fall between the obvious extremes.52

Because the Roadless Rule protections are essential to ensure the long-term preservation of the Tongass and its resources, Alternative 1 should be adopted by the USFS. For the reasons set forth in this comment, the entirety of the 9.2 million acres of IRA should continue management pursuant to the Roadless Rule by prohibiting tree harvest, road construction, and road reconstruction. As stated in the final 2001 Roadless Rule Federal Register publication, road construction and timber harvest in IRAs have the greatest likelihood of altering and fragmenting IRA landscapes, which would result in immediate and long-term loss of roadless area values and characteristics.53

While Alternative 2 purports to increase the geographic scope of roadless area designation by including additional acres as Alaska Roadless Acres, this alternative would add logging opportunities to areas that have been [ldquo]substantially altered as identified by prior road construction or timber harvest[rdquo]. This extension to these areas, known as [ldquo]roaded roadless[rdquo] areas, would create a slippery slope of the expansion of logging and road construction.

Alternative 3 would take the logging opportunities in substantially-altered roadless areas provided in Alternative 2 one step further by extending the boundaries of those areas to [ldquo]logical end points of existing road and timber harvest systems[rdquo]. Again, these extensions are a nonviable alternative as they create an expansion of development.

Alternative 4 would add a substantial amount of land to be managed as a roadless management category called Roadless Priority. According to the Proposed Rule, Roadless Priority would be less restrictive than the Roadless Rule, which would include allowing for road construction for access to renewable energy and leasable minerals. The [ldquo]leasable minerals[rdquo] exception would include geothermal, oil, gas, and/or coal development. This classification, clearly

50 Id.

51 40 C.F.R. [sect][sect] 1502.13, 1502.14; Hammond v. Norton, 370 F. Supp. 2d 226 (DDC May 13, 2005).

52 40 C.F.R. [sect] 1502.14; N.M. ex rel. Richardson v. BLM, 565 F.3d 683 (10th Cir. 2009).

53 66 Fed. Reg. 3,243 (January 12, 2001).

motivated by the Trump administration[rsquo]s [ldquo]energy dominance[rdquo] agenda, is counterintuitive to the preservation of natural resources.54 Further, Alternative 4 would add a Timber Priority management category that would allow for timber harvest and road construction.

Because Alternatives 4 and 5 would convert a significant number of IRAs into Roadless Priority acres which would be less restrictive than Roadless Rule protections, these Alternatives are both nonviable options. And finally, Alternative 6 (the [ldquo]Preferred Alternative[rdquo]) would remove all 9.2 million acres of IRA in the Tongass from the roadless designation. This Preferred Alternative completely fails to offer reasonable protections to the pristine forest landscape.

Roadless areas are areas where high-quality intact habitat exists and ecosystems function with all their native species and components. Further, these areas serve as habitat for threatened, endangered, proposed, candidate, and sensitive species, all of which are dependent on large undisturbed areas of land for their survival. As such, Alternative 1 is the only alternative that would reasonably allow these necessary habitats to remain intact.

VI. Administrative Changes to the 2016 Forest Plan

In the Petition submitted by the State of Alaska to Secretary of Agriculture Sonny Perdue, the state requested that the USDA direct the USFS to commence a new amendment to the 2016 Tongass Land and Resource Management Plan (the [ldquo]2016 Forest Plan[rdquo]).55 However, instead of an amendment to the 2016 Forest Plan, the Proposed Rule would direct the Tongass Forest Supervisor to provide notice of an [ldquo]administrative change[rdquo] concerning lands that were deemed unsuitable in the 2016 Forest Plan solely due to the application of the Roadless Rule. As such, the Proposed Rule would change the designation of IRAs [ldquo]not suitable[rdquo] for harvest to [ldquo]suitable,[rdquo] through an [ldquo]administrative change[rdquo] rather than an amendment. The Proposed Rule Federal Register publication describes this exception as [ldquo]minor[rdquo]. However, this administrative change procedure side steps public involvement by making a substantial plan revision without proper review.

Administrative changes to these types of plans are permissible for matters and do not amount to a plan amendment or plan revision. 56 However, these changes can hardly be said to be minor, since they would open thousands of forest acres for logging. Forest plan revisions are necessary when conditions on a plan have changed significantly.57 As such, the USFS should not be permitted to make such an informal [ldquo]administrative change[rdquo] to the Forest Plan without more public involvement.

54 Executive Order 13783 of March 28, 2017, Promoting Energy Independence and Economic Growth, 82 Fed. Reg. 16093 (March 31, 2017).

55 State of Alaska Petition for USDA Rulemaking to Exempt the Tongass National Forest from Application

of the Roadless Rule and Other Actions (January 19, 2018), https://www.fs.usda.gov/nfs/11558/www/nepa/109834_FSPLT3_4406959.pdf

56 36 C.F.R. 219.13.

57 36 C.F.R. 219.7.

VII. The DEIS Fails to Adequately Consider the Impacts of Excluding the Tongass from the Roadless Rule

a. The DEIS Fails to Adequately Assess Climate Change Impacts

Despite climate change being the most significant environmental impact of our time, the DEIS fails to make any significant analysis of how exempting the Tongass from the Roadless Rule will contribute to climate change and, in turn, analyze how those additions to climate change will impact the United States, including impacts beyond Alaska. A proper analysis would consider how climate change is already pressuring the resources within the forest, which would be compounded by additional development. NEPA requires that the DEIS clearly present information and analyze the environmental consequences that form the scientific and analytic basis for consideration of reasonable alternatives.58 Further, given the important role the Tongass plays in managing climate change impacts, a proper analysis would make a more robust analysis of how additional loss of the forest would ultimately contribute to climate change impacts.

Although the DEIS includes analysis pertaining to the environmental consequences of each alternative on old-growth forest ecosystems and old-growth habitat conservation, the DEIS analysis of [ldquo]Climate and Carbon[rdquo] fails to fully analyze the environmental consequences of each alternative as it pertains to climate change contribution. The impact of GHG emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.59 For the reasons set forth below, the DEIS has failed to adequately consider the effects of climate change and, as such, an essential piece of the NEPA analysis is missing.

i. Climate Change Is the Most Significant Environmental Impact of Our Time

An EIS must contain a full and fair discussion of significant environmental impacts, and the impacts must be discussed in proportion to their significance. 60 Climate change is the most significant environmental impact of our time. Despite the significance of this global crisis, the DEIS only dedicates an 8-page section to [ldquo]Carbon and Climate[rdquo], an analysis that is completely disproportional to the gravity of the rapid

environmental changes.

Human influence on climate has been the dominant cause of observed warming since the mid-20th century, according to the Intergovernmental Panel on Climate Change ([ldquo]IPCC[rdquo]) Fifth Assessment Report.61 [ldquo]Human activities are estimated to have caused approximately 1.0[deg]C of global warming above pre-industrial levels, with a likely range of 0.8[deg]C to 1.2[deg]C. Global warming

58 40 C.F.R. [sect][sect] 1502.14, 1502.16.

59 Ctr. for Biological Diversity v. Nat[rsquo]l Highway Traffic Safety Admin., 538 F.3d 1172 (9th Cir. 2008).

60 40 C.F.R. [sect][sect] 1502.1 and 1502.2(b); 42 U.S.C. [sect][sect] 4332(C)(i) and (ii).

61 IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

is likely to reach 1.5[deg]C between 2030 and 2052 if it continues to increase at the current rate.[rdquo]62 According to the IPCC, [ldquo][w]arming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen.[rdquo]63 According to the Fourth National Climate Assessment published by the U.S. Global Change Research Program, [ldquo]More frequent and intense extreme weather and climate-related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential benefits to communities.[rdquo] 64

Climate change is upon us. We can see it and experience it in the world around us on a daily basis. A cloud of smog above the Los Angeles sky line, rising sea levels, increased prices at the grocery store due to a struggling global agricultural supply, dying coral reefs, historic highs in forest fire rates in the western United States, super storms ripping across the globe. The global population can no longer afford to treat climate change like a potential future threat. Rather, we must recognize the harm that has already been done to our planet and combat future harms, which involve drastic and immediate action to protect the vital resources we have left.

Observations from around the world are showing the widespread effects of increasing GHG concentrations on Earth[rsquo]s climate. Years of scientific research, carefully collected data, and environmental observations have accumulated to resoundingly confirm that climate change is the most significant environmental impact of our time.

With its business headquarters located right along the California coast, Patagonia is particularly susceptible to feeling the profoundly negative effects of climate change.65 Climate change contributes to a shortening of California[rsquo]s rainy season, which also further extends wild fire season. 66 In 2016 alone, more than 67,000 wildfires burned over 5.5 million acres in the U.S., an area equivalent to the size of New Jersey. 67 [ldquo]If global warming continues on pace, the models

62 IPCC, 2018: Summary for Policymakers. In: Global warming of 1.5[deg]C. An IPCC Special Report on the impacts of global warming of 1.5[deg]C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable

development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. P[ouml]rtner, D. Roberts, J. Skea, P. R. Shukla, A. Pirani, W. Moufouma-Okia, C. P[eacute]an, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.

63 Supra note 61.

64 Supra note 49.

65 See the most recent fall 2019 fires, including the Kincade, Hillside, Getty, and Maria Fires, some of which occurred mere miles from Patagonia[rsquo]s headquarters: California Department of Forestry & Fire Protection, https://www.fire.ca.gov/incidents/2019/

66 Dana Nuccitelli, The many ways climate change worsens California wildfires, Yale Climate Change Connections (November 13, 2018), https://www.yaleclimateconnections.org/2018/11/the-many-ways-climate-change-worsens-california-wildfires/

67 Leah Burrows, From sea to rising sea: Climate change in America, Harvard John A. Paulson School of Engineering and Applied Sciences (September 13, 2017), https://www.seas.harvard.edu/content/from-sea-to-rising-sea-climate-change-in-america

predict that by 2050 the wildfire season in the western U.S. will be about three weeks longer, twice as smoky, and will burn more area.[rdquo]68 According to a recent analysis conducted by the Washington Post, the average temperature in Ventura County has increased by 4.7[deg]F since preindustrial times, making Ventura the fastest warming county in the Lower 48 states.69

In addition to the increased risk of drought and wildfires, coastal states like California will experience the effects of sea level rise, increased coastal flooding, and ultimately coastal erosion. Approximately 85% of California[rsquo]s population live and work in coastal counties, which includes Ventura, California.70 [ldquo]In the next several decades, warming produced by climate model simulations indicates that sea level rise could substantially exceed the rate experienced during modern human development along the California coast and estuaries.[rdquo]71 As such, the Ventura River Estuary located adjacent to Ventura poses an increasingly imminent threat to the entire community, including the Patagonia Works headquarters.

According to the National Ocean Service, sea level can rise by two different mechanisms with respect to climate change. [ldquo]First, as the oceans warm due to an increasing global temperature, seawater expands[mdash]taking up more space in the ocean basin and causing a rise in water level. The second mechanism is the melting of ice over land, which then adds water to the ocean.[rdquo] 72 Studies conducted by the U.S. Geological Survey ([ldquo]USGS[rdquo]) show that with sea level rise ranging from about 1.5 feet to 6.6 feet by 2100, bluff tops along nearly 300 miles of Southern California coasts could lose an average of 62 to 135 feet by 2100, and much more in some areas. 73 Patagonia[rsquo]s headquarters in Ventura is located less than half a mile from the coast, directly in harm[rsquo]s way.

Not only is Patagonia[rsquo]s brick and mortar home at risk due to climate change, the foundation of its business is too. For example, a recent study assessed the potential climate change impacts to recreational freshwater fishing across the coterminous U.S. The study found that higher air temperatures and, to a lesser extent, changes in streamflow, will alter fish habitat, resulting in a decline in more desirable recreational fish species and

a shift toward less desirable warm-water fisheries.74 A significant portion of Patagonia customers utilize Patagonia products for outdoor

68 Id.

69 Scott Wilson, Fires, floods and free parking: California[rsquo]s unending fight against climate change, The Washington Post (December 5, 2019), https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-california/

70 Climate Change Impacts in California, State of California Department of Justice Xavier Becerra Attorney General, https://oag.ca.gov/environment/impact

71 D.R. Cayan, P.D. Bromirski, K. Hayhoe et al., Climate change projections of sea level extremes along the California coast, 87 CLIMATIC CHANGE, at 57 (2008), https://doi.org/10.1007/s10584-007-9376-7

72 How is sea level rise related to climate change?, NOAA National Ocean Service, https://oceanservice.noaa.gov/facts/sealevelclimate.html

73 Sea Level Rise Could Double Erosion Rates of Southern California Coastal Cliffs, United States Geographical Survey (July 9, 2018), https://www.usgs.gov/news/sea-level-rise-could-double-erosion-rates-southern-california-coastal-cliffs

74 Rhodium Group LLC, 2014: American Climate Prospectus: Economic Risks in the United States, Prepared as input to the Risky Business Project Rhodium Group, New York, NY, 201 pp. http://www. impactlab.org/wp-content/uploads/2017/10/ AmericanClimateProspectus_v1.2.pdf citing D. Lane, R.

activities, including fishing in the Tongass. A decline in more desirable recreational fish species as a result of climate change will directly harm Patagonia through both its customer base and its organizational conservation mission. For more on fish and recreation impact, see Sections VII (b) and (c) below.

In addition to the broader national effects of climate change, disturbing observations of a warming climate are also experienced more locally in Southeast Alaska. As part of the Arctic, Alaska is on the front lines of climate change and is among the fastest warming regions on Earth. It is warming faster than any other state, and it faces a myriad of issues associated with a changing climate.75 As the climate continues to warm, average annual temperatures in Alaska are projected to increase an additional 2 to 4[deg]F by the middle of this century.76 Further, even though total annual precipitation and frequency of winter floods are likely to increase in Southeast Alaska, decreasing snowpack will decrease the amount of water available for spawning salmon in the summertime.77

As a coastal state, the impact climate change plays on ocean health is also an important consideration in assessing the health of the Tongass. Studies indicate that rapidly rising GHG concentrations are driving ocean systems toward conditions not seen for millions of years, with an associated risk of fundamental and irreversible ecological transformation.78 The oceans are the main store of carbon dioxide ([ldquo]CO2[rdquo]) and are estimated to have taken a large portion of anthropogenic-sourced CO2 from the atmosphere since the beginning of the industrial revolution, when humans began to burn massive amounts of fossil fuel, cut down swaths of CO2-consuming forests, and engage in a variety of other CO2-producing activities.79 As the ocean continues to shoulder the GHG burden, it comes at a grave cost: ocean warming. Some studies suggest that increases in sea

temperature and changing ocean currents may lead to a reduction in the uptake of CO2 by the ocean. This will necessarily mean that forests like the Tongass will have to shoulder the burden of absorbing more CO2, making the preservation of these resources even more vital to the preservation of the atmosphere.

Jones, D. Mills, C. Wobus, R.C. Ready, R.W. Buddemeier, and H. Hosterman, Climate change impacts on freshwater fish, coral reefs, and related ecosystem services in the United States, 15 CLIMATIC CHANGE (2014), doi:10.1007/s10584- 014-1107-2

75 Markon, C., S. Gray, M. Berman, L. Eerkes-Medrano, T. Hennessy, H. Huntington, J. Littell, M. McCammon, R. Thoman, and S. Trainor, 2018: Alaska. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 1185[ndash]1241. doi: 10.7930/NCA4.2018.CH26

76 Climate Impacts in Alaska, Environmental Protection Agency

https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-alaska_.html

77 Christopher J. Sergeant, Future Challenges for Salmon and the Freshwater Ecosystems of Southeast Alaska, National Park Service (June 8, 2018), https://www.nps.gov/articles/aps-17-1-6.htm

78 Ove Hoegh-Guldberg and John F. Bruno, The Impact of Climate Change on the World[rsquo]s Marine

Ecosystems, 328 SCIENCE, at 1523-1528 (June 18, 2010),
https://science.sciencemag.org/content/328/5985/1523

79 Philip C. Reid et al., Chapter 1 Impacts of the Oceans on Climate Change, 56 ADVANCES IN MARINE BIOLOGY, at 1-150 (2009), https://doi.org/10.1016/S0065-2881(09)56001-4

Ocean warming is accompanied by ocean acidification, which refers to a reduction in the pH of the ocean over an extended period caused primarily by the uptake of CO2 from the atmosphere, which causes a variety of chemical changes in seawater. 80 [ldquo]Ocean acidification is now happening at a faster rate than at any point in the last 66 million years, and possibly in the last 300 million years. And projections show that by the end of this century, ocean surface waters could be more than twice as acidic as they were at the end of last century if we do not reduce our carbon emissions.[rdquo]81

Given the extensive scientific data about the immediate and growing impacts of climate change, any EIS prepared under NEPA must carefully and thoroughly consider all aspects of climate change impacts. This should include both a rich discussion of how climate change is impacting the resources within the forest in addition to a discussion of how the proposed alternatives would contribute to climate change.

The DEIS fails in this regard, offering only an abbreviated analysis that fails to fully account for the harsh impact climate change has brought and will bring to the Tongass. In discussing the impact of the alternatives, the DEIS avoids any meaningful analysis by repeatedly belaboring that there are uncertainties regarding the scope of climate change and the effects it will impose on the forests in Southeast Alaska.82 However, this should not excuse the USFS from engaging in a more forthcoming global warming analysis.

Without a thorough and proper analysis of how climate change impacts the Tongass, and the IRAs in particular, the DEIS has failed to consider how climate change is likely to modify conditions of each alternative.

ii. Tongass Old Growth Is Essential to Combat Climate Change

In addition to failing to fully analyze how severely climate change impacts the Tongass, the DEIS also fails to adequately assess how the Action Alternatives, particularly the Preferred Alternative, will contribute to climate change themselves.

The Tongass is home to some of the oldest trees on earth, many dating back more than 800 years. Spruce, cedar, and western hemlock trees stretch more than 200 feet into the sky and reach nearly 12 feet in diameter at chest level. 83 One key characteristic of old-growth stands is that they include trees of multiple ages and sizes, from seedlings and saplings to pole-sized trees to trees

80 What is Ocean Acidification?, NOAA National Ocean Science,

https://oceanservice.noaa.gov/facts/acidification.html

81 CO2 and Ocean Acidification: Causes, Impacts, Solutions, Union of Concerned Scientists (January 30, 2019), https://www.ucsusa.org/resources/co2-and-ocean-acidification

82 See DEIS at 3-126 [ndash] 128.

83 Lindsay Seventko, Discover 5 of America[rsquo]s Old-Growth Forests, American Forests (June 16, 2016), https://www.americanforests.org/blog/discover-5-of-americas-old-growth-forests/

many centuries old. 84 These massive old-growth trees are an essential resource in a world being increasingly overcome by the massive influx in GHG emissions.

The Tongass acts as a buffer against climate change, absorbing according to some estimates around 8% of the nation[rsquo]s annual global warming pollution and storing an estimated 10-12 percent of all carbon in our national forests. The sequestered carbon is stored in live woody tissues and slowly decomposing organic matter in soil. Old-growth forests, therefore, serve as a global carbon sink.85 [ldquo]Old-growth forests are very effective at trapping climate-warming greenhouse gas like carbon dioxide from the atmosphere and storing[mdash]or [lsquo]sequestering[rsquo][mdash]it. The underlying soil absorbs some of that heat-trapping gas as well, making forests major carbon sinks and an increasingly big part of the discussion when we talk about how to stem the tide of global warming.[rdquo]86

Keeping these forest carbon sinks intact and undeveloped using policies like the Roadless Rule is a key part of any comprehensive plan to confront climate change. The Proposed Rule Federal Register publication itself identifies that the USFS manages the National Forest Service to [ldquo]maintain and enhance the quality of the environment to meet the Nation[rsquo]s current and future needs.[rdquo] The nation, and more broadly the world, currently relies on the carbon sink provided by the forest, and will rely on it even more in the future as oceans warm and temperatures rise. These natural resources are not limitless. Given the increasing pressure climate change is placing on forests, it is essential that the USFS to maintain protections of young-growth and especially old-growth, which includes the Roadless Rule.

Not only does the DEIS offer lackluster effort to account for how the Tongass protects against climate change, the [ldquo]Climate and Carbon[rdquo] analysis goes as far as providing misleading information, according to some scientists. In the cumulative effects of climate change and carbon sequestration, the DEIS states, [ldquo]Potential negative effects on the Tongass may be ameliorated and may be completely reversed with time, reducing or eliminating potential negative cumulative effects on carbon and climate. Carbon emitted during the initial implementation of the management actions (e.g., harvest) would have a temporary influence on atmospheric carbon concentrations, because carbon would be removed from the atmosphere over time following management as the forest regrows.[rdquo]87

However, Beverly Law, an Oregon State University professor cited in the DEIS, points out that some old-growth trees in the Tongass are more than a thousand years old, so it would take a

84 David Albert, John Schoen, Melanie Smith, and Nathan Walker, Old-Growth & Second-Growth Forest, Ecological Atlas of Southeast Alaska at 51, Alaska Audubon (2016), https://ak.audubon.org/conservation/ecological-atlas-southeast-alaska

85 Sebastiaan Luyssaert et al., Old-growth forests as global carbon sinks, 455 NATURE, at 213[ndash]215 (2008), doi:10.1038/nature07276

86 Why it[rsquo]s important to keep the wildest forests free of roads and logging, The Wilderness Society (November 12, 2019), https://www.wilderness.org/articles/blog/why-its-important-keep-wildest-forests-free-roads-and-logging

87 DEIS at 3-127.

very long time for the forest to regain such a huge amount of carbon.88 Although young growth will assist in mitigating the loss of older trees, this regrowth could take centuries, leaving the environment short on essential carbon sequestration forestation in a time where the planet is desperately trying to stay ahead of the curve to prevent climate damage. The earth cannot afford to wait centuries for the reemergence of young growth.

The USFS[rsquo]s failure to provide forthcoming information on the true impact the Action Alternatives would have on carbon emissions, changes in forest carbon stocks, carbon sequestration, and global climate change is a fatal flaw of the DEIS environmental analysis. A genuine substantive analysis of how the Action Alternatives will impact climate change is required under NEPA[rsquo]s obligation to consider every significant aspect of the environmental impact of the agency[rsquo]s proposed action.

iii. The Action Alternatives Will Contribute to Climate Change

Despite the importance of old growth as a vital carbon sink, due to devastating logging practices that utilized a technique of clear-cutting full forest areas, Tongass has lost at least half of its old growth forest since the 1950s, which are some of the more important areas for ecological integrity and wildlife.89 Not only will the removal of essential old-growth trees contribute to climate change by eliminating essential carbon sinks, the practice of logging itself will decrease the forest[rsquo]s ability to store carbon in addition to producing carbon emissions of its own.

According to NASA, 97% or more of actively publishing climate scientists agree that climate-warming trends over

the past century are extremely likely due to human activities.90 Science confirms that a dominant cause of climate change is GHG emissions produced by human activities, including CO2 and methane. Studies show that roughly half of the cumulative anthropogenic carbon dioxide emissions between 1750 and 2011 have occurred in the last 40 years.91 GHG from human activities are the most significant driver of observed climate change since the mid-20th century.92

When forests are cleared or burnt, stored carbon is released into the atmosphere, mainly as CO2. Global loss of tropical forests has contributed a significant amount of CO2 back into the

88 Adam Aton, Experts Dispute Trump Administration[rsquo]s Rationale for Alaska Logging, E&E News (October 22, 2019), https://www.scientificamerican.com/article/experts-dispute-trump-administrations-rationale-for-alaska-logging/

89 Conserving Old-Growth Ecosystems in the Tongass National Forest, Audubon Alaska, http://www.audubon.org/sites/default/files/documents/conserving_old-growth_ecosystems_in_the_tongass_national_forest.pdf

90 Scientific Consensus: Earth[rsquo]s Climate is Warming, NASA Global Climate Change, https://climate.nasa.gov/scientific-consensus/

91 Supra note 61.

92 IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.

atmosphere. Industrial logging results in a large loss of forest carbon storage, and a substantial overall increase in carbon emissions that can take decades to recapture with regrowth. Logging also destroys a forest ecosystem[rsquo]s ability to provide natural protections to forest inhabitants against extreme weather events. When forests are logged, the carbon that was stored in the trees and soil is released into the atmosphere. Further, removing trees eliminates portions of the forest canopy, which blocks the sun[rsquo]s rays during the day and retains heat at night. That disruption leads to more extreme temperature swings which, in turn, can be harmful to plants and animals.

The agency appears to cloak itself in the assertion that no [ldquo]additional[rdquo] road building or timber harvest will occur as a result of the Action Alternatives. But, the agency[rsquo]s efforts to remove Roadless Rule protections is ultimately an attempt to facilitate access to additional areas within the Tongass to remove trees. There would be no reason to proceed with any exemption but for the fact that new roads will reduce the costs associated with logging marginal areas and increase the rate of deforestation.93 At a bare minimum, the agency must evaluate the climatological impacts of the additional loss of trees attributable to these factors.

b. The DEIS Does Not Provide Sufficient Consideration of How the Alternatives

Would Impact Tongass Fish Populations and Their Habitats

As stated in the DEIS, the abundant aquatic system of the Tongass provides spawning and rearing habitats for

most fish produced in Southeast Alaska, and maintenance of the habitat and the associated high-quality water is a focal point of public, state, and federal natural resource agencies, as well as user groups.94 Along with its vast woods, the Tongass features miles of pristine creeks, rivers, and lakes, including important salmon-spawning streams. The forest also houses wetlands, alpine tundra, mountains, and glaciers that host an abundance of water features. The rich and abundant Tongass serves as a habitat to several important kinds of fish including five species of salmon [mdash]Chinook, coho, sockeye, pink, and chum[mdash] and several varieties of trout and steelhead.

Indeed, the Tongass is the nation[rsquo]s top salmon-producing forest. While all fish that inhabit the Tongass are important biologically and recreationally, the pacific salmon populations play an essential role in Alaska[rsquo]s marine ecosystem and are a valuable recreational resource as well.95 Salmon bring marine nutrients inland and provide an important food resource for a variety of animals which, in turn, increases the productivity of nearby plants and forests. Salmon also provide the forest with fertilizer, making them an important resource for tree growth. Further, fish that decay within streams release valuable nutrients which then fertilize the water that feeds the developing salmon. According to the Wild Salmon Center, in Southeastern Alaska, spawning salmon contribute up to 25% of the nitrogen in the foliage of trees, resulting in tree growth rates

93 Hermann Gucinski, Michael J. Furniss, Robert R. Ziemer, and Martha H. Brooks, Forest Roads, A Synthesis of Scientific Information, U.S. Department of Agriculture Forest Service, Gen. Tech. Rep. PNW-GTR-509, Portland, OR, Pacific Northwest Research Station (May 2001).

94 DEIS at 3-109.

95 Salmon Research in Alaska, NOAA Fisheries, https://www.fisheries.noaa.gov/alaska/science-data/salmon-research-alaska

nearly three-times higher than in areas without salmon spawning.96 Trees depend on salmon, and salmon depend on trees.97

Further, the quality of the water and of the fishing experiences to be found in the Tongass make it a destination for anglers from all over the world. Opportunities for both freshwater and saltwater shoreline fishing for salmon exist near most towns and cities. 98 Additionally, angling for Southeast Alaska[rsquo]s cutthroat trout, steelhead, king and coho salmon, and halibut are world-renowned. As discussed further below, the state of Alaska receives millions of dollars of tourism revenue annually from recreators seeking to fish these species.

However, many fish species found in the Tongass, salmon populations in particular, are dwindling across the globe. According to the National Park Service, the coming decades present new climate change challenges and it is unclear if salmon will be able to keep pace with them. 99 In Alaska specifically, Chinook salmon runs have been well below the long-term average.100 Pacific salmon face serious challenges from climate and landscape change. The largest and oldest Chinook salmon, known as [ldquo]kings[rdquo], are disappearing causing fishing operations across Southeast Alaska to dwindle.

The degradation of these fish populations is especially problematic for Southeast Alaskan tribes that rely on the preservation of the Tongass and Tongass resources. Alaskan Native communities are often the communities that suffer the most due to climate change impacts and logging policies that disrupt the ecosystems that tribes rely on. Not only do the salmon of the forest have cultural significance to these tribes, they also depend on the health of this ecosystem for food security. In addition to salmon and other fisheries, tribes are often dependent upon

additional forest resources like wildlife for hunting and berries for gathering, both of which would be negatively impacted by the Action Alternatives.

Climate change and ocean acidification has put all the state[rsquo]s fisheries at risk.101 The DEIS details numerous effects climate change may have on fish species throughout the Tongass, and even goes as far as to suggest that climate change may have a positive impact on Alaskan fish species, as elevated water temperatures may result in faster fish growth. 102 However, research

96 Guido Rahr, Why Protect Salmon, Wild Salmon Center, https://www.wildsalmoncenter.org/why-protect-salmon/

97 Anne Post, Why Fish Need Trees and Trees Need Fish, Alaska Department of Fish and Game (November 2008), http://www.adfg.alaska.gov/index.cfm?adfg=wildlifenews.view_article&articles_id=407

98 Southeastern Area, Alaska Department of Fish and Game,

https://www.adfg.alaska.gov/index.cfm?adfg=SportByAreaSoutheast.main

99 Supra note 77.

100 Low Runs of Chinook Salmon in Alaska, Alaska Department of Fish and Game (June 2019), https://www.adfg.alaska.gov/index.cfm?adfg=hottopics.lowchinookruns_info

101 John Dos Passos Coggin, New report highlights Alaska[rsquo]s last five years of dramatic climate change, NOAA Climate.gov (October 15, 2019), https://www.climate.gov/news-features/understanding-climate/new-report-highlights-alaska%E2%80%99s-last-five-years-dramatic-climate

102 DEIS at 3-118.

shows that this [ldquo]jumpstart[rdquo] in freshwater doesn[rsquo]t necessarily benefit salmon in the long run since the native fish then spend more time competing with hatchery fish in the ocean.103 As such, despite the DEIS[rsquo]s efforts to place a positive spin on climate change, in reality these environmental pressures are causing fisheries throughout Southeast Alaska to dwindle.

In addition to harm caused by climate change pressures, fisheries in the Tongass also face threats from road construction. Improper culvert placement at road-stream crossings can reduce or eliminate fish passage, and road crossings are a common migration barrier to fish.104 Additionally, road construction can block the migration routes that prevent fish from feeding, spawning, and accessing over-wintering areas. Stream crossings for roads create barriers and can reduce access to vital habitats. Human development and habitat degradation are causing wild salmon populations to decline.

Logging and road building in the Tongass have contributed to the problem by increasing soil erosion, decreasing streamside trees needed by fish, and blocking fish passages used by salmon to migrate to spawning locations. River and stream degradation that occurs as a result of timber production adversely affects many other ecosystem services, like erosion control, nutrient cycling, and water regulation.

Roads can facilitate the spread of harmful agents, prevent the movement of species, or be a source of

pollution.105 Roads also impact water quality through sediment pollution.106 Sediment from construction activities and erosion can find its way into watersheds, which can eventually cover spawning beds, suffocate eggs, clog gills, and overall make it difficult for fish to survive. Further, roads directly affect natural sediment and hydrologic regimes by altering streamflow, sediment loading, channel morphology, channel stability, substrate composition, stream temperatures, water quality, and riparian conditions in a watershed.107 In addition to road sediment, logging practices can also increase risks to fish resources. Because fish benefit from forest coverage and carbon emitted from natural forest debris, any increase in the removal of these resources is damaging to these aquatic ecosystems.108

Despite the sensitivity of these vital species and the clear dangers road building and logging would bring to their habitat, the DEIS provides that the overall risk to fish resources and watersheds amongst the alternatives is unlikely to be large or different from the current 2016 Forest

103 Timothy J. Cline, Jan Ohlberger, Daniel E. Schindler, Effects of warming climate and competition in the ocean for life-histories of Pacific salmon, 3 NATURE ECOLOGY & EVOLUTION, at 935-942 (May 27, 2019), DOI: 10.1038/s41559-019-0901-7

104 Supra note 93.

105 Kevin Boston, The Potential Effects of Forest Roads on the Environment and Mitigating their Impacts,

2 CURRENT FORESTRY REPORTS, at 215-222 (December 2016), https://link.springer.com/article/10.1007/s40725-016-0044-x

106 Id.

107 Supra note 93.

108 Deforestation starves fish, University of Cambridge (June 11, 2014), https://www.cam.ac.uk/research/news/deforestation-starves-fish

Plan[rsquo]s projected conditions. However, while none of the alternatives would change Forest Plan guidelines developed to protect fish and their habitat, the Action Alternatives would indeed provide expanded locational opportunities for road construction and logging. As explained in the DEIS section [ldquo]Transportation, Energy, Communications, and Infrastructure[rdquo], Alternatives 3-6 would be [ldquo]expected to result in more new road miles[rdquo] because additional logging opportunities may be provided through extending areas removed from roadless designation.109

Further, and even more problematic, under the Preferred Alternative, the DEIS identifies that roads and logging are likely to penetrate much farther into currently roadless areas than under Alternatives 1, 2, or 3, resulting in a greater degree of fragmentation.110 As such, because this information clearly indicates that the Action Alternatives would create additional threats to fish habitat, the DEIS insufficiently concludes that risk to fish resources and watersheds is unlikely to change from the current conditions. The USFS must provide a more robust analysis of the environmental effects of the Action Alternatives, which would almost certainly find that these Alternatives are non-options given the grave dangers they will pose to the dwindling natural fish populations.

c. The DEIS Understates the Impacts on Recreation

The Tongass is a rich expanse of nearly endless recreational opportunities. Recreators travel from far and wide to experience pristine watersheds, untouched forest landscapes, and unique wildlife. Fishing expeditions, scenic hikes, bird watching, and many more outdoor activities offer visitors and local residents alike not only recreational pursuits, but also provides physical, emotional, and even spiritual benefits. The benefits of these outdoor places diminish when landscapes are littered with logging infrastructure.

The visitor industry accounts for 60% of natural resource-based employment in Southeast Alaska.111 According to the University of Alaska Center for Economic Development, [ldquo][Iin-state consumer spending related to outdoor recreation trips amounts to nearly $3.2 billion annually. That spending creates about 29,000 direct jobs, and 38,100 total jobs through a multiplier effect (indirect and induced). About one job in ten in Alaska is tied to trip-related outdoor recreation spending.[rdquo]112 The profitability of the outdoor recreation industry stands in stark comparison to the timber industry. The USFS[rsquo]s move to expand logging in the Tongass follows decades of the federal government subsidizing timber sales in the national forest, often amounting to millions of dollars per year. The USFS should not jeopardize the preservation of hundreds of thousands of acres of Tongass forest that provide the foundation for the lucrative recreation industry at the expense of the failing timber industry.

109 DEIS at 3-144.

110 DEIS at 3-68.

111 DEIS at 3-27.

112 The University of Alaska Center for Economic Development, Economic Development in Alaska: Outdoor Recreation Impacts and Opportunities (March 2019), https://ua-ced.org/blog/2019/3/13/outdoor-recreation-in-alaska-impacts-and-opportunities

Visitors often use outfitters or guides to assist in their enjoyment of these great outdoors. For the most part, outfitters and guides ensure that recreational activities are conducted in a manner that protects environmental resources. Changes in land management have the potential to affect outfitter/guide operations that provide commercial recreation opportunities on the forest. As identified in the DEIS itself, [ldquo]By expanding the acres available for harvest, Alternatives 4 to 6 could add to these potential impacts [to outfitter/guide use] by increasing the number and geographic extent of the acres affected.[rdquo]113 Not only does the destruction of the natural appearance of the forest deplete the areas of viable recreational opportunity, it then necessarily forces outfitter/guides to condense their operations, creating a crowding effect that detracts from the entire recreational experience sought in the first place.

Because wildlife observation is an alluring recreational opportunity for visitors and locals, the Alternatives[rsquo] impact on wildlife is also of importance in this analysis. The destruction of trees through logging practices removes shelter from the elements, can directly destroy homes, and changes the overall landscape animals inhabit. Forest ecosystems foster high levels of biodiversity which creates complex food webs that wildlife all up and down the food chain depend on.

The DEIS states, [ldquo]Timber harvest in newly opened areas and associated road construction or reconstruction has the potential to decrease the value of these roadless areas to wildlife through increased habitat fragmentation and reduced landscape connectivity.[rdquo]114 However, it is likely this is more than a

potential possibility. When continuous stretches of forest are disrupted by logging, habitat is divided into smaller and more isolated fragments which forces wildlife into distorted, unnatural habitat formations. Studies show habitat fragmentation can reduce biodiversity significantly and impair key ecosystem functions by decreasing biomass and altering nutrient cycles.115 Fragmented populations can produce increased demographic fluctuation, inbreeding, loss of genetic variability, and local extinctions.116

This will be especially true in the Action Alternatives, which would allow logging and road construction in more expansive areas of the forest. While the Action Alternatives wouldn[rsquo]t necessarily lead to more acres logged under the current 2016 Forest Plan, their effects would be far more disruptive to the natural landscapes wildlife depends on. Species like the Sitka black-tailed deer, black and brown bears, American martens, and Alexander Archipelago wolves are essential not only for the biodiversity of the Tongass, but also for the recreation industry that relies on wild animals. The Tongass also has the potential for occurrence of numerous threatened and endangered species under the Endangered Species Act, including short-tailed albatross, humpback whale, fin whale, sperm whale, and Steller sea lion.117

113 DEIS at 3-50.

114 DEIS at 3-90.

115 Nick M. Haddad et al., Habitat fragmentation and its lasting impact on Earth[rsquo]s ecosystems, 1 SCIENCE ADVANCES (March 20, 2015), DOI: 10.1126/sciadv.1500052

116 Supra note 93.

117 DEIS Table 3.3b-1.

Roads can increase harassment, poaching, collisions with vehicles, and displacement of terrestrial vertebrates, which affect many large mammals.118 As such, not only will the removal of the Roadless Rule directly harm wildlife, it will also inadvertently further harm recreational pursuits as recreators have less opportunity to connect with nature through the observation of wildlife.

DEIS Figure 3.10-1 demonstrates the increase in primitive old-growth acres that will become suitable for harvest under the alternatives. Even if the total volumes expected to be harvested are the same under each alternative, it is the extended reach of areas that will be deemed suitable for harvest under the Action Alternatives that creates a direct threat to recreational pursuits. By providing more suitable acres for harvest in deeper and more primitive stretches of the forest, these Alternatives pose a grave danger to the sanctity of the landscape that is essential for recreational purposes. Visitors do not travel all the way to the Tongass to see patches of cleared land amongst the landscape. The DEIS states that [ldquo]Old-growth acres harvested in recreation places important for fishing and tourism would be expected to increase relative to Alternative 1.[rdquo]119 This result is unacceptable.

Further, the DEIS attempts to limit its analysis of environmental consequences of the alternatives on recreation and tourism by repeatedly asserting that actual logging locations and road development activities will vary depending on the timber sales carried out and, as such, it is difficult to evaluate the effects of the alternatives on particular groups of recreation resources.120 However, this is nothing more than a thinly veiled excuse to avoid disclosing the harmful effects of repealing the Roadless Rule. Regardless of where these additional timber sales are carried out, they will certainly devastate the natural landscape that currently exists. This will negatively impact

recreational use, as it destroys the sanctity recreators seek.

Protecting recreation areas is of particular importance to Patagonia given the industry that it serves. Without the preservation of wild spaces, both customers and employees will have limited opportunities to explore this ancient forest in its natural composition. This deprivation of recreation is a loss Patagonia cannot afford in a world that is increasingly scorched by the destructive force of climate change. Because the Action Alternatives will expand the spatial distribution of future logging activities which will necessarily degrade recreational opportunities, the No Action Alternative is the only viable option.

VIII. Mitigation - Tongass 77 Watersheds and The Nature Conservancy/Audubon Conservation Priority Areas

The Tongass 77 Watersheds ([ldquo]T77 Watersheds[rdquo]) were identified through a comprehensive process where numerous organizations including the Audubon Society, The Nature Conservancy ([ldquo]TNC[rdquo]) and Trout Unlimited, in consultation with federal and state biologists and various community and business stakeholder groups, identified the most important salmon producing

118 Supra note 93.

119 DEIS at 3-170.

120 Id.

watersheds that lacked watershed-scale protections.121 In addition to including valuable fish habitat, these areas include watersheds that capture other biological values to ensure the region will sustain a viable ecosystem. The conservation of these areas is essential to the ecological health of Southeast Alaska.

The 2016 Forest Plan prohibits old-growth timber harvest in T77 Watersheds and TNC/Audubon Conservation Priority Areas. However, as demonstrated in DEIS Table 3.3c-1, suitable young growth in these areas increases between the Action Alternatives.122 Given the environmental and ecological importance of these habitats, the USFS should add mitigation measures to protect these wild spaces and mitigate the adverse environmental impacts young growth harvesting would impose. Mitigation is an important mechanism agencies can use to minimize the potential adverse environmental impacts associated with their actions.123 Patagonia supports the continued protection of these essential conservation areas for the health and wellbeing of delicate fish populations.

IX. Conclusion

Patagonia strongly opposes the Action Alternatives set forth in the DEIS due to their fundamental failure to consider and analyze the realistic impact of removing IRAs on the Tongass environment. Particularly, the Action Alternatives are missing a robust and necessary analysis of climate change influence. Patagonia urges the USFS to select Alternative 1, the only alternative that would refrain from further harming the ecological health of the Tongass and thus, in turn, the environmental health of the United States through the preservation of the essential carbon sink. The Tongass should not be exempt from the Roadless Rule. Additionally, the USFS should undertake further environmental analysis as it pertains to the findings of the 2016 Forest Plan.

121 The Tongass 77: Protecting Southeast Alaska[rsquo]s Best Salmon Watersheds, The Tongass National Forest American Salmon Forest, http://www.americansalmonforest.org/the-tongass-77-factsheet.html

122 DEIS at 3-114.

123 40 C.F.R. [sect] 1502.16(h).

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