March 13, 2023

Christopher Mattrick
District Ranger
USDA Forest Service
Middlebury/Rochester Ranger District
99 Ranger Road
Rochester, VT 05767

Re: Telephone Gap Integrated Resource Project Scoping Comments from Standing Trees; submitted electronically via https://cara.fs2c.usda.gov/Public/CommentInput?Project=60192 and via USPS.

Dear District Ranger Mattrick,

Standing Trees and the Center for Biological Diversity submit the following scoping comments regarding the U.S. Forest Service's Notice of Proposed Action ("NOPA") for the Telephone Gap Integrated Resource Project ("Telephone Gap Project" or "the proposed action").

Standing Trees is an incorporated nonprofit dedicated to advancing policy and legal solutions that protect and restore New England's native forests. Standing Trees seeks to hold state and federal agencies accountable for their actions that affect forests, ensuring that land-managers and policymakers follow the latest climate and biodiversity science and comply with their legal obligations under federal environmental laws, including the National Environmental Policy Act ("NEPA") and the Endangered Species Act ("ESA").

The Center for Biological Diversity is a national, non-profit environmental organization dedicated to the preservation, protection, and restoration of biodiversity, native species, and ecosystems. The Center is headquartered in Tucson, Arizona, with offices in numerous other states, and in Mexico. The Center uses science, policy, and law to advocate for the conservation and recovery of species on the brink of extinction and the habitats they need to survive. The Center has and continues to actively advocate for increased protections for species and their habitats in Vermont, and for the protection of old growth and mature forests across the National Forest System. The Center has members who reside in Vermont and who recreate in the Green Mountain National Forest.

After reviewing the NOPA for the Telephone Gap Project, Standing Trees and the Center for Biological Diversity have serious doubts about the project's compliance with federal laws, regulations, the Green Mountain National Forest 2006 Forest Plan ("Forest Plan"), and recent Executive Orders and guidance from the Biden Administration on preserving mature forests and addressing climate change. It is clear the proposed action will have significant detrimental effects on the character and composition of the Green Mountain National Forest ("GMNF"). Accordingly, Standing Trees and the Center for Biological Diversity believe the Forest Service should withdraw the project as proposed. If the Forest Service moves ahead with the project, as described, Standing Trees and the Center for Biological Diversity offer the following input on the appropriate scope of analysis and requests that the Forest Service analyze the following issues and disclose all impacts in an Environmental Impact Statement ("EIS"), made available to the public for commenting pursuant to NEPA.

Table of Contents

Putting the Telephone Gap Project in Context

I. The Purpose and Need Statement for the Telephone Gap Project is Legally Deficient and Unsupported by Science

II. The Forest Service Must Analyze an Adequate Range of Alternatives

A. The Forest Service Must Consider a No Action Alternative

B. Additional Alternatives for the Forest Service to Consider

III. The Forest Service's Proposed Action Fails to Meet Current Scientific Standards and Demands, Including Failing to Appropriately Implement Executive Order 14072

A. The Age Class Goals Do Not Match the Latest Scientific Understanding of the Ecology of New England Forests.

B. Extensive Science Supports Preserving Mature and Old Trees

C. The Forest Service Has Failed to Comply with Executive Order 14072

D. The GMNF's Two-Class System of Roadless Area Management is Arbitrary

E. The Forest Service Should Reconsider this Project as It Did when Withdrawing the Flat Country Project

IV. The Forest Service Failed to Adequately Consider CEQ's Recently Issued Interim Guidance on Greenhouse Gas Emissions and Climate Change

A. The Proposed Action Does Not Consider the Change to GHG Emissions in the Context of Climate Change.

B. The Proposed Action Does Not Rely on the Best Available Science when Assessing the Project's Impacts.

V. The Forest Service Fails to Address Impacts to Several Uses of the GMNF as Required by the GMNF Forest Plan

A. Discussion of impacts on TES species.

B. The NOPA Discusses Recreation, But Does Not Show How the Telephone Gap Project Would Impact Recreation According to the Requirements of the Forest Plan

1. Recreation Opportunity Spectrum and Visual Impacts
2. GMNF Comprehensive Trail Strategy and Inconsistencies with Forest Plan
3. Proposed South Pond Hut is Inconsistent with 2006 Forest Plan and Other Policies

C. Compliance with Forest-Wide Management Directives

1. Mature and Old Forest
2. Clearcutting
3. Road Construction

D. Compliance with Management Direction for Specific Areas

VI. The Forest Service Must Thoroughly Analyze Water Quality Impacts from the Proposed Action

VII. The Forest Service Must Analyze the Potential for Spread of Non-Native Invasive Species in the Telephone Gap Project Area

VIII. The Forest Service Should Conduct Additional Analysis on the Impacts to Historic and Cultural Resources as Required by Regulation and Forest Service Policy

IX. The Forest Service Must Complete a Thorough Cumulative Impacts Analysis

A. The Forest Service Must Consider the Cumulative Impacts of the Recent Increase in Logging Projects Across GMNF on Forest Carbon Storage

B. The Forest Service Must Consider the Cumulative Impacts of Increased Logging Projects Across GMNF on habitat degradation and fragmentation

C. The Forest Service Must Consider the Cumulative Impacts of Future Maintenance of the Telephone Gap Project.

X. The NOPA Fails to Provide Supporting Documentation to Allow Adequate and Meaningful Public Participation

XI. The Project, as Proposed, Is "Significant" and Requires an EIS

Conclusion

Putting the Telephone Gap Project in Context

Vermont's public lands, including the GMNF, contain many of the oldest and most carbon-dense ecosystems in the region and protect critical headwaters. Recent studies show that among land uses in New England, timber harvest is the leading cause of tree mortality[1] and has the greatest impact on aboveground carbon storage.[2] In addition, researchers at the University of Vermont have found that New England's forests could store two to four times more carbon than they do currently if they were simply allowed to grow old.[3]

The GMNF is Vermont's only National Forest, encompassing more than 400,000 acres in southwestern and central Vermont. The forest is home to a diversity of wildlife, including imperiled species such as the endangered Indiana bat, pine marten, wood thrush, red-eyed vireo, ovenbird, cerulean warbler, a variety of salamanders, and the northern long-eared bat, which was recently uplisted from threatened to endangered under the ESA. Nevertheless, the last several years have seen a rapid increase in area logged in the forest; in only the last six years, the Forest Service has approved more than 40,000 acres of logging—10% of the GMNF.

The Forest Service now proposes to log an additional 11,801 acres in the GMNF via the Telephone Gap Project, including regionally rare forest types that are critical for carbon storage and climate resilience and important habitat for endangered and threatened species.

I. The Purpose and Need Statement for the Telephone Gap Project is Legally Deficient and Unsupported by Science.

The Telephone Gap Project proposes to log a total of 11,801 acres of the GMNF, and it proposes to accomplish this using uneven-aged, even-aged and two-aged silvicultural methods.

[1] "Timber harvest as the predominant disturbance regime in northeastern U.S. forests: effects of harvest intensification" (Brown et al. 2018), attached as Exhibit 1.
[2] "Social and biophysical determinants of future forest conditions in New England, Effects of a modern land-use regime" (Duveneck and Thompson, 2019), attached as Exhibit 2 (hereinafter "Duveneck and Thompson (2019)").
[3] "Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States" (Keeton et al. 2011), attached as Exhibit 3.

While the Forest Service states that the purpose of this proposed logging is to "move the forested landscape toward desired future forest habitat and composition and age class objectives" outlined in the Forest Plan, it never furnishes any actual statement of *need* for the extensive logging activities it has proposed. *See* NOPA at 16. The NOPA completely glosses over the fact that, despite its purported relative abundance in the project area, large, unfragmented tracts of mature and old northern hardwood forests are actually regionally rare and generally concentrated on the limited acreage of public forests, especially National Forest lands. Likewise, the NOPA also fails to clarify that, despite the relative under-representation of mixedwood, softwood, aspen, birch, and oak forest habitat types in the project area, these forest habitat types are regionally common and generally present on state and private lands and where ecological tendencies would lead to such types. Thus, the need for the extensive logging contemplated in the proposed action is dubious at best. As explained further below, the "diversity of habitat" objective the Forest Service promotes through the proposed action can be accomplished in ways still consistent with the Forest Plan without the extensive logging currently proposed, and the tradeoff this project presents—liquidating the rarest forest habitat type present in the region in order to achieve some habitat diversity—is not supported by science or governing law.

To comply with NEPA, federal agencies must provide a statement explaining the purpose and need for the proposed action. *See* 40 CFR § 1501.5(c)(2) (2020); § 1502.13 (2020). It is important that this statement accurately reflects the proposed action's purpose and need because this statement in turn informs the range of alternatives the agency will consider as part of its NEPA analysis. *See League of Wilderness Defs.-Blue Mountains Biodiversity Proj. v. U.S. Forest Serv.*, 689 F.3d 1060, 1069 (9th Cir. 2012). The Forest Service cannot define the purpose and need so narrowly as to eliminate reasonable alternatives from analysis. *City of Carmel–By–*

The–Sea v. U.S. Dep't of Transp., 123 F.3d 1142, 1155 (9th Cir. 1995); *see also Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 667 (7th Cir. 1997) (finding the range of alternatives the Corps considered to be inadequate because the agency too narrowly defined the project's purpose, emphasizing that the evaluation of alternatives is intended to be an evaluation of alternative means to accomplish the *general goal* of the action). Doing so would impermissibly reduce an agency's environmental analysis to a "foreordained formality." *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt*., 606 F.3d 1058, 1070 (9th Cir. 2009) (quoting *Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1066 (9th Cir. 1998)).

The Forest Service claims the purpose and need for the Telephone Gap Project is "driven by the Forest Plan goals and objectives and determined by the difference between the existing resource condition within the project area." NOPA at 7. The Forest Service then provides at least 15 purposes and needs for the project as it relates to multiple purported "gaps" between the existing and desired conditions for each resource. Specifically, the Forest Service claims the following purposes and needs: (1) "to address the substantial imbalance in the existing proportion of northern hardwood, mixedwood, and softwood habitat types compared to long term composition objectives;" (2) "to regenerate aspen and birch habitats;" (3) "to increase oak habitat;" (4) "to increase the amount of regenerating age class (0 to 9 years old);" (5) "to increase the resilience of forests with a diverse mix of habitat composition and age class distribution;" (6) "to bolster the forests' adaptation capacity in response to climate change stressors;" (7) "to provide a source of renewable wood products and fuels;" (8) "to harvest forested stands using silvicultural practices to achieve a hardwood;" (9) "to address ongoing erosion and sedimentation on some roads and trails;" (10) "to restore natural stream and wetland ecological processes at an abandoned dam structure;" (11) "to improve overall recreation resource within the project area;"

(12) "to reduce encroaching vegetation to maintain existing vistas and provide new vistas;" (13) "to improve the transportation system within the project area;" (14) "to provide a hut-to-hut trail and camping experience in the State or Vermont;" and finally (15) "to respond to an application received for a new maple tapping permit." *Id.* at 7–15. These 15 very distinct objectives are proposed to be achieved in specific ways at different locations across the property. Based on the description of proposed activities in the NOPA, it appears that the proposed activities to "advance goals" of the Plan will mainly be various logging methods, prescribed fire, and mechanical and herbicide treatments. *Id*. at 16-17. Attempting to formulate action alternatives that fit all 15 of these disparate purposes and needs will unduly narrow the scope of alternatives considered by the Forest Service. The Forest Service should frame the purpose and need statement so that it may consider an adequate range of alternatives, as discussed in more detail below.

A properly crafted purpose and need statement would integrate the purpose of the Forest Plan with current Executive Orders 14072[4] and 14008[5], to identify the best management approaches for current stand conditions to fulfill the mandate of executive direction. The July 2021 Telephone Gap Project's Landscape Assessment notes that "Old growth conditions are…rare on the [GMNF]…Timber harvesting since land abandonment in the early 20th century has perpetuated more frequent and larger-sized disturbances than would be typical under natural disturbance regimes (i.e. from insects, disease, wind, ice, floods, or beaver activity)." USDA Forest Service, Telephone Gap Integrated Resource Project Landscape Assessment, July 2021 (hereinafter "TGIRP Landscape Assessment"). Incorporating up-to-date assessments and

[4] "Strengthening the Nation's Forests, Communities, and Local Economies" (April 22, 2022) (hereinafter "EO 14072").
[5] "Executive Order on Tackling the Climate Crisis at Home and Abroad" (January 27, 2001) (hereinafter "EO 14008").

science, along with new directives from the Executive Orders, is not incompatible with the Forest Plan; however, it would be inconsistent with the Forest Plan, as well as the Forest Service's other legal obligations, to ignore changes in circumstances, science and legal direction that has occurred since the Forest Plan was adopted 17 years ago.

Failing to account for changed circumstances and updated science removes critical context from both the purpose and need for the project and possible alternatives (i.e., is the management needed and is this the most appropriate management for the subject stands?). In order to demonstrate the need for the action, the Forest Service must do more than simply state a preference for "high-quality sawtimber and other timber products," NOPA at 11, but must actually connect stand conditions, best science, and desired future conditions to this supposed need. Without this, the NOPA's purpose and need statement is inadequate to satisfy the NEPA requirements because it is too narrow and eliminates reasonable alternatives.

The Forest Plan measures progress towards desired future conditions and age class objectives using "stands" of trees that are larger in acreage than how a natural opening or regenerating forest would occur on the landscape.[6,7] While the Telephone Gap Project's purpose and need statement implies that the only way to achieve Forest Plan age class objectives is through silvicultural prescriptions, science says otherwise. There is a tremendous amount of natural regeneration in the Telephone Gap project area right now, but this is not captured in the Forest Service's analysis because it does not exist in patch sizes that compare with measurements at the stand level. This self-serving model makes it difficult, if not impossible, for non-

[6] "Scale and frequency of natural disturbances in the northeastern U.S.: implications for early successional forest habitats and regional age distributions," Lorimer and White (2003), attached as Exhibit 4 (hereinafter Lorimer and White (2003)).

[7] "Forest-clearing to create early-successional habitats: Questionable benefits, significant costs," Kellet et al (2023), attached as exhibit 44.

silvicultural methods to be employed to meet Forest Plan goals, and thus arbitrarily limits the range of proposed activities that could be used to meet the purpose and need.

A properly crafted purpose and need statement would address the Forest Plan direction to "enhance wildlife and plant habitat conditions, including those for threatened, endangered, and rare species," Forest Plan at 9, and "[p]rotect critical habitat and key habitat features upon which federally listed endangered, threatened, proposed species, and Regional Forester's Sensitive Species depend." *Id.* at 12. Forest Plan Goal 2 is to "maintain and restore quality, amount, and distribution of habitats to produce viable and sustainable populations of native and desirable non-native plants and animals." *Id.* at 10. Therefore, management actions should be designed to meet these goals and stipulations, including retaining mature and old forest to benefit the habitat needs of endangered species such as the recently uplisted northern long-eared bat.

By including 15 disparate purposes, the Forest Service defined its purpose and need so narrowly as to exclude more reasonable alternatives, making the project a foregone conclusion. *National Wildlife Refuge Association v. Rural Utility Service*, 580 F.Supp.3d 588 (W.D. Wis. 2022)("[W]hen combined with five, other sub-purposes, the overall impact is incredibly specific, resulting in most reasonable alternative being defined out of the EIS."). Accordingly, the Telephone Gap Project purpose and need statement is insufficient under NEPA. The Forest Service must redefine its purpose and need for the proposed action so that it does not express a predetermined preference for harvesting high quality timber products at the expense of sufficiently analyzing reasonable alternatives.

II. The Forest Service Must Analyze an Adequate Range of Alternatives.

NEPA mandates that an Environmental Assessment ("EA") describe the environmental impacts of both the proposed action and alternatives to the proposed action. 40 C.F.R. §

1501.5(c)(2). NEPA similarly requires an alternatives analysis for an EIS. 40 C.F.R. § 1502.14. The alternatives analysis, in which an agency evaluates "reasonable alternatives," is the heart of the EA. 40 C.F.R. § 1502.14(a). An agency may consider *only* the proposed action when there are no "unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(E); *see also* 36 C.F.R. § 220.7(b)(2)(i). Unresolved conflicts exist when the agency lacks a consensus about the proposed action based on input from interested parties. National Environmental Policy Act Procedures, 73 Fed. Reg. 43,084, 43,092 (July 24, 2008) (codified at 36 C.F.R. Part 220). Further, agencies "shall not commit resources prejudicing selection of alternatives before making a final decision." 40 CFR §§ 1502.2(f), 1506.1.

Council on Environmental Quality ("CEQ") regulations mandate that federal agencies shall "inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. It is also incumbent upon federal agencies to "[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources." *Id*. § 1501.2(c); *see also* 42 U.S.C. § 4332(E).

With these considerations in mind, the Forest Service should include and analyze the following reasonable alternatives as part of its NEPA analysis.

A. The Forest Service Must Consider A No Action Alternative.

A "No Action Alternative" is the bare minimum alternative analysis an agency should undertake for an EA or EIS. 40 CFR § 1502.14(c). One of the most critical purposes of a No Action Alternative is to establish a baseline against which the proposed action can be measured. NEPA requires agencies to consider both the detriments *and benefits* of proposed projects, which

would include considering the benefits of reasonable alternatives as well. There are numerous benefits of not moving ahead with the proposed action (i.e., taking No Action), including, but not limited to: the benefit of retaining older, mature trees for in-situ carbon storage and avoiding foregone sequestration that would occur with logging; the benefit of retaining mature forests to meet the intent of EO 14072; habitat benefits for the Northern Long-eared Bat and other species that rely on mature, old, or interior forests or are sensitive to harvest, maple sugaring, burning, or recreation impacts; avoiding potential detrimental impacts to water quality due to runoff, sedimentation, and potential herbicide contamination; increasing resilience to flooding and droughts by slowing, sinking, and storing more water within the Telephone Gap Project area; avoiding loss or damage to historic and cultural resources located within the proposed action area; avoiding introduction of invasive species; avoiding impacts to flora and fauna from proposed expansion of recreation infrastructure; retention or enhancement of wilderness character in the Pittenden Inventoried Roadless Area; and avoiding visual and noise impacts, among many others. A No Action Alternative should also carefully detail how the full range of habitats required by native species can be facilitated within the project area by simply allowing natural processes and forest aging to create habitat diversity and complexity.

Per the recent interim CEQ guidance for greenhouse gas accounting in federal decision-making[8], a No Action Alternative should consider the amount of greenhouse gas emissions that would be avoided by not conducting the management activities in the proposed action, including emissions from logging, transportation of equipment and harvested materials, soil impacts, herbicide application, and the amount of carbon that would be sequestered and stored in the

[8] National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed, Reg. 1196 (Jan. 9, 2023) (hereinafter "NEPA Climate Guidance").

forest in the time that it would take for the forest to recover to present day conditions, if it were logged.

Further, the analysis should account for the emissions that would result from the end-uses of wood products specified in the proposed action. Proposed "timber sales would generate an estimated 41,700 to 66,400 hundred cubic feet (CCF) of sawtimber, pulpwood, fuel wood or biomass. The quantity of pulpwood, fuel wood or biomass generated would be approximately 20,800 to 43,160 CCF or 16,500 to 34,000 cords." NOPA at 19. In other words, anywhere from approximately one-third to 100% of woody material extracted from timber sales could go to pulpwood, fuel wood, or biomass, all of which release carbon directly back into the atmosphere within short timeframes. Such short-lived wood products are especially detrimental for the climate, as reported in numerous recent studies. Burning biomass for electricity releases 1.5 times more carbon than coal for an equivalent amount of energy.[9,10] At a time when we need to be shifting to low carbon energy, burning biomass results in *more* emissions of greenhouse gases, accelerating climate change.[11] After harvesting and burning, it takes decades or centuries for forest carbon levels to be restored,[12] and this is based on a shaky assumption that a forest is able to regain its former age and structural complexity, an assumption that is not supported with monitoring or enforcement. Indeed, many assumptions in support of increasing reliance on biomass energy have been disproved.[13,14,15]

[9] "Does replacing coal with wood lower CO2 emissions? Dynamic lifecycle analysis of wood bioenergy" (Sterman et al. 2018), attached as Exhibit 5.
[10] "Does wood bioenergy help or harm the climate?" (Sterman et al. 2022), attached as Exhibit 6.
[11] "Trees, Trash, and Toxics: How Biomass Energy Has Become the New Coal" (Mary S. Booth, Partnership for Policy Integrity, April 2, 2014), attached as Exhibit 7.
[12] Sterman et al. (2018).
[13] "Correcting a fundamental error in greenhouse gas accounting related to bioenergy" (Haberl et al. 2012), attached as Exhibit 8.
[14] "Scientific evidence does not support the carbon neutrality of woody biomass energy" (Gunn et al. 2018), attached as Exhibit 9.
[15] "Fixing a critical climate accounting error" (Searchinger et al. 2009), attached as Exhibit 10.

For example, a 2017 study conducted in New England on the climate impacts of pellet stoves concluded that their benefits are tied to the amount of sawmill residues used in their manufacturing, and whether or not the overall amount of timber harvest increases due to their use:

> An industry-average pellet feedstock mix (50% sawmill residues, 50% pulpwood) appeared to generate heat that was at least at parity with fossil-fuel heating alternatives when harvest levels remain unchanged due to pellet production. If harvest levels increase due to pellet production, using pellet heat increased GHG emissions. If baseline harvest levels drop (e.g., following the loss of low-grade markets), GHG emissions from pellet heat would at least remain stable relative to fossil alternatives."[16]

Given this recent scientific research, it is critical the Forest Service analyzes an appropriately scoped No Action Alternative, weighing the benefits to the climate, especially in the form of reduced greenhouse gas emissions, that would accrue if the proposed action did not move forward. Only then can the Forest Service appropriately weigh and consider the detriments and benefits of the proposed action.

B. Additional Alternatives for the Forest Service to Consider.[17]

In addition to a No Action Alternative, the Forest Service should generate and analyze additional alternatives that explore a reasonable range of options to meet the purpose and need while avoiding or minimizing harmful impacts. Additional alternatives should consider at a minimum:

[16] "Greenhouse gas emissions of local wood pellet heat from northeastern US forests" (Buchholz et al. 2017), attached as Exhibit 11.

[17] As discussed below, the public does not have all of the information necessary to fully evaluate this project and to suggest all possible alternatives that would still meet the objectives of the Forest Plan while sufficiently taking into account updated science and legal direction since the Forest Plan was adopted. Therefore this is a non-exhaustive list of possible alternatives for the Forest Service to consider and Standing Trees reserves the right to inform the Forest Service of additional possible alternatives once it has had the opportunity to review additional relevant project information and analysis.

- Avoiding all roadless area impacts and protecting roadless area values by guiding logging and recreational development (including trails for non-conforming uses) away from Forest Plan Inventories Roadless Areas. Such an analysis should also consider how roadless area logging, road construction/reconstruction, and recreational development, regardless of whether a roadless area is managed according to the 2001 Roadless Area Conservation Rule, may change the outcome of future Ch 70 wilderness inventories and evaluations and the potential for Congress to include these lands in the National Wilderness Preservation System, especially since the current Forest Plan has outlived its 15-year lifespan as dictated by the National Forest Management Act;
- increasing the size of the buffer from watercourses and wetlands;
- expanding those portions of the proposed action related to improving water quality and flows, reducing soil and sediment erosion, removing dams, and recontouring and naturalizing roads and trails;
- reintroducing or augmenting beaver populations to expand wetland habitats in the project area, increasing water retention and storage to mitigate droughts and floods, and naturally creating conditions for future complex early-seral forests;
- avoiding all mature and old forest, as defined in the Forest Plan, to comply with EO 14072 and reduce the risk of harm to species dependent on mature and old forests, including the northern long-eared bat;
- taking inventory of and excluding from the planned treatment stands with structural characteristics associated with old-growth but that are not classified as

such based on a spatially-dense sampling of stand age used in stand exams for this project;

- restricting management prescriptions in "regeneration" and "young forest"-aged stands, per the Forest Plan, to natural disturbance silviculture to improve outcomes for soils, water quality, biodiversity, stand composition and structural complexity, and more;
- selecting only those management actions that do not require additional miles of roads beyond what is permitted in the Forest Plan.

III. The Forest Service's Proposed Action Fails to Meet Current Scientific Standards and Demands, Including Failing to Appropriately Implement Executive Order 14072.

A. The Age Class goals do not match the latest scientific understanding of the ecology of New England forests.

Today, old forests – the forests that once dominated the region – are functionally absent from northern New England.[18] Just 0.3% of New England forests are older than 150 years.[19] Elk, caribou, wolverine, wolves, and cougars, once common in Vermont, have been entirely eliminated. Pine marten, a species threatened by logging in New England,[20] is a State of Vermont endangered species and persists in only two isolated patches of remote, interior forest. Salmon have long since failed to naturally reproduce due to habitat destruction and fragmentation. Interior and old forest birds like wood thrush and Bicknell's Thrush are in decline,[21] and a

[18] VERMONT CONSERVATION DESIGN – NATURAL COMMUNITY AND HABITAT TECHNICAL REPORT, Zaino et al. (2018), attached as Exhibit 12 (hereinafter "Zaino et al. (2018)").
[19] USDA Forest Service (2022b). *Forest inventory EVALIDator web-application Version 1.8.0.01., Forest inventory and analysis program.* St. Paul, MN: Northern Research Station.
[20] Evans and Mortelliti (2022), "Effects of forest disturbance, snow depth, and intraguild dynamics on American marten and fisher," attached as exhibit 46.
[21] Rushing et al (2016), "Quantifying drivers of population dynamics for a migratory bird throughout the annual cycle," attached as exhibit 13.

primary driver is logging.[22] Forest structural complexity remains well below pre-European settlement levels.[23] By nearly any objective measure of health, Vermont's ecosystems remain in the intensive care unit.

According to the definitive paper on disturbance frequency and intensity in New England, "the proportion of the presettlement landscape in seedling–sapling forest habitat (1–15 years old) ranged from 1 to 3% in northern hardwood forests (Fagus–Betula–Acer–Tsuga) of the interior uplands." "The current estimates of 9-25% [seedling-sapling habitat] for the northern New England states are probably several times higher than presettlement levels." Gap size in Hemlock-Northern Hardwood forests averaged less than .75 acres. Beech was the dominant species among Northern Hardwoods, comprising perhaps 30% of the forest. Stand replacing events occurred, on average, only every 1,000 to 7,500 years.[24]

The Forest Service's own analysis echoes these themes: "Old growth conditions are also rare on the [GMNF]…Timber harvesting since land abandonment in the early 20th century has perpetuated more frequent and larger-sized disturbances than would be typical under natural disturbance regimes (i.e. from insects, disease, wind, ice, floods, or beaver activity)." TGIRP Landscape Assessment at 11.

We can measure Vermont's progress towards forest ecosystem restoration against several large landscape conservation visions that have gained traction in the past fifteen years. In 2006, Wildlands and Woodlands, a program of Harvard Forest and Highstead Foundation, produced a widely supported vision for New England that included a goal for 10% of all regional forestlands

[22] Betts et al (2022), "Forest degradation drives widespread avian habitat and population declines," attached as exhibit 45.
[23] Ducey et al (2013), "Late-Successional and Old-Growth Forests in the Northeastern United States: Structure, Dynamics, and Prospects for Restoration," attached as exhibit 14.
[24] Lorimer and White (2003).

to be conserved as wildlands. Fifteen years later, only 3% of Vermont and New England as a whole is in wildlands management, and relatively little progress has been made toward the 10% goal, despite excellent progress towards conserving forests for extraction of wood products.

More recently, based on the rapid decline of wildlife populations[25] and the rapid degradation of the climate,[26] scientists have suggested that much more aggressive measures must be taken to stave off climate and extinction catastrophe. The 2019 Global Deal for Nature (the inspiration for "30x30") calls for 30% of lands and waters to be permanently protected in GAP 1 and 2 protected areas[27,28] by 2030 to maintain and restore biodiversity, with an additional 20% percent conserved to stabilize the climate.[29] This vision was partially endorsed by the Biden Administration in EO 14008. To date, the Forest Service, including the GMNF, has not revealed how it intends to implement the portions of EO 14008 focused on 30x30.

Large blocks of intact forest minimize harmful vectors for the spread of invasive species and allow natural disturbances to play out across a sufficiently large landscape to ensure that there is a mix of early and late successional habitats required by the full spectrum of New England's forest-dependent species. Recent studies show that unlogged forests in New England exhibit the greatest structural complexity and tree species diversity.[30,31] Although passive management is most often all that's required to restore old forest conditions,[32] it takes centuries

---

[25] VERTEBRATES ON THE BRINK AS INDICATES OF BIOLOGICAL ANNIHILATION AND THE SIXTH MASS EXTINCTION, Ceballos et al. (2020), attached as Exhibit 15.
[26] "Climate Change 2021: The Physical Science Basis" (Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change), attached as Exhibit 16.
[27] The US Geological Survey maintains the nation's protected area database and has created a "GAP Status Code Assignment" to categorize types of conservation across all land ownerships, public and private.
[28] GETTING TO 30X30: GUIDELINES FOR DECISION-MAKERS, Dreiss and Malcom (2020), attached as Exhibit 17.
[29] A GLOBAL DEAL FOR NATURE: GUIDING PRINCIPLES, MILESTONES, AND TARGETS, Dinerstein et al. (2019), attached as Exhibit 18.
[30] Miller et al. (2018), "EASTERN NATIONAL PARKS PROTECT GREATER TREE SPECIES DIVERSITY THAN UNPROTECTED MATRIX FORESTS," ATTACHED AS EXHIBIT 47.
[31] Miller et al. (2016), "NATIONAL PARKS IN THE EASTERN UNITED STATES HARBOR IMPORTANT OLDER FOREST STRUCTURE COMPARED WITH MATRIX FORESTS," ATTACHED AS EXHIBIT 48.
[32] *See* Zaino et al. (2018).

to develop forest complexity, requiring permanent protection from timber harvest if restoration is to be successful.

B. Extensive Science Supports Preserving Mature and Old Trees.

The Forest Service's decision whether to proceed with the Telephone Gap Project and, if so, under what conditions, must be supported by sound science. Accordingly, the Forest Service must incorporate into its analysis the many recent peer-reviewed studies that investigate climate change mitigation and the intersection of forest ecology and forest carbon. Climate change is driving and exacerbating a range of threats to Vermont, the New England region, and the globe. The 2021 Vermont Climate Assessment notes that "Vermont is becoming warmer (average annual temperature is about 2°F warmer since 1900), and Vermont's winters are becoming warmer more quickly (winter temperatures have warmed 2.5x more quickly than average annual temperature since 1960). Vermont is also becoming wetter (average annual precipitation has increased by 21% or 7.5 inches since 1900)."[33] The Assessment highlights flooding, drought, harmful algal blooms, and impacts to forestry operations among the many consequences of these climatic changes. Although perhaps not a primary driver of the spread of invasive species, ticks, and disease, climate change can amplify these threats.

International bodies share this concern over forest protection and climate mitigation. On November 12, 2021, the U.S. joined 140 other nations in signing a commitment "to halt and reverse forest loss and *land degradation* by 2030" (emphasis added) at the COP 26 UN Climate Change Conference in Glasgow, Scotland.[34] Soon afterward, the February 2022 Intergovernmental Panel on Climate Change Report found that "[s]afeguarding biodiversity and

[33] Vermont Climate Assessment. 2021. University of Vermont, UVM Gund Institute for Environment, TNC in Vermont, attached as Exhibit 19.
[34] Glasgow Leaders' Declaration on Forests and Land Use, attached as Exhibit 21.

ecosystems is fundamental to climate resilient development … and to [climate] mitigation and adaptation."[35]

On the global scale, forest protection represents approximately *half or more* of the climate change mitigation needed to hold temperature rise to 1.5 degrees Celsius.[36] Vermont may be a relatively small state, but its temperate deciduous forests are among the planet's most effective carbon sinks. In the U.S., New England's in-situ carbon storage potential is second only to that of the Pacific Northwest, but carbon storage levels remain artificially low due to timber harvest frequency and intensity. Across the Northeast US and Upper Midwest, timber harvest accounts for 86% of annual forest carbon loss. In comparison only 9% of forest carbon in the same geographic area is lost annually from insect damage, and 3% from conversion to other land uses.[37] Other recent studies show that among land uses in New England, timber harvest is the leading cause of tree mortality[38] and has the greatest impact on aboveground carbon storage.[39]

The GMNF is an insurance policy against a changing climate and increasing extinction rates. The GMNF contains many of the oldest and most carbon-dense ecosystems in New England, supporting native biodiversity and protecting critical headwaters. Its management should reflect its unique values in the broader landscape, serving the greatest good for the greatest number by maximizing carbon and water storage, water quality, and habitat for species that require old and unfragmented forests.

---

[35] IPCC Climate Change 2022 Impacts, Adaptations, and Vulnerability Summary for Policymakers, attached as Exhibit 20.
[36] UNEXPECTEDLY LARGE IMPACT OF FOREST MANAGEMENT AND GRAZING ON GLOBAL VEGETATION BIOMASS, Erb et al. (2018), attached as Exhibit 22.
[37] ATTRIBUTION OF NET CARBON CHANGE BY DISTURBANCE TYPE ACROSS FOREST LANDS OF THE COTERMINOUS UNITED STATES, Harris et al. (2016), attached as Exhibit 23.
[38] Brown et al. (2018).
[39] Duveneck and Thompson (2019).

The 2018 Vermont Conservation Design Natural Community and Habitat Technical Report, jointly produced by the Vermont Departments of Forests, Parks and Recreation and Fish and Wildlife, puts it this way:

> As a result of the persistent structural and vegetative complexity above ground and the diverse biome belowground and associated complex biotic and abiotic relationships that develop over time, old forests also protect water quality, and sequester and store carbon, provide opportunities for adaptation of species and community relationships to climate and other environmental changes, and an ecological benchmark against which to measure active management of Vermont's forests.[40]

There is a common misconception that young forests are better than old when it comes to removing carbon in the atmosphere. In fact, old forests store much more carbon than young forests, and they continue to accumulate carbon over time.[41,42,43] What's more, the rate of carbon sequestration also increases as trees age.[44]

Due to current management practices, including harvest frequency and intensity, Vermont's forests do not currently sequester and store as much carbon or produce high levels of ecosystem services compared to what they would under passive management, and are still recovering from extensive clearing in the eighteenth and nineteenth centuries. A 2019 paper by Harvard Forest researchers found that:

> Among land uses, timber harvesting [has] a larger effect on [aboveground carbon] storage and changes in tree composition than did forest conversion to non-forest uses… Our results demonstrate a large difference between the landscape's potential to store carbon and the landscape's current trajectory.[45]

---

[40] Zaino et al. (2018).
[41] RE-EVALUATION OF FOREST BIOMASS CARBON STOCKS AND LESSONS FROM THE WORLD'S MOST CARBON-DENSE FORESTS, Keith et al. (2009), attached as Exhibit 25.
[42] OLD-GROWTH FORESTS AS GLOBAL CARBON SINKS, Luyssaert et al. (2008), attached as Exhibit 26.
[43] OLDER EASTERN WHITE PINE TREES AND STANDS SEQUESTER CARBON FOR MANY DECADES AND MAXIMIZE CUMULATIVE CARBON, Masino et al. (2021), attached as Exhibit 27.
[44] Stephenson et al., RATE OF TREE CARBON ACCUMULATION INCREASES CONTINUOUSLY WITH TREE SIZE (2014), attached as Exhibit 28.
[45] Duveneck and Thompson (2019).

A 2011 paper by UVM Professor William Keeton found that Northeast secondary forests have the potential to increase biological carbon sequestration by a factor of 2.3–4.2.[46] The paper notes:

> …there is a significant potential to increase total carbon storage in the Northeast's northern hardwood-conifer forests. Young to mature secondary forests in the northeastern United States today have aboveground biomass (live and dead) levels of 107 Mg/ha on average (Turner et al. 1995, Birdsey and Lewis 2003). Thus, assuming a maximum potential aboveground biomass range for old-growth of approximately 250–450 Mg/ha, a range consistent with upper thresholds in our data set and the lower threshold observed at Hubbard Brook, our results suggest a potential to increase in situ forest carbon storage by a factor of 2.3–4.2, depending on site-specific variability. This would sequester an additional 72–172 Mg/ha of carbon.[47]

Forests in temperate zones such as in the Eastern U.S. have a particularly high untapped capacity for carbon storage and sequestration because of high growth and low decay rates, along with exceptionally long periods between stand replacing disturbance events, similar to the moist coastal forests of the Pacific Northwest. Further, because of recent recovery from an extensive history of timber harvesting and land conversion for agriculture in the 18th, 19th, and early 20th centuries, median forest age is about 75 years,[48] which is only about 25–35% of the lifespan of many of the common tree species in these forests.[49] Because of our remarkable forest ecosystems here in Northeastern North America, several global studies have highlighted the unique potential of our temperate deciduous forests to contribute on the global stage to climate stabilization and resilience.[50,51]

---

[46] Keeton et al. (2011).
[47] Keeton et al. (2011).
[48] "Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good," Moomaw et al. (2019), attached as Exhibit 30 (hereinafter Moomaw et al. (2019)).
[49] Moomaw et al. (2019).
[50] A GLOBAL SAFETY NET TO REVERSE BIODIVERSITY LOSS, Dinerstein et al. (2020), attached as Exhibit 31.
[51] AREAS OF GLOBAL IMPORTANCE FOR TERRESTRIAL BIODIVERSITY, CARBON, AND WATER, Jung et al. (2020), attached as Exhibit 32.

Old forests are also the most resilient to changes in the climate, producing the highest outputs of ecosystem services like clean water, and reducing the impacts of droughts and floods. These ecosystem services protect downstream communities from flooding, purify drinking water at low cost, and maintain base flows and low temperatures in rivers during hot summers for the benefit of fish and wildlife.

In New England, frequent flooding and nutrient-driven water quality degradation are two of our most costly environmental crises, and both are compounded by climate change. Mature and old forests naturally mitigate against flooding and drought by slowing, sinking, and storing water that would otherwise rapidly flow into our streams, rivers, and lakes.[52] Scientists have also shown that old forests are exceptional at removing nutrients, like phosphorus, that drive harmful algae blooms.[53]

After Tropical Storm Irene ravaged New England in 2011, Vermont's Department of Forests, Parks, and Recreation commissioned a report entitled "Enhancing Flood Resiliency of Vermont State Lands." According to the report:

> There may be a tendency to assume that lands in forest cover are resilient to the effects of flooding simply by virtue of their forested status. However, forest cover does not necessarily equate to forest health and forest flood resilience. Headwater forests of Vermont include a legacy of human modifications that have left certain land areas with a heightened propensity to generate runoff, accelerate soil erosion, and sediment streams. These legacy impacts affect forest lands across the state... The quality of [today's] forests is not the same as the pre-Settlement old growth forests. The legacy of early landscape development and a history of channel and floodplain modifications continue to impact water and sediment routing from the land.[54]

[52] ENHANCING FLOOD RESILIENCY OF VERMONT STATE LANDS, Underwood and Brynn (2015), attached as Exhibit 33 (hereinafter "Underwood and Brynn (2015)").
[53] FOREST STREAM INTERACTIONS IN EASTERN OLD-GROWTH FORESTS, Warren et al. (2018), attached as Exhibit 34.
[54] Underwood and Brynn (2015).

A 2019 study led by the University of Vermont looked into the climate resilience of older compared to younger forests. The research found that:

> [older forests] simultaneously support high levels of carbon storage, timber growth, and species richness. Older forests also exhibit low climate sensitivity…compared to younger forests… Strategies aimed at enhancing the representation of older forest conditions at landscape scales will help sustain [ecosystem services and biodiversity (ESB)] in a changing world… Although our analysis suggests that old forests exhibit the highest combined ESB performance, less than 0.2% of the investigated sites are currently occupied by forests older than 200 years. This suggests a large potential to improve joint ESB outcomes in temperate and boreal forests of eastern North America by enhancing the representation of late-successional and older forest stand structures… [55]

Thus, the science, much of which has developed since the GMNF last updated its Forest Plan in 2006, is clear: mature and old forests provide many documented ecological benefits, both locally and globally, especially in the context of carbon storage and climate resiliency. The Forest Service must incorporate this updated understanding into its analysis of the environmental impacts of the Telephone Gap Project and its alternatives.

C. The Forest Service has failed to comply with Executive Order 14072.

The Scoping Comment fails to explain how proposed logging will comply with the Forest Plan standards and prohibitions, as well as President Biden's Executive Order 14072 ("EO 14072"), Strengthening the Nation's Forests, Communities, and Local Economies. EO 14072 reads:

> Sec. 2. Restoring and Conserving the Nation's Forests, Including Mature and Old-Growth Forests. My Administration will manage forests on Federal lands, which include many mature and old-growth forests, to promote their continued health and resilience; retain and enhance carbon storage; conserve biodiversity; mitigate the risk of wildfires; enhance climate resilience; enable subsistence and cultural uses; provide outdoor recreational opportunities; and promote sustainable local economic development.[56]

---

[55] THE CLIMATE SENSITIVITY OF CARBON, TIMBER, AND SPECIES RICHNESS COVARIES WITH FOREST AGE IN BOREAL-TEMPERATE NORTH AMERICA, Thom et al. (2019), attached as Exhibit 35.

[56] EO 14072, 87 Fed. Reg. at 24, 852.

This directive could not be clearer. EO 14072 lists several management objectives for forests on Federal lands that are incompatible with the Telephone Gap Project as currently proposed. The Forest Service has identified extensive mature forests in the Telephone Gap Project area, much of which it is planning to log, which would not comply with the letter or spirit of EO 14072.

The Executive Order continues:

> (b) The Secretary of the Interior, with respect to public lands managed by the Bureau of Land Management, and the Secretary of Agriculture, with respect to National Forest System lands, shall, within 1 year of the date of this order, define, identify, and complete an inventory of old-growth and mature forests on Federal lands, accounting for regional and ecological variations, as appropriate, and shall make such inventory publicly available.
>
> (c) Following completion of the inventory, the Secretaries shall:
> (i) coordinate conservation and wildfire risk reduction activities, including consideration of climate-smart stewardship of mature and old-growth forests, with other executive departments and agencies (agencies), States, Tribal Nations, and any private landowners who volunteer to participate;
> (ii) analyze the threats to mature and old-growth forests on Federal lands, including from wildfires and climate change; and
> (iii) develop policies, with robust opportunity for public comment, to institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth forests on Federal lands."[57]

The required inventory is due April 22, 2023. The Forest Service must incorporate the results of the pending inventory, including the coordination and analysis that must follow, into its analysis of the Telephone Gap Project. Until that has happened and the public has had an opportunity to review and comment on the inventory results, the Telephone Gap Project must not proceed.

D. The GMNF's two-class system of roadless area management is arbitrary.

The Forest Service acknowledges that "[t]here are approximately 2,568 acres proposed for harvest within the Pittenden Inventoried Roadless Area (IRA)." NOPA at 41. This 16,155-acre IRA is the second largest on the GMNF and one of the largest unprotected wildlands in the

[57] *Id*.

state of Vermont. The Forest Service argues that, because this IRA was inventoried during the 2006 Forest Plan revision, after the promulgation of the 2001 Roadless Area Conservation Rule (RACR), it has full discretion to conduct logging activities so long as it does not harvest more than 20% of the IRA using even-aged management, and it may use temporary roads to facilitate timber sales. *See id*. at 40–41.

The NOPA suggests that the proposed logging will not disqualify the area from future consideration in a Chapter 70 Wilderness Inventory and Evaluation when the GMNF Forest Plan is revised. *See id.* at 40 (noting "[t]hresholds to limit impacts to the undeveloped character of the [IRA]"). However, this merely addresses the *eligibility* of the lands for Chapter 70 review; it does not account for how logging will impact the landscape's suitability or potential for a wilderness recommendation by the Forest Service or designation by Congress, nor how the proposed logging will degrade wilderness character and other values associated with roadless areas, including clean water, intact forest habitats, and more.[58]

The decision to build roads and conduct timber harvests inside of the Pittenden IRA is a recurring theme for the Forest Service, which seems committed to degrading roadless area values on the GMNF inside of post-2001 RACR Inventoried Roadless Areas. Recent projects across the GMNF have all taken aim at IRAs using the same arbitrary logic. Although these areas were each inventoried according to the same criteria used to inventory IRAs protected by the RACR, the Forest Service refuses to add these "Forest Plan IRAs" to the official RACR map. This has created a two-class system whereby the Forest Service only affords protection to IRAs if they are recommended for Wilderness designation by Congress. Such a binary evaluation process ensures

[58] *See generally,* Matthew S. Dietz et al., *The importance of U.S. national forest roadless areas for vulnerable wildlife species*, GLOB. ECOLOGY & CONSERVATION, December 2021 (attached as Exhibit 36); McKinley J. Talty et al., *Conservation value of national forest roadless areas*, CONSERVATION SCI. & PRAC., November 2020 (attached as Exhibit 37).

that IRA character and values will continue to degrade across the landscape, despite their overwhelming value as intact forest landscapes. Instead, the Forest Service should propose to add its Forest Plan IRAs to the Roadless Rule map, and conduct a Forest Plan amendment to protect all existing IRAs under Management Areas that will protect their unique qualities.

E. The Forest Service should reconsider this project as it did when withdrawing the Flat Country Project.

Recently, the Forest Service has recognized that current scientific standards and EOs 14072 and 14008 require it to re-examine projects that it might otherwise have approved. The Forest Service's decision to withdraw the Flat Country Project in Oregon is instructive here.[59] The Flat Country Project was a proposed project within the Willamette National Forest in Oregon, extending between Mount Scott and the McKenzie River.[60] The Flat County Project included commercial harvest of around 5,000 acres and regeneration of an additional 960 acres within the total 74,000- acre project area.[61] The proposed treatment area was composed of stands that ranged from 29 to 150 years old.[62] The Regional Forester of the Pacific Northwest Region originally entered a Record of Decision for the Flat Country Project in January 2021. The Regional Forester withdrew this Record of Decision after a regional review determined that, even though the Record of Decision was consistent with the Northwest Forest Plan ("NWFP"), it was inconsistent with EO 14008 and EO 14072 and "climate-related plans concerning conservation of mature and old-growth forests and carbon stewardship."[63]

---

[59] *Flat Country Regional Review*, USFS, https://www.fs.usda.gov/detail/r6/landmanagement/planning/?cid=fseprd1080564 (last visited Mar. 9, 2023) (hereinafter "Flat Country Regional Review").
[60] Notice of Intent to Prepare an Environmental Impact Statement, 83 Fed. Reg. 42,105 (Aug. 20, 2018) (attached as Exhibit 38).
[61] *Id.*
[62] *Id*. at 42,106.
[63] Flat Country Regional Review.

Prior to withdrawing the decision, the Regional Forester formed an "interdisciplinary review team" to review the Willamette National Forest's Flat Country project final EIS.[64] The review team was comprised of six members from the Pacific Northwest Region and the Pacific Northwest Research Station.[65] The review team created a report comparing the EIS to "New Policies related to Conservation of Mature and Old-growth Forests and Climate Change," which included the executive orders and USDA Secretary's Memorandum 1077-004.[66] The ways that the Flat Country Project are most similar to the Telephone Gap Project, and which are addressed by the review team's report, are the method for identifying stand age composition and plans to thin in mature forests.

First, both the Flat Country Project and the Telephone Gap Project do not use the most comprehensive definition of "old growth." The Flat Country Report states that:

> Because some stands develop old-growth characteristics at a faster or slower rate depending on productivity and biological legacies from the last disturbance (e.g. remnant trees, snags, dead wood), definitions that focus on ecological and structural variables may differ in the classification of mature and old-growth forests compared to stand age."[67]

The report finds that because the Forest Service is using an "age-based" definition, the Flat Country project aligns with the goals of the general conservation of old-growth forests policy.[68] However, the report continues that the use of such a definition does not capture stands that could be considered old-growth based on structural characteristics and are not technically considered old-growth because the stands are younger than 180 years old.[69] Similarly, the Telephone Gap

---

[64] *Id*.
[65] *Id*.
[66] *See generally*, USFS, FLAT COUNTRY PROJECT REVIEW REPORT, at 3 (Sept. 27, 2022), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1080562.pdf (hereinafter "Flat Country Report").
[67] *Id*. at 9.
[68] *Id*.
[69] *Id*.

Project relies on age classifications within the project area based on inventory data established in the 17-year-old Forest Plan. NOPA at 7. These age classifications may not still be correct when updated to reflect actual compositions in 2023; and further, they do not take into consideration the structural characteristics that the Flat Country Project Report anticipated as a part of the developing mature forest conservation policies.

Second, both projects intend to thin in mature forests despite uncertain science on the impacts. The Flat Country Report states that:

> [T]he NWFP Science Synthesis notes that there is uncertainty about the potential benefits of thinning treatments in mature moist forests, like those in the Flat Country project area. This reflects a lack of research on thinning in mature moist forests to develop old-growth characteristics, which ultimately reflects the relatively limited amount of thinning that has occurred in these mature moist forests in the NWFP area. The NWFP Science Synthesis indicates that additional research and adaptive management trials are needed on this topic (NWFP Science Synthesis).[70]

The report further found that the actions of thinning in the Flat Country Project were consistent with the NWFP, but that the NWFP's primary objective for management is not the development of old-growth forests.[71] While the Flat Country Project planned to thin in young and mature forests, the Telephone Gap Project plans on thinning in areas that contain 61% and 26% of mature and old forests, respectively. NOPA at 9. Therefore, the NOPA does not adequately address the impacts that thinning mature and old forests will have on conserving these forests and restoring old-growth.

If the Telephone Gap Project includes or has the purpose to regenerate younger age classes, this is inconsistent with the Executive Orders as demonstrated by the Flat Country Project. The Forest Service found for the Flat Country Project that "[t]he intent of the treatments

[70] *Id*. at 10.
[71] *Id*. at 11

to regenerate younger age classes suggests that the treatments would negatively affect mature forest characteristics at the stand scale and limit the potential for these stands to develop into old-growth forests in the near-term."[72] The Flat Country Project included mitigation measures to reduce the negative impact on mature and old-growth forests, such as maintaining biological legacies that "provide continuity and late seral structural through early seral stages of development."[73] This mitigation measure demonstrates the ecological importance of maintaining mature and old-growth forests, and that the Telephone Gap Project should not manage the forest to generate younger age classes instead of managing to allow mature forests to develop into old-growth forests.

Carbon stewardship was also a concern for the Flat Country Project. In response to Executive Order 14008, the Forest Service released its own Climate Adaption Plan, which addressed carbon stewardship.[74] Carbon stewardship is described as "optimiz[ing] carbon within the context of ecosystem integrity and climate adaptation."[75] USDA Secretary's Memorandum 1077-004, Climate Resilience and Carbon Stewardship of America's National Forests and Grasslands, further directed agencies to "carry out immediate actions to accelerate climate resilience and carbon stewardship."[76] There were two concerns regarding carbon stewardship in the Flat Country Project that the Forest Service should analyze and address for the Telephone Gap Project.

The first concern was the "uncertainty" of the topic.[77] The CEQ is updating its NEPA guidance to incorporate carbon stewardship and the Forest Service is developing carbon

[72] *Id*. at 12.
[73] *Id*.
[74] *Id*. at 4.
[75] *Id*. at 5.
[76] *Id*. at 7.
[77] *Id*. at 14.

stewardship recommendations. This forthcoming guidance is generating uncertainty because agency action could quickly become inconsistent once the guidance is released.[78]

The second concern was that the Forest Service relied on data from drier forests to support its decision where the Flat Country Project is located in a moist forest.[79] The experts noted that there are tradeoffs that occur between managing forests to maximize carbon storage and management efforts to create early successional habitat in drier forests.[80] While carbon stewardship does not require that the agency action results in maximum carbon storage, the Forest Service here should consider what the trade-offs are specific to the Telephone Gap Project and whether it is an appropriate balance between management for other uses and carbon stewardship. However, it is unlikely that managing for early successional habitat could be proven to be an appropriate trade-off, as this comment addresses.

Considering the stark similarities in age composition in both the Flat Country Project and the Telephone Gap Project, the Forest Service should reconsider the project as was done for the Flat Country Project to ensure consistency with newer policies addressing mature forest conservation.

IV. The Forest Service failed to adequately consider CEQ's recently issued Interim Guidance on Greenhouse Gas Emissions and Climate Change.

The Council on Environmental Quality ("CEQ") issued Interim Guidance "National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change" on January 9, 2023, for agencies to "make use of [] immediately."[81] The CEQ issued this guidance due to both the urgency of the climate crisis and the important role that

[78] *Id*.
[79] *Id*.
[80] *Id*.
[81] NEPA Climate Guidance, 88 Fed. Reg. at 1196.

NEPA plays in generating critical information for decision-makers and the public to rely on.[82] The Guidance recommends that NEPA reviews quantify a proposed action's greenhouse gas (GHG) emissions, place GHG emissions in the appropriate context, disclose relevant GHG emissions and climate impacts, and identify alternatives and mitigation measures to avoid or reduce GHG emissions.[83] The Guidance's main emphasis is to ensure that Federal actions are considering climate change on both sides of the coin: (1) how Federal actions will exacerbate climate change and (2) how climate change can impact Federal actions.[84]

This Guidance is highly relevant to the Telephone Gap Project. As proposed, the Project will reduce the amount of carbon stored in the GMNF and exacerbate the changing climate. The Guidance makes it clear that projects like this one can have a substantial impact on GHG emissions and emphasizes the importance of having "[f]ederal leadership that is informed by sound analysis" because it "is crucial to addressing the climate crisis."[85] The need for informed and sound analysis illustrates the importance of considering GHG emissions during the NEPA process as "[c]limate change is a fundamental environmental issue, and its effects on the human environmental fall squarely within NEPA's purview."[86] At the core of this Guidance is that when NEPA reviews consider the reasonably foreseeable effects of climate change they ensure "decisions are based on the best available science and account for the urgency of the climate crisis."[87] However, the Telephone Gap Project is inconsistent with this Guidance as it does not take into account the urgency of the climate crisis and does not rely on the best available science.

A. The Proposed Action does not consider the change to GHG emissions in the context of climate change.

[82] *Id*. at 1197.
[83] *Id*.
[84] *Id*.
[85] *Id*.
[86] *Id*.
[87] *Id*.

The Forest Service has acknowledged the growing importance of GMNF for carbon storage by noting that forest carbon stocks on the GMNF increased 48 percent from 1990 to 2013. NOPA at 42. However, the Forest Service plainly states that "[t]he timber harvesting proposed within the project area is not anticipated to have substantial impacts to existing forest-wide carbon stocks." *Id*. There are several issues with this lack of analysis.

First, the Forest Service relies on a GMNF forest-wide Carbon Assessment, but this assessment uses information that is already out of date, does not consider the site-specific impacts of the Telephone Gap harvesting.[88] The Forest Service should conduct additional analysis that considers the impacts on carbon storage from this proposed action, and not rely on general studies that are not specific to the project area.

Second, the same Carbon Assessment notes that "[t]imber harvesting has been the dominant disturbance type in the forest. However, harvests have been relatively small, typically affecting less than 0.25 percent of forested area annually."[89] But the Telephone Gap Project, like other recently-approved projects such as the Robinson Integrated Resource Project, Somerset Integrated Resource Project, and Early Successional Habitat Creation Project, appears to be a much larger project than the Carbon Assessment has found typical; therefore, there is a high potential to release large amounts of carbon via the harvesting proposed in the project.

Third, the CEQ Guidance instructs that "NEPA requires more than a statement that emissions from a proposed Federal action or its alternatives represent only a small fraction of global or domestic emissions."[90] Such a conclusion lacks any analysis and "does not reveal anything beyond the nature of the climate change challenge itself – the fact that diverse

[88] *See generally* ALEXA DUGAN ET AL., FOREST CARBON ASSESSMENT FOR THE GREEN MOUNTAIN NATIONAL FOREST (2019) (attached as Exhibit 39).
[89] *Id*. at 19.
[90] NEPA Climate Guidance, 88 Fed. Reg. at 1201.

individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect."[91] Therefore, the fact that the contribution of carbon from this project may be considered minimal by the Forest Service is not a thorough enough analysis to consider its overall contribution to climate change.

Fourth, the Forest Service's analysis of carbon has relied heavily on the ability of younger trees to grow and rapidly capture carbon, NOPA at 42, C-1 (relying on Table C-3); however, focusing on generating younger trees to capture carbon while cutting down mature trees to achieve that goal fails to consider the carbon emissions released by harvesting older trees. The Guidance specifically notes that "for the purposes of this guidance, 'emissions' includes release of stored GHGs as a result of land management activities affecting terrestrial GHG pools such as carbon stocks in forests and soils, as well as actions that affect the future of changes in carbon stocks."[92] Therefore, the Forest Service must consider the potential gain of storing carbon through generating younger trees in the context of the loss of storage that will occur by harvesting older trees.

Fifth, the Forest Service did not quantify the reasonably foreseeable GHG emissions for the Telephone Gap Project or place those emissions in the appropriate context to analyze the proposed action's reasonably foreseeable climate effects. The Guidance recommends agencies quantify both the foreseeable gross GHG emission increases and reductions for the proposed action, no action alternative, and any reasonable alternatives.[93] The Forest Service should conduct this analysis and consider it when deciding between this project and the other alternatives. Further, the Guidance recommends that agencies explain how the proposed action

[91] *Id*.
[92] *Id*. at 1197, n. 1.
[93] *Id*. at 1201.

will contribute to or detract from meeting relevant climate action goals and commitments, including state, regional, Tribal, and international goals.[94] The Forest Service should also include an assessment of how this Project impacts the progress towards relevant climate goals.

B. The Forest Service does not rely on the best available science when assessing the impacts of the Project, which is inconsistent with CEQ's Interim Guidance.

The Forest Service should follow the directive to take the best available science into consideration for the Telephone Gap Project. Thus far, the Forest Service has failed to consider more current science, as is cited in this comment, and which is available to the Forest Service for review. It is critical for accurate and clear climate change analysis to rely on the best available science to ensure that decision-makers, stakeholders, and the public can identify and assess the options to reduce GHG emissions and climate change effects.[95] There are several circumstances in which the Forest Service should incorporate more reliable science in its analysis.

First, the Forest Service should rely on the available science to explain the "real-world effects" of the proposed action that will contribute to climate change.[96] The Interim Guidance specifically states that "[a]gencies should use the best available information, including scenarios and climate modeling information that are most relevant to a proposed action."[97] Here, the Forest Service has explained why it believes that these actions will make the forest itself more climate resilient, but it has not addressed the other real-world effects, such as "sea-level rise, temperature changes, ocean acidity, and more frequent and severe wildfires and drought, and human health effects," which this proposed action will contribute to and exacerbate.[98] Furthermore, the D.C. Circuit Court of Appeals has noted that "[r]easonable forecasting and speculation is thus implicit

[94] *Id*. at 1203.
[95] *Id*. at 1197.
[96] *Id*. at 1203.
[97] *Id*.
[98] *Id*.

in NEPA, and we must reject any attempt by agencies to shrink their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.'"[99] Therefore, the Forest Service cannot rely on the idea that it is too hard to forecast to attempt to avoid assessing the climate change impacts.

Second, the CEQ Guidance directs agencies to "confirm that prior studies or programmatic documents were conducted within a reasonable timeframe of the proposed action under consideration such that underlying assumptions are still applicable."[100] The Forest Service has not confirmed that the 2006 Forest Plan directions and goals and Carbon Assessments are still applicable despite how climate problems have accelerated since their development. The Forest Service must review these documents and explain how these documents are still applicable if in fact they are.

Similarly, the Interim Guidance directs agencies to "remain aware of the evolving body of scientific information as more refined estimate of the effects of climate change, both globally and at a localized level, become available. Agencies should use the most up-to-date scientific projects available . . ."[101] The Forest Service cannot avoid this responsibility by relying on the idea that it does not have the resources to conduct its own analyses, as the Interim Guidance simply indicates that "[a]gencies should make decisions using current scientific information and methodologies," and not that agencies should "fund and conduct original climate change research to support their NEPA analyses."[102] Therefore, the Forest Service must ensure that it is relying on the current and best available science when assessing the proposed action and its

[99] *Scientists' Inst. for Pub. Info., Inc. v. AEC*, 481 F.2d 1079, 1092 (D.C. Cir 1973). Other courts have agreed. *See Sierra Club v. FERC*, 867 F.3d 1357, 1374 (D.C. Cir. 2017); *San Juan Citizens All. v. BLM*, 326 F. Supp. 3d 1227, 1241–44 (D.N.M. 2018).
[100] NEPA Climate Guidance, 88 Fed. Reg. at 1210.
[101] *Id*. at 1204.
[102] *Id*. at 1211.

alternatives. Accordingly, the Forest Service should supplement the older science and Forest Plan it has previously cited or explain why it will not do so.

V. The Forest Service Fails to Address Impacts to Several Uses of the GMNF as Required by the GMNF Forest Plan

The GMNF Forest Plan governs what the Forest Service is allowed to do and what it is required to consider when it undertakes new projects like the Telephone Gap Project. In its implementation, the Forest Plan requires the Forest Service to make various site-specific assessments of compliance with its numerous standards, guidelines, goals, and objectives. *See* Forest Plan at 4–6. As discussed below, the Forest Service's scoping documents fail on several fronts to provide enough information for the public to gauge whether the Telephone Gap Project will violate the Forest Plan. Given the vast scope of destructive logging proposed as a major part of the Project, such violations appear likely; the Forest Service should assess all of the proposed logging's impacts in light of the specific requirements of the Forest Plan and provide the substance of those assessments to the public.

Among other requirements, the Forest Plan tasks the Forest Service with analyzing the nature of potential impacts on all threatened, endangered, and sensitive species[103] before engaging in any ground-disturbing projects, and prohibits the Forest Service from undertaking activities that "may influence" the natural communities on which they depend unless the actions would support those communities. Forest Plan at 30. More broadly, the Forest Service must comply with numerous standards regarding wildlife in accordance with the Forest Plan section 2.3.7 and overarching goals. *See* Forest Plan at 10 (Goal 2), 27–32. Additionally, the Forest Service must follow all standards and guidelines under the Forest Plan section 2.3.4 ("Timber or

[103] These species include all "federally listed endangered, threatened, or proposed species, Regional Forester's Sensitive Species, and/or habitat for these species." Forest Plan at 30.

Vegetation Management") when undertaking logging projects like the nearly 12,000 acres proposed in the Telephone Gap Project. Forest Plan at 23–25. Likewise, the Forest Service must comply with numerous standards and guidelines when it undertakes activities that will affect recreation, Forest Plan at 34, and that will take place in specific Management Areas within the GMNF—each of which has its own set of standards and guidelines that restrict logging and other activities. *See id*. Ch. 3 (Management Area Direction). Many of these requirements have not been adequately addressed by any of the scoping or pre-scoping documents released regarding the Telephone Gap Project. All of the aforementioned considerations should be included in the Forest Service's EIS and are discussed in more detail below.

A. Discussion of Impacts on TES species

The Forest Service's proposed actions in the Telephone Gap Project include over 20 miles of new trail construction, nearly 12,000 acres of logging, several miles of new road-building, and various other high-impact activities. These planned actions taken as a whole are certain to cause widespread ground disturbances and habitat impacts on vast swaths of forestland within the Project area. In the NOPA, the Forest Service does little more than admit it has responsibilities to protect sensitive biota, and asserts that it will analyze the potential effects of its actions thereon. *See* NOPA at 34–35. Yet at the same time it acknowledges that 24 sensitive plant species and 20 sensitive animal species (including ESA-listed bat species) are known to live in or have habitat within the Project area. NOPA at 34–36, Tbls. 13 & 14.

To comply with the Forest Plan, the Forest Service must go beyond merely asserting compliance. The Forest Plan makes clear that forest management actions should "enhance wildlife and plant habitat conditions," Forest Plan at 9, to "[p]rotect critical habitat and key habitat features upon which federally listed endangered, threatened, proposed species, and Regional Forester's Sensitive Species depend." Forest Plan at 12. The Plan also requires the

Forest Service to implement conservation strategies to protect threatened, endangered and sensitive (TES) species, "maintain or enhance habitat conditions" for TES species with "specific site prescriptions during project development," and conserve other species that do not meet TES criteria. Forest Plan at 12–13. Standing Trees and the Center for Biological Diversity are concerned that the Telephone Gap Project will threaten TES species throughout the project area, including but not limited to the three species of bats which, by the time of project implementation, will all likely be listed under the ESA as endangered: the Indiana Bat, the northern long-eared bat, and the tri-colored Bat. *See* NOPA at 34. The NOPA does not provide enough information to determine where the habitats of these and other TES species are located in relation to the proposed logging, road-building, and other disturbance-causing actions of the Telephone Gap Project. Much more information is needed to adequately assess the likely threats the Project, if carried out, will pose to numerous species of plants and wildlife.

With a hibernaculum nearby and habitat "throughout the project area," the Northern Long-Eared Bat is of particular concern. NOPA at 34. On November 29, 2022, the U.S. Fish and Wildlife Service ("FWS") announced a final rule to reclassify the northern long-eared bat from threatened to endangered and remove the bat's species-specific 4(d) Rule.[104] Effective January 30, 2023, the up-listing of the northern long-eared bat removes its species-specific 4(d) Rule and makes all take of the bat unlawful.[105]

The NOPA mentions this up-listing but does not adequately address how it plans to avoid impacts to the northern long-eared bat and Indiana bat. Specifically with respect to the Indiana bat, numerous GMNF Forest Plan restrictions apply to timber management activities in the forest. Among other things, the Plan requires that "[t]imber harvest shall not take place within

[104] Endangered Species Status for Northern Long-Eared Bat, 87 Fed. Reg. 73,488 (November 30, 2022).
[105] *Id*.

potential Indiana bat maternity roosting habitat or within 3 miles of a known maternity roost site from April 15 through October 30" unless specific protocols have demonstrated the bat's absence. Forest Plan at 28. The Forest Service must demonstrate how it plans to protect these bats and other sensitive species; the NOPA does little more than mention the likely presence of some species. In particular, Standing Trees and the Center for Biological Diversity are concerned that contrary to what the NOPA claims, a sizable portion of the Telephone Gap Project's logging activities appear to be planned within 5 miles of a documented Indiana and northern long-eared bat hibernaculum in Brandon Silver Mine. NOPA at 34. Nowhere do the scoping documents state the precise location of the Brandon Mine. This failure to specify should be corrected and accurate information should be provided to the public before the Forest Service moves forward with the project, which could very well extensively destroy prime bat habitat. Lacking official information, Standing Trees' and the Center for Biological Diversity's best understanding is that Brandon Mine is located at 43.7833°N 73.0245°W, roughly 2 miles from the nearest proposed logging activities, and within 5 miles of nearly half the total acreage of logging planned for the Project, including some stands that will be clearcut. *See* Telephone Gap Project Map 2a (Proposed Timber Harvest Treatments).

The Forest Plan bans timber harvest within 5 miles of a known Indiana bat hibernaculum from April 15 through October 30 except in accordance with "provisions of a Forest Service management plan for that hibernaculum," which must be developed in consultation with state and federal wildlife agencies. Forest Plan at 28. The scoping documents fail to address how these planned logging activities will comply with the management plan requirement and other requirements in the Forest Plan regarding impacts on species habitat. The NOPA merely recognizes that the northern long-eared bat is in the process of being up-listed to "endangered"

status under the ESA, admits that the bat's habitat occurs throughout the project area, and says it will consult with the FWS to assess impacts. NOPA at 34–35.

Much more information is needed if members of the public, including Standing Trees and the Center for Biological Diversity, are to be able to understand how 11,801 acres of logging within recognized northern long-eared bat habitat (much of it within 5 miles of a hibernaculum) is consistent with the Forest Plan, as well as the ESA and all applicable laws and regulations. Also of particular importance here is the removal of the FWS' ESA Section 4(d) Rule that had authorized logging activities in some of the bat's habitat. By finding the bat is "endangered," the FWS made this special rule null and void, meaning that logging in the bat's habitat is subject to the full protective strength of ESA Section 9's take prohibition. The FWS specified in its final rule up-listing the bat that "[m]any of the actions excepted by the 4(d) rule may actually cause take."[106] Certainly this would include 12,000 acres of logging, as the Telephone Gap Project proposes. In a letter dated February 21, 2023, Standing Trees and the Center for Biological Diversity sent a letter to the USFS Region 9 Regional Forester and GMNF leadership detailing expectations related to protection of northern long-eared bat habitat, per the requirements of the Endangered Species Act. [107]

B. The NOPA Discusses Recreation But Does Not Show How the Telephone Gap Project Would Impact Recreation According to the Requirements of the GMNF Forest Plan

1. Recreation Opportunity Spectrum and Visual Impacts

The NOPA describes how the proposed actions will add certain recreational infrastructure to provide opportunities for the public to access the GMNF, but it fails to address

[106] 87 Fed. Reg. at 73494.
[107] Letter to USFS re NLEB (February 21, 2023), from Standing Trees and Center for Biological Diversity to USFS Region 9 and GMNF leadership, attached as Exhibit 40.

how the planned activities will comport with the Recreation Opportunity Spectrum ("ROS"). The purpose of the ROS is to provide information on what the current status of recreational areas within National Forests are to allow the Forest Service to make informed decisions regarding how to develop recreation areas to the desired settings. Forest Plan at 144. The Forest Plan requires the Forest Service to manage the GMNF "consistent with management area direction and the desired [ROS] class to provide a range of dispersed recreation opportunities, while ensuring the balanced protection of social and natural resources." *Id.* At 34 (Section 2.3.11). Visual quality objectives and developed recreational sites must be managed in accordance with the ROS as well. *See id*. At 35, 37.

The Forest Service must provide more information to the public so that impacts on the ROS class in the management area types within the Project area will be consistent with desired conditions; there is no way to do this without the Forest Service addressing management area-specific ROS goals for the GMNF. For example, the Telephone Gap Project lands include extensive Remote Backcountry Forest and Remote Wildlife Habitat, which are to be managed "towards the desired ROS class of Semi-primitive Non-motorized," *id*. At 54, 60; extensive Diverse Backcountry, which is to be managed toward semi-primitive, motorized ROS class, *id.* At 58; and Research Natural Areas, which are to be managed toward the Primitive ROS class, *id.* At 90. The Forest Service should explain how its planned actions will affect all of these ROS class goals. It is odd that the Forest Service would develop a proposed action to improve recreational opportunities without explaining which areas specific to the proposed action are not yet at the desired usage, in addition to failing to acknowledge what those areas within the proposed action are currently qualified as. Such baseline data is critical for the public to

understand fully the potential recreational impacts of the proposed action, as well as evaluate reasonable alternatives.

In addition, The Forest Service must thoroughly analyze visual impacts from its proposed activities, including its proposed logging, as it relates to compliance with the Scenery Management System and the standards relating to visuals in the 2006 Forest Plan. The NOPA reports an alleged need "to reduce encroaching vegetation to maintain existing vistas and provide new vistas especially along the Appalachian Trail/Long Trail." *See* NOPA at 14. The NOPA then calls for "scenery management treatments at 18 sites to "maintain and enhance viewing opportunities within the project area," and provides descriptions of the treatment in two locations, along the Appalachian Trail/Long Trail, and along the A&D, Bloodroot Gap, Puss N Kill Alternate, and Canty Trails, and South Pond. *Id*. At 29-30. Along the Appalachian Trail/Long Trail, the Forest Service proposes a described treatment of "maintain[ing] and enhanc[ing] four existing vistas along the Appalachian Trail and nine existing vistas along the Long Trail as needed using hand tools and/or chainsaws to remove trees and brush. All cut material would remain on site." *Id.* At 30. Similarly, along the A&D, Bloodroot Gap, Puss N Kill Alternate, and Canty Trails, and South Pond, the Forest Service proposes a described treatment of "maintain[ing] and enhanc[ing] five existing vistas along the snowmobile and hiking trails and at the proposed hut location as needed using hand tools or chainsaws to remove trees and brush. All cut material would remain on site." *Id.*

Nowhere in the NOPA, however, does the Forest Service address visual impacts of its proposed logging activities, nor whether its proposed activities comply with the Scenery Management System, "the overall framework for the orderly inventory, analysis, and management of scenery." *See* 2006 Forest Plan at 149. It also fails to address or clarify how the

NOPA complies with Long National Recreation Management Area Direction for Trail Visuals Standard S-1, which states that the Long National Recreation Management Area "has a Viewer Sensitivity Level of High, and shall be managed following the Forest-wide standards and guidelines for the ROS class of Semi-primitive Non-motorized." *Id*. At 77. This means that the visual condition, as seen from off-site, at more than 0.5 miles, of the Long National Recreation Trail Management Area "appears natural and unchanged by humans to the Casual Forest visitor." *Id.* At 38. Regarding the visual condition on site (within 0.5 mile) and distribution per mile of travel corridor (50 acres) or per 1000 acres of other land, "at least 99% of travel corridor should be retention," meaning "alterations are not visually evident to the casual forest visitor." *Id*. At 155. The Forest Plan only affords that a maximum of 1% of the travel corridor may be permanent partial retention," meaning "alterations made by people must appear subordinate within the surrounding natural appearing landscape." *Id*. The Forest Service must thoroughly analyze what kinds of visual impacts its proposed activities may cause, whether those proposed activities violate the principles of the Scenery Management System, and how it intends to ensure its activities in the Long National Recreation Management Area comply with the stringent protective requirements in the 2006 Forest Plan.

2. GMNF Comprehensive Trail Strategy and Inconsistencies with GMNF Forest Plan

The proposed action states that "[t]here is a need to improve the overall recreation resource within the project area to provide a full range of diverse recreation opportunities." NOPA at 12 (citing to Goal 12 in the Forest Plan). However, the objectives under Forest Plan Goal 12 say nothing of trail development except to call for a "comprehensive trail planning." Forest Plan at 15. Completed in 2015, the Comprehensive Trail Strategy makes several recommendations related to the Telephone Gap project area, as noted in Table 6 below:

Table 6. Comprehensive Trail Strategy recommendations specific to the Telephone Gap project area.

Trail Name	Recommendation
New land acquisition trails	Identified potential need for new trail(s)
New Supervisor's Office trail to connect to Canty Trail	
New trails that connect new/existing trails to federal land or that reduce dependency on car commuting traffic	

NOPA at 13.

The Forest Service notes that it "initiated the Comprehensive Trail Strategy process to provide a foundation for evaluating and making management decisions regarding trails on the GMNF. This document is not a decision document in the context of [NEPA]. Recommendations from the Comprehensive Trail Strategy will be addressed over time through site specific NEPA analysis."[108] As of yet, the proposed action fails to take a hard look at the impacts of proposed recreational infrastructure in the Telephone Gap project area. As evidenced in the table above, the extensive trail construction in the proposed action does not comport with the Forest Plan or the recommendations that came out of the 2015 Comprehensive Trail Strategy, which never contemplated anything on the scale of a third north-south through-trail for mountain bikes, especially one that would pass through IRAs. How will proposed recreational trails and uses impact consideration of the Pittenden IRA in the Chapter 70 Wilderness Inventory and Evaluation process when the GMNF Forest Plan is revised? Finally, a cumulative impacts analysis must be conducted to look at the proposed Velomont trail in its entirety.

3. Proposed South Pond hut inconsistent with 2006 Forest Plan and other policies

[108] USFS, GREEN MOUNTAIN NATIONAL FOREST COMPREHENSIVE TRAIL STRATEGY, at 8 (July 2015), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3847201.pdf.

The proposed South Pond hut is being proposed without considering the cumulative impacts of reasonably foreseeable proposed huts across the GMNF. The Forest Plan makes no mention of the possibility of or desire for hut construction. There has been no analysis of whether new huts priced at $75 to $155 per night, based on the price of the Chittenden Brook hut,[109] is a reasonable or equitable use of public lands; whether the huts are appropriate in any particular management area on the GMNF; or whether huts are appropriate away from developed frontcountry (car-accessible) recreation areas. A decision to construct a hut also commits the GMNF to a management regime that extends beyond the life of the current Forest Plan. Such a weighty decision requires additional analysis in an EA or EIS since it was never considered in the Forest Plan. Rather than allowing private interests to dictate public land management, a better course of action would involve a transparent and collaborative planning process, facilitated by a third party, where the GMNF determines whether and where a hut system is appropriate.

The South Pond hut does not meet criteria for Recreation Rental Cabins in FSH 2309.13-2018 13.3. The Forest Service handbook does not consider the construction of new rental cabins, much less the construction of new rental cabins by private parties for private financial benefit, where the cost of a night's stay is little or no different from a standard rental house offered via a private service like Airbnb or VRBO.

Regarding rental cabins, the Forest Service Handbook states:

13.3 – Recreation Rental Cabins

1. Identify opportunities to preserve and maintain historic buildings under the recreation rental cabin program. Preserve the historic character of recreation rental cabins by selecting appropriate furnishings, restoration materials such as paint color, flooring, and landscaping.

[109] *Chittenden Brook Hut*, VT. HUTS ASS'N, https://vermonthuts.org/huts/chittenden-brook-hut/ (last visited Mar. 9, 2023).

2. Complete a recreation rental cabin feasibility plan for the administrative unit or ranger district.

3. Complete an analysis to address demand, needed capital improvements, and long-term maintenance for recreation rental cabins.

4. Select potential recreation rental cabins that will meet the national quality standards (FSH 2309.13, sec. 53.1- 53.14).

5. Recreation rental cabins must comply with ABAAS.[110]

In the case of the South Pond hut, a new structure is proposed for rent via a private organization. Members of this private organization could have preferential benefits for reserving the cabin. The South Pond hut proposes a new cabin on a site where no similar structures exist; it represents an entirely new use. No information has been provided as to how hut rental income will be distributed, or what (if any) funds will go to the public as payment for use of public lands. Is this a lease? If so, what is the length of the lease? What happens to the hut when the lease runs out or the special use permit is not renewed?

The GMNF must address the cumulative impact of hut construction. The GMNF has already approved several Vermont Hut Association huts. The Vermont Huts Association has indicated a clear desire to construct additional huts in a variety of settings across the GMNF to create a system or network.[111] A Vermont Sports article, dated November 13, 2020, suggests a Vermont Hut Association vision of "30-45 Vermont Huts" (https://vtsports.com/vermont-hut-and-trail-system-wins-526k-grant/). The Vermont Hut Association website reads:

> "Working with representatives from Green Mountain National Forest, Vermont Forests, Parks, and Rec., Rochester/Randolph Area Sports Trail Alliance, Vermont Mountain Bike Association, Green Mountain Club, and the Catamount

[110] USFS, RECREATION SITE HANDBOOK, FSH 2309.13, at 45–46 (2018).
[111] *See Vermont Hut and Trail System Wins $526k Grant*, VT. SPORTS (Nov. 13, 2020) https://vtsports.com/vermont-hut-and-trail-system-wins-526k-grant/ (estimating "30–45 Vermont Huts").

> Trail Association, we will begin to identify approximately 20-30 zones across the state which may host a new hut. Priority will be given to backcountry zones hosting multi-use trails (hiking/mountain biking/skiing) or where trails closely parallel one another and could be connected via a spur trail with the hut located in the middle."[112]

These huts should be reviewed for their cumulative impact in addition to their local impact. So far, each project has been treated as an isolated event. This level of analysis is insufficient under the National Environmental Policy Act. How many of their huts will be built on the GMNF? How many will be proposed for construction in campgrounds? How many in backcountry settings? These are reasonably foreseeable questions the Forest Service must address.

C. Compliance with Forest-Wide Management Directives.

1. Mature and Old Forest

The proposed action involves thousands of acres of logging in mature and old forest stands—including clearcutting and other even-aged (including two-aged) logging practices which are highly damaging to forest ecosystems—yet the NOPA fails to address how such extensive logging is consistent with the Forest Plan's goals for preserving older trees.

Specifically, the Telephone Gap Project proposes logging on 8,760 acres of mature and 2,095 of old forest, including 477 acres over 150 years old and 6,046 acres over 100 years old based on the Forest Service's data. NOPA Tbl. C1a (Harvest Treatments by Age Class). Yet among other forest-wide requirements that should be addressed, the Forest Plan sets an objective to "[m]aintain a full range of age classes from young to old, including late successional and multi-age conditions, within management areas where age class can be actively manipulated toward goals, objectives, and desired future conditions," and to "[a]chieve the desired amounts

[112] *Mapping Out Future*, VT. HUTS ASS'N (last updated Dec. 14, 2017) https://vermonthuts.org/mapping-our-future/.

and distribution of various age classes for different forest types using standard and extended rotation ages whereby . . . [l]ands emphasizing recreation, enhancement of ecological communities, wildlife habitat, or other resource values may be managed to longer rotations" including "[e]xtended [r]otation [a]ges." Forest Plan at 12. The NOPA does not address how logging so much old and mature forest is consistent with these broader forest-wide age class goals.

The NOPA also fails to address how logging so much older forest is consistent with the Forest Plan's stated objective to manage "at least five percent of each ecological type present on the GMNF for old-growth characteristics." Forest Plan at 14. The NOPA admits that "[o]ld growth forest is rare within the GMNF including within the project area." NOPA at 37. It says nothing about the need to promote old growth characteristics anywhere within that project area, however. The Forest Service should address how it plans to support the development of old growth forest in the Telephone Gap Project area through its proposed actions, as required by the Forest Plan. From the information provided, the chances of old and mature forests making it to "old growth" status as the GMNF Plan defines that term, *see* Forest Plan at 140, will only decrease if the extensive logging contemplated in the Telephone Gap Project is executed.

In sum, the Forest Service's scoping documents show a focus on how the Telephone Gap Project will help "achieve desired forest habitat composition and age class objectives," NOPA at 37, but neglect to discuss how such extensive logging is consistent with the Forest Plan. The Forest Plan clearly contemplates protection of old and mature forests, albeit alongside some logging of older stands, and the Forest Service must address the negative impacts on existing old and mature forest that its planned logging will have—not just emphasize how cutting old trees will foster supposedly desirable young ones.

2. Clearcutting

Relatedly, the Forest Service fails to demonstrate how its planned 295 acres of clearcuts, *see* NOPA at C-2, actually meet the Forest Plan's forest-wide requirement for clearcutting. According to the Plan, clearcutting is prohibited unless it is the "optimum method" to achieve specific objectives. Forest Plan at 24 (Application of Even-Aged Silviculture). The Forest Service asserts that its clearcuts planned as part of the Telephone Gap Project will meet this requirement because the method will "generally be applied to regenerate aspen and paper birch stands, stands which have a high risk of dying within the next 10 years, stands which are sparsely stocked, or to create temporary openings to enhance vegetative diversity for deer, grouse, and other wildlife." NOPA at C-2. But this is just parroting some of the language in the Forest Plan's clearcutting standard, *see* Forest Plan at 24, and does not provide any underlying data or scientific rationale, let alone enough information to meaningfully assess whether these clearcuts are "optimal." Thus, Standing Trees, the Center for Biological Diversity, and the rest of the interested public have no way of knowing why, or even if, the proposed clearcutting would be permissible under the Forest Plan.

3. Road Construction

The Forest Service has previously noted in its own analyses that it has already exceeded the level of road construction that was anticipated and permitted by the Forest Plan. The 2006 Forest Plan EIS stated that it expected there to be only a minor potential increase in road development on the entire GMNF, including seven total miles of temporary roads constructed from 2006 to 2015. Forest Plan Final Environmental Impact Statement at 3-349 ("[I]t is expected that changes that could occur in the transportation system would be relatively small. . . the trend

has been little new road development and construction, and that this trend will most likely continue.").

And yet, the Telephone Gap Project continues down the same unlawful path as other recent GMNF projects by proposing to exceed the road construction anticipated in the 2006 Forest Plan. Put simply: the road construction proposed in the Telephone Gap project is inconsistent with the Forest Plan. At a minimum, the Forest Service must analyze the cumulative effects of the increased road construction for all of its projects on the GMNF, including potential impacts to ESA-listed and Regional Forester Sensitive Species, water quality, inventoried roadless areas, and future Ch 70 wilderness inventory and evaluation processes.

D. Compliance with Management Direction for Specific Areas.

The Forest Service's scoping documents include insufficient information on how site-specific logging, roadbuilding, trail construction, infestation prevention, and other "treatments" will comply with the Forest Plan's Management Area (MA) standards and guidelines. The NOPA asserts that all project activities "are designed to comply" with these MA-specific standards and guidelines, NOPA at 5, but the NOPA's actual explanations of how such compliance is assured for the MAs on which discrete actions will be taken are notably lacking. The following comments seek to raise standards and guidelines of particular concern for which the NOPA provides no, or insufficient, explanation of compliance. Beyond what is addressed specifically here, much more information is needed if the Forest Service is to adequately inform the public about how it plans to comply with the Forest Plan's detailed requirements for each MA.

Most of the Telephone Gap Project's proposed logging activities would take place within the Diverse Forest Use, Remote Wildlife Habitat, and Diverse Backcountry MAs. *See* NOPA App'x C, Tbl. C-1. For Diverse Backcountry, the Forest Plan envisions that timber harvest would

be "scattered" across time and space so as to preserve such lands as relatively untouched forest with little evidence of human involvement. Forest Plan at 58. To this end, the Forest Plan admonishes the Forest Service to minimize the frequency and visual impact of cuts, in part through guidelines that require extended rotations, encourage reduced entries for logging actions, and seek to minimize visual impacts. *See id.* at 59, G-1–G-3. Based on the information the Forest Service has provided in its scoping documents, there would be logging on over 6,600 acres out of the total 17,886 acres of Diverse Backcountry within the Telephone Gap Project area—37 percent. NOPA at 4. This includes virtually no logging that meets the standard for "extended rotations." *Id.* at B-1. So much logging at one time in this MA type directly conflicts with the Forest Plan's vision of Diverse Backcountry.

Relatedly, while the Forest Service takes the time to explain how its "intermediate" logging actions will not violate Forest Plan requirements limiting the size of temporary openings in Remote Wildlife Habitat and Diverse Backcountry MAs, NOPA at C-3; *see* Forest Plan at 59, 61, it does not explain how its planned clearcutting and clearcutting with reserves will not create impermissible openings in these MAs. According to the Forest Plan, openings must be 20 acres or less in these MAs. Forest Plan at 59, 61. In Diverse Backcountry, the Telephone Gap Project includes several clearcuts in stands over 20 acres in size, including a mature-aged (89-years-old) 50-acre stand. NOPA App'x C, Tbl. C1 at 5. Many of the opening-creating logging actions appear to be planned at sizes beyond the 20-acre maximum for Diverse Backcountry. *See generally id*. Not only would this violate this specific standard, but this type of heavy-handed logging is also inconsistent with the Forest Plan's visions for the MA as "predominately natural-appearing environment." Forest Plan at 58. A "predominately natural-appearing environment" in a Northern Hardwood forest-type would limit forest openings to irregularly-sized, scattered

patches of .75 acres or less, as would be created through natural gap dynamics driven by wind, ice, and snow events.

In sum, the Forest Service has not given the public the information it needs to meaningfully participate in the process of analyzing the proposed Telephone Gap Project for compliance with the Forest Plan.

VI. The Forest Service Must Thoroughly Analyze Water Quality Impacts from the Proposed Action.

The Telephone Gap Project area contains four Hydrologic Unit Code 12 (HUC12) watersheds: the East Creek and Furnace Brook, both of which drain to Lake Champlain via Otter Creek; and the headwaters of the Ottauquechee and Tweed Rivers, both of which drain in the Connecticut River. *See* Telephone Gap Project Landscape Assessment (July 2021) at 58 (hereinafter "TGIRP Landscape Assessment"). Most rivers and streams in both the project area and Vermont were heavily impacted by past land uses, including the removal of forest and the manipulation of rivers to transport timber and expand farming. *Id.* The project area contains predominantly headwater reaches on NFS lands. As the Forest Service indicated in its Landscape Assessment, "These reaches are benefitting from the age of the forests that surround them. Eighty-five percent of the forest located on NFS lands is 80 years or older. Mature forests provide channel stability, shade, and large wood material." *Id.* Despite the Forest Service's own admission of the numerous benefits of leaving these mature trees near headwaters undisturbed, the Forest Service nonetheless proposes that it revert to the very historical land uses and logging practices that seriously damaged these lands in the first place.

The Forest Service reported in both its Landscape Assessment and its pre-scoping Wetlands, Soils and Aquatics Virtual Public Meeting held on July 27, 2021, that aquatic habitat, soils and wetlands are in "generally" good condition. Upon closer inspection however, and as

reported in greater detail in the TGIRP Landscape Assessment, serious water quality issues and concerns persist in the proposed project area. The unreasonable and unnecessary amount of logging proposed pose serious threats to the project area's stream hydrology, water quality, and in-stream habitat. Accordingly, the Forest Service must thoroughly analyze water quality impacts from its proposed logging as it relates to the phosphorus Total Maximum Daily Load (TMDL) for Lake Champlain, expected increases in stream temperatures, the loss of water retention properties, the ongoing deficit of large woody debris, and ongoing soil erosion.

The Forest Service must thoroughly analyze water quality impacts from its proposed logging as it relates to compliance with the phosphorus TMDL for Lake Champlain as established by the EPA in June 2016.[113] The phosphorus TMDL places a cap on the maximum amount of phosphorus that is allowed to enter Lake Champlain without violating Vermont's water quality standards. The TMDL requires about a 5% reduction in phosphorus from forests in the Otter Creek Basin, which includes lands within the Telephone Gap project area.[114] The State of Vermont has issued "Acceptable Management Practices" (AMPs) for logging projects in Vermont to theoretically reduce phosphorus. The Forest Service must thoroughly analyze whether its proposed logging will comport with Vermont's AMPs and assess how it intends to comply with the TMDL.

The Forest Service also must thoroughly analyze water quality impacts from its proposed logging as it relates to expected increases in stream temperatures due to climate change. Stream temperature has profound effects on stream ecosystems. Even though the Forest Service considers the stream water temperatures in the project area to be currently suitable for cold water habitat, it also reported in its landscape assessment that temperatures in the project have already

[113] Phosphorous TMDLs for Vermont Segments of Lake Champlain (June 17, 2016), attached as Exhibit 41.
[114] *Id.* at Table 8, p. 45.

occasionally exceeded 70º Fahrenheit. *See* TGIRP Landscape Assessment at 62. Prolonged periods of time where water temperature exceed 70º Fahrenheit would result in impacts to cold water species in the area, including the brook trout. *Id.* Ambient air temperatures are expected to increase because of climate change, and an increase in ambient air temperatures would result in an increase in stream water temperatures. Impacts to water quality from climate change would be exacerbated by the extensive logging proposed in the Telephone Gap Project. *Id*.

The Forest Service must also thoroughly analyze water quality impacts from its proposed logging as it relates the loss of water retention properties. The extensive logging proposed by the Forest Service can lead to changes in the amount of water entering streams as well as the timing of these flows.[115] In forested areas, trees take up water from the soil and release it to the atmosphere through transpiration.[116] When trees are logged, less precipitation is taken up by trees and water can move quickly over the land, especially in areas where the soil has been compacted by heavy equipment.[117] During the winter months, snowpacks in logged areas melt more quickly without the shade provided by forests; in the spring, this leads to a higher peak flow occurring during a shorter period of time, and can result in flash flooding.[118] The Forest Service must thoroughly analyze how much of the project area's water retention capability will be lost in light of its proposed logging and assess the flood risk of the lands inside and around the project area.

The Forest Service must also thoroughly analyze water quality impacts from its proposed logging as it relates to the deficit of large woody debris (LWD) in the proposed project area and

---

[115] *See Potential Effects of Forestry on Aquatic Ecosystems, Regional Aquatics Monitoring Program*, http://www.ramp-alberta.org/ resources/forestry/potential+effects.aspx (last visited Mar. 9, 2023).
[116] *Id*.
[117] *Id*.
[118] *Id*.

GMNF as a whole. LWD serves multiple roles in benefitting stream habitat including sediment storage, channel stability, retention of organic material, and habitat structure for fish and aquatic insects. *See* TGIRP Landscape Assessment at 62. As reported by the Forest Service, LWD in the project area and across the GMNF is below the desired amount outlined in the Forest Plan. *Id.* The Telephone Gap Project makes no proposals to address or mitigate this conceded deficit, and instead proposes actions that would actually exacerbate the low amounts of LWD for generations to come, including the logging of mature trees. "Low amounts of LWD will remain an issue until there is enough timber along stream channels at an age where senescence leads to recruitment in the channel." *Id*. The Forest Service must thoroughly analyze how its logging of mature trees in the project area will enlarge the pre-existing deficit of LWD, and specifically for how much longer the proposed logging will delay balancing the deficit of LWD in the proposed project area and GMNF as a whole.

The Forest Service must also thoroughly analyze water quality impacts from its proposed logging as it relates ongoing soil erosion in the project area. The inventory of soils on forested lands in the TGIRP Landscape Assessment found that in general, soils within the project area are productive, with fertile organic and topsoil layers. *Id.* at 65. Importantly, the soils show little to no evidence of erosion or compaction, though some erosion and sedimentation are ongoing on some legacy woods roads, which may be by the illegal use of four-wheel-drive-vehicles, snowmobiles, and all-terrain vehicles (ATVs). *Id*. Nonetheless, almost half, 47 percent, of the approximately 32,745 acres of NFS land within the project area has one or more sensitive soil features, with 26.2 percent of the NFS land within the project area possessing either severe or very severe off-road erosion hazards. *Id.* Despite the abundance of both sensitive soil types and severe or very severe off-road erosion hazards, the Forest Service only proposes management

activities to improve soil conditions by erosion stabilization on "up to" 6.5 miles of existing non-system woods roads, through the project area. *See* NOPA at 23. In light of the extensive logging the Forest Service has proposed, the Forest Service's erosion stabilization proposal may be completely ineffectual, as the amount of proposed logging may cause more erosion than the Forest Service intends to stabilize. The Forest Service must thoroughly analyze the extent and amount of erosion that will result from its proposed logging activities as part of its overall environmental analysis.

VII. The Forest Service Must Analyze the Potential for Spread of Non-Native Invasive Species in the Telephone Gap Project Area.

The Forest Service has an obligation to manage invasive species.[119] The Forest Service has acknowledged the importance of addressing invasive species on several occasions. For example, the Forest Service National Strategic Framework for Invasive Species Management from August of 2013 (hereinafter "2013 Framework") acknowledges that "[i]nvasive species are among the most significant environmental and economic threats facing our Nation's forest, grassland, and aquatic ecosystems."[120] The prevalence of this problem, the issuance of President Clinton's Invasive Species Executive Order 13112 (hereinafter "EO 13112")[121] and President Obama's Executive Order 13751, Safeguarding the Nation From the Impacts of Invasive Species (hereinafter "EO 13751"),[122] and a lack of a comprehensive Forest Service approach to invasive

[119] *See* U.S. FOREST. SERV., FS-1017, FOREST SERVICE NATIONAL STRATEGIC FRAMEWORK FOR INVASIVE SPECIES MANAGEMENT 6 (2013) (hereinafter "2013 Framework") (stating that "[t]he Forest Service is obligated by law, and regulations such as Executive Order 13112, to respond to invasive species that threaten terrestrial and aquatic resources of the National Forest System and to collaborate with Federal, State, and local partners to address invasive species that can spread from adjacent lands.").
[120] *Id*. at 5.
[121] Invasive Species, 64 Fed. Reg. 6183 (Feb. 3, 1999).
[122] 81 Fed. Reg. 88,609 (Dec. 5, 2016). EO 13751 amended EO 13112. The Forest Service's document reference 13112 from 1999 because those documents predate the amending Executive Order. Therefore, references to Forest Service documents will be addressing Executive Order 13112.

species, prompted the Forest Service to develop several documents on how to manage invasive species.

Section 3 of EO 13751 states, in its relevant part that

> "Each Federal agency for which that agency's actions may affect the introduction, establishment, or spread of invasive species shall, to the extent practicable and permitted by law,
>
> (1) identify such agency actions;
>
> (2) subject to the availability of appropriations, and within administrative, budgetary, and jurisdictional limits, use relevant agency programs and authorities to:
>
> (i) prevent the introduction, establishment, and spread of invasive species;
>
> (ii) detect and respond rapidly to eradicate or control populations of invasive species in a manner that is cost-effective and minimizes human, animal, plant, and environmental health risks; . . .
>
> and
>
> (3) refrain from authorizing, funding, or implementing actions that are likely to cause or promote the introduction, establishment, or spread of invasive species in the United States unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions."[123]

In addressing its obligations regarding invasive species, the Forest Service developed the manual FSM 2900 – Invasive Species Management in 2011 which "sets forth National Forest System policy, responsibilities, and direction for the prevention, detection, control, and restoration of effects from aquatic and terrestrial invasive species (including vertebrates, invertebrates, plants, and pathogens)."[124] The Forest Service's request for public comment on FSM 2900 explicitly stated that the purpose of this proposed directive was to address several assessments, which had identified that "the National Forest System lacked a comprehensive policy (Forest Service directive) to provide specific direction to the field on the management of a

[123] EO 13751, 81 Fed. Reg. at 88610–11.

[124] U.S. FOREST. SERV., FSM 2090, INVASIVE SPECIES MANAGEMENT 1 (2011) (hereinafter FSM 2090).

full suite of aquatic and terrestrial invasive species."[125] This lack of a "consolidated stand-alone directive" was identified as a "limiting factor" which "highlighted that the invasive species issue was not well understood" by the agency and further illustrates the importance of the Forest Service abiding by its own policy developed to address this issue.[126]

FSM 2900 states generally that the Forest Service should take actions to prevent and understand the spread of invasive species. Specifically, FSM 2900 advises that "[w]hen applicable, invasive species management actions and standards should be incorporated into resource management plans at the forest level, and in programmatic environmental planning and assessment documents at the regional or national levels."[127] The Forest Service should incorporate its management plans into the Telephone Gap Project environmental analysis documents because the Forest Service notes the presence of multiple invasive species within the project area.

> The TGIRP Landscape Assessment notes that
>
> > [t]wenty [non-native invasive species], or species groups, represented by a total of 151 infestations are documented to occur in the Telephone Gap project area. The most common are non-native honeysuckles, common reed, Japanese knotweed, and wild chervil. Least common are oriental bittersweet, burning bush, and glossy buckthorn. There were also three species reported that are usually not tracked on the GMNF (bull thistle, Canada thistle, and creeping jenny). ***Most infestations are along road or trail edges, and wetland edges. Very few are in habitat interiors***…"

TGIRP Landscape Assessment at 51 (emphasis added). Road construction and timber harvests threaten to worsen existing infestations and introduce non-native invasive species to regions of the Telephone Gap project area where they do not currently exist. Disturbance caused by logging and associated roads and trails can trigger rapid invasive plant population expansion due to

---

[125] *Id*.
[126] *Id*.
[127] FSM 2090, at 11.

increased light, forest floor disturbance, soil compaction, reduced drainage, and changes in soil nutrient content and organic matter.[128]

The 2013 Framework explains that the species management approach is to (1) prevent, (2) detect, (3) control and manage, and (4) restore and rehabilitate.[129] Further, the 2013 Framework notes that this specific approach is "needed for an effective invasive species program," again illustrating the importance of the Forest Service applying this framework to projects where invasive species are prevalent.[130] Here, the Forest Service should provide more information on the invasive species in the project area, the impact that the project actions will have on exacerbating the issue, how the Forest Service plans to address Sec. 2, subpart 3 of Executive Order 13751,[131] and if the Forest Service plans to move forward with this Project, how it plans to incorporate the invasive species management policy to prevent and control the invasive species in the project area.

VIII. The Forest Service Should Conduct Additional Analysis on the Impacts to Historic and Cultural Resources as Required by Regulation and Forest Service Policy.

The Forest Service is legally required to protect cultural sites and historic places.[132] The Forest Service has developed its policy on how to address and incorporate cultural sites and historical places into its analyses and has developed several documents which provide guidance on what should be included in an EA or EIS.

---

[128] Olson, E. et al., *Nonnative invasive plants in the Penobscot Experimental Forest in Maine, USA: Influence of site, silviculture, and land use history*. 138 JOURNAL OF THE TORREY BOTANICAL SOCIETY 4, 453–64 (2011), attached as Exhibit 42.
[129] 2013 Framework, at 7.
[130] *Id.*
[131] EO 13751, 81 Fed. Reg. at 88611 (requiring federal agencies to refrain from implementing actions that are likely to cause or promote the spread of invasive species).
[132] *See* 36 C.F.R. § 800; *see also* U.S. FOREST. SERV., FSM-2300, RECREATION, WILDERNESS, AND RELATED RESOURCE MANAGEMENT (2008).

Forest Service Handbook 1909.17 states that as part of the NEPA analysis, the Forest Service should identify areas of special concern, explicitly listing cultural and historic resources and sites as areas of special concern.[133] Handbook 1909.17 further explains that "[w]hen the social effects of a proposed action may be important to a decision, identify and analyze the appropriate social variables."[134] These variables include: "[c]ustoms and traditions in the affected area," "[r]eligious or subcultural orientations toward certain sites or resources," and "[s]ites of historical, cultural, or scenic value."[135] The Forest Service is expected, based on the relevant variables, to gather social data to inform its decisions that should consider "all affected people," specifically racial or cultural minorities.[136]

Forest Service Handbook 1909.15 states that "[r]eaching a conclusion about the significance of the effects [of an alternative] is critical for the analysis summarized in the EA to support a finding of no significant impact (FONSI)."[137] The Handbook further advises that alternatives should be considered in both context and intensity.[138] There are two factors for intensity that address cultural and historic resources: (1) "[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas" and (2) "[t]he degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources."[139]

---

[133] U.S. FOREST. SERV., FSH 1909.17, ECONOMIC AND SOCIAL ANALYSIS HANDBOOK pdf p.57 (2019).
[134] *Id*. at 61
[135] *Id*. at 62–63.
[136] *Id*. at 63, 70.
[137] U.S. FOREST. SERV., FSH 1909.15, NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK 37 (2012).
[138] *Id*.
[139] *Id*. at 38.

The State of Vermont recognizes several Abenaki communities, including the Elnu Abenaki Tribe, the Nulhegan Abenaki Tribe, Koasek Traditional Band of the Koas Abenaki Nation, and the Abenaki Nation of Missisquoi.[140] Further, the State of Vermont works to protect its "rich cultural, historical, and architectural legacy. This significant heritage manifests itself in the state's ancient Native encampments, agricultural farmsteads with timber-framed barns and rising silos, villages with white-spired churches and town halls marking the valley bottoms and maple-strewn hillsides, downtowns centered on railroad depots and sites of early industrial centers, summer retreats surrounding lakes and ponds, and ski resorts nested on the slopes of the green mountains."[141] Therefore, there is a high potential that there are historic or cultural sites or resources that are located in the project area. The Forest Service must identify and discuss how this action will not frustrate its legal obligations to preserve these resources and its policy on how to manage these resources. For example, the Forest Service should collect social data on the impacts of its proposed action on the cultural and historic resources and how it impacts the affected peoples' customs, traditions, and religion.

IX. The Forest Service Must Complete A Thorough Cumulative Impacts Analysis.

In addition to analyzing direct and indirect effects, NEPA and CEQ's regulations require the Forest Service to consider the cumulative impacts of the Telephone Gap Project. *See* 40 CFR §§ 1502.16, 1508.1(g)(3). A lawful cumulative impacts analysis includes consideration of "the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non–Federal) or person undertakes such other actions." *Id.* § 1508.1(g)(3). "Cumulative effects can result from

[140] *Cultural Resources*, VERMONT COMMISSION ON NATIVE AMERICAN AFFAIRS, https://vcnaa.vermont.gov/cultural-resources#:~:text=Elnu%20Abenaki%20Tribe,Abenaki%20Nation%20of%20Missisquoi (last visited Mar. 5, 2023).
[141] *Division for Historic Preservation*, STATE OF VERMONT AGENCY OF COMMERCE AND COMMUNITY DEVELOPMENT, https://accd.vermont.gov/historic-preservation (last visited Mar. 6, 2023).

individually minor but collectively significant actions taking place over a period of time." *Id*. While the NOPA generally discusses the environmental effects of the Telephone Gap Project, there is no specific mention or discussion of cumulative effects or how the Forest Service intends to identify "past, present, and reasonably foreseeable future actions" to analyze with the proposed action. At a minimum, the NOPA should have contained the "past, present, and reasonably foreseeable future actions" of which the Forest Service is currently aware so the public can evaluate that information during the scoping phase. Regardless, at the EA/EIS phase, a proper consideration of cumulative effects "must be more than perfunctory" and "requires some quantified or detailed information." *Killgore v. SpecPro Pro. Servs.*, LLC, 51 F.4th 973, 989 (9th Cir. 2022) (citing *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 993–94 (9th Cir. 2004)). "General statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Klamath-Siskiyou*, 387 F.3d at 993 (quotations and citations omitted). In *Klamath-Siskiyou*, the Ninth Circuit Court of Appels reversed grant of summary judgment in a NEPA action challenging timber sales because the Bureau of Land Management's EAs gave only "generalized conclusory statements" about cumulative effects of proposed sales. *Id.* at 996.

A. The Forest Service must consider the cumulative impacts of the recent increase in logging projects across GMNF on forest carbon storage.

In EO 14008, President Biden recognized the "profound climate crisis" the world is facing and directed multiple federal agencies to take action. Specifically, recognizing the importance of forests for carbon storage, President Biden directed the Secretary of Agriculture to initiate efforts to help conserve at least 30 percent of our lands and waters by 2030. This

direction recognized the need for "climate-smart . . . forestry practices" that reduce and sequester carbon.[142]

The Forest Service can comply with this Executive Order and its obligations under NEPA by including in an EIS an analysis of the cumulative impacts of the Telephone Gap Project when examined in conjunction with the recent increase in logging in GMNF. In only the last six years the Forest Service has approved logging in areas totaling 10% of GMNF's total area. The Forest Service must analyze these past logging projects, as well as any that were previously approved and still currently ongoing, under its obligation to consider cumulative effects of the proposed action, including "past [and] present" actions. *See* 40 C.F.R. § 1508.1(g)(3). Considered in the aggregate, the loss of forest carbon (including the immediate release of carbon at the logging site, carbon lost during processing, manufacturing, or burning, accounting for end-uses of wood products, and forgone carbon storage due to harvest), resulting from these projects is likely significant. The Forest Service must therefore analyze the cumulative impacts of these projects in conjunction with the impacts of the proposed action in order to comply with CEQ regulations and EO 14008.

As discussed above, new CEQ interim guidance emphasizes the importance of the cumulative effects analysis with respect to GHG emissions, calling the climate effects analysis "inherently cumulative in nature."[143] The guidance instructs that such analysis can "be accomplished by quantifying GHG emissions and providing context for understanding their effects . . ."[144] Some examples of such quantification are "monetizing climate damages using estimates of the SC-GHG [social cost of GHG], placing those damages in the context of relevant

[142] EO 14008, 88 Fed. Reg. at 7627.
[143] *See* CEQ Interim Guidance, 88 Feg. Reg. at 1206.
[144] *Id*.

climate action goals and commitments, and summarizing and citing to available scientific literature to help explain real world effects."[145] The Forest Service must complete such a detailed, quantitative analysis of the proposed project's GHG emissions along with GHG emissions from past, present and reasonably foreseeable projects as part of its environmental analysis in order to satisfy CEQ regulations and guidance.

B. The Forest Service must consider the cumulative impacts of increased logging projects across GMNF on habitat degradation and fragmentation.

Many of New England's native fish and wildlife species, including those that are often most imperiled, such as the northern long-eared bat, pine marten, brook trout, Blackburnian and Cerulean warblers, scarlet tanagers, and wood thrush, depend on large, unfragmented landscapes and structurally-complex old forests for suitable habitat.[146,147] Mature, unfragmented, interior forests are rare in New England overall, making the GMNF an important concentration of such habitat within the state of Vermont and a critical forested landscape in the context of the broader New England-Adirondack region. When this habitat is fragmented or degraded, such as through road construction and logging projects, these species experience increased threats from interactions with humans, predation, changes in microclimates, the spread of invasive species, and other fragmentation and edge effects.

One of the objectives of the proposed action's timber harvest treatments is to increase "the amount of regenerating/early successional habitat class." NOPA at 10, 19, C-1. However, the concept of managing for early successional habitat is itself fundamentally flawed. The definitive study on disturbance regimes in the Northeastern U.S. suggests that early successional

[145] *Id*.
[146] Zaino et al. (2018).
[147] "The Critical Importance of Large Expanses of Continuous Forest for Bird Conservation," Askins (2015), attached as Exhibit 43.

forests historically only covered 1-3% of the Northern Hardwood forest, of which the Telephone Gap Project is a part.[148] Early successional habitat in New England is created every day with logging operations on private lands, and it is widespread in locations such as abandoned fields and powerline or pipeline rights-of-way. Cutting down interior mature forests that are well on their way towards achieving the characteristics of old forests is a grave mistake when old forests – historically the dominant forest type across most of northern New England – are functionally absent from the landscape.[149] The NOPA is silent regarding the cumulative effects on habitat degradation and fragmentation of the proposed action when analyzed with other "Federal or non-Federal" actions in and around the project area where early successional habitat has already been created or it is reasonably foreseeable that it will be created in the future, including through natural processes. The Forest Service must thoroughly analyze these cumulative effects at the EA/EIS stage, and must examine these effects in a broad geographic scope given the ecological importance of the GMNF's relatively unfragmented habitat.

C. The Forest Service must consider the cumulative impacts of future maintenance of the Telephone Gap Project.

The Forest Service must disclose whether it will reenter the timber harvest areas and maintain the early successional habitat that is being created or perform other management actions utilizing roads that will be built as part of this project, or whether the Forest Service will need to target new areas on the GMNF to maintain this condition with additional road building. The NOPA is far too vague about potential activities that would occur on reconstructed Forest Service roads after their use for the proposed project saying only the Forest Service would need "to perpetuate the road to facilitate future management activities." NOPA at 30. This is the type

[148] Lorimer and White (2003).
[149] Zaino et al. (2018).

of "perfunctory" descriptions without "quantified or detailed information" that courts have found insufficient when analyzing reasonably foreseeable future cumulative impacts. *Killgore*, 51 F.4th at 989.

X. The NOPA Fails to Provide Supporting Documentation to Allow Adequate and Meaningful Public Participation

Public participation is a critical aspect of the NEPA process. *See* 40 C.F.R. § 1500.1(b) ("The purpose and function of NEPA is satisfied if Federal agencies have considered relevant environmental information, and the public has been informed regarding the decision-making process."); 40 C.F.R. § 1506.6(a) ("Agencies shall . . . [m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures.").

Here, public involvement has been impeded by the unavailability of relevant supporting documents, the failure of the NOPA to clearly identify other supporting documents, and the failure to include sufficient detail throughout the NOPA to allow the public to engage the necessary substantive analysis underlying the agency's design of the Proposed action and its intended goals.

For example, until it was posted on February 22, 2023, at the request of the public, the "Telephone Gap Integrated Resource Project Habitat Management Unit Analysis & Rationale for Habitat Objectives" (January 2023) was not provided to the public for review. This document is being used to justify a massive experiment in ecological engineering, whereby the GMNF is proposing to shift the composition of lands identified as suitable for timber harvest in the Forest Plan to a significantly larger proportion of softwoods compared to current tree species composition, which is dominated by hardwoods (93%). Without this material, the public has been left to guess about the Forest Service's justification for such a radical proposition. Regardless, the Forest Service must produce more information in an EIS to show how it came to

such a radical conclusion about the need to shift tree species composition. On its face, the HMU analysis document doesn't appear to meet the latest scientific standards to justify its conclusions or to justify the project, and also appears to be inconsistent with the 2006 Forest Plan.

XI. The Project, as Proposed, Is "Significant" and Requires An EIS.

NEPA requires that federal agencies prepare an EIS for projects that are likely to have significant effects. 40 CFR § 1501.3(a)(3). In determining whether the effects of the proposed action are likely to be significant, agencies are to consider (1) both short- *and long-term effects*; (2) Both beneficial and *adverse effects*; (3) Effects on public health and safety, and (4) effects that would violate Federal, State, Tribal, or local law protecting the environment. *Id.* § 1501.3(b)(2) (emphasis added). In making the significance determination, agencies are also to consider connected actions. *Id*. § 1501.3(b). Moreover, "significance varies with the setting of the proposed action" and "in the case of a site-specific action, significance would usually depend only upon the effects in the local area." *Id.* § 1501.3(b)(1).

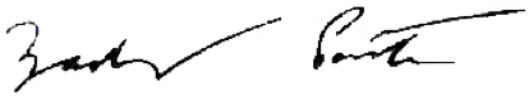
For the reasons stated above, Standing Trees and the Center for Biological Diversity believe there are many good reasons why this project should be withdrawn. If the Forest Service intends to move forward with the proposed project, it must only do so after preparing an EIS. This is a multi-phase, 5–10 year proposed action that is significantly affecting the environment, regardless of whether those effects are considered beneficial or detrimental. First, the proposed action is likely to have both short- and long-term effects because of its expansive scope and size. Logging will have a severe negative impact on the northern long-eared bat if that species and/or its habitat are found in the proposed action area. Second, the proposed action is likely to contribute to the loss of climate benefits of retaining older, mature trees due to the proposed logging. Third, detrimental impacts to water quality are likely due to runoff, sedimentation, and

potential herbicide contamination due to the proposed whole tree removal. Fourth, the proposed action is likely to cause loss or damage to historic and cultural resources located within the proposed action area. For these and other reasons discussed in this comment, the size, scope and significance of the Forest Service's proposed action mandates the need for the Forest Service to prepare an EIS instead of an EA.

Conclusion

NEPA requires that agencies fully evaluate and understand the potential environmental impacts of proposed actions before committing to a specific course of action. In order to fulfill this duty, Standing Trees and the Center for Biological Diversity ask that the Forest Service thoroughly analyze all concerns and recommendations raised above. If the Forest Service proceeds with this ill-conceived project, Standing Trees and the Center for Biological Diversity will review and comment on its environmental analysis when that is made publicly available.

Sincerely,



Zack Porter
Executive Director, Standing Trees
Montpelier, VT
zporter@standingtrees.org
(802) 552-0160

Edward B. (Ted) Zukoski
Senior Attorney, Center for Biological Diversity
1536 Wynkoop Street, Suite 421
Denver, CO 80202
(cell) (303) 641-3149
tzukoski@biologicaldiversity.org