January 17, 2025

John Sinclair, Reviewing Officer
Attn: EPS Objections
Suite 800
USDA Forest Service, Eastern Region
626 East Wisconsin Avenue
Milwaukee, WI 53202

Submitted via: https://www.fs.usda.gov/project/?project=60192 and USPS certified mail

Re: Objection Pursuant to 36 C.F.R. § 218.8 to Telephone Gap Integrated Resource Project, Rochester and Middlebury Ranger Districts, Green Mountain National Forest

Dear Objection Reviewing Officer:

On behalf of Standing Trees, Earthjustice and Earthrise Law Center respectfully file this Objection to the Telephone Gap Integrated Resource Project ("TGIRP") (the "Project") under the process identified in 36 C.F.R. § 218.8. Notice of availability of the Draft Decision Notice ("DDN"), Final Environmental Assessment ("Final EA"), and Finding of No Significant Impact ("FONSI") was published in the newspaper of record, the *Rutland Herald*, on December 3, 2024. This Objection is timely as the deadline to submit objections is January 17, 2025. We submit this Objection via certified U.S. mail and electronically. The certified mail copy includes a thumb drive containing electronic copies of all the exhibits cited below.[1] A list of those exhibits is included at the end of this Objection. Standing Trees respectfully requests a meeting with the objection reviewing officer.

PROJECT

Pursuant to 36 C.F.R. § 218.8(d)(4), we object to the following project:

> *Project*: Telephone Gap Integrated Resource Project, Rutland, Windsor, and Addison Counties, Vermont

[1] The thumb drive also contains electronic copies of all exhibits cited in Standing Trees' March 13, 2023 Scoping Comments ("Scoping Comments") and April 8, 2024 Comments Regarding the Preliminary Environmental Assessment for the Telephone Gap Integrated Resource Project ("Preliminary EA Comments"). Exhibits included in the Scoping Comments are referred to below as "(Scoping Comments Ex __)." Exhibits included in the Preliminary EA Comments are referred to below as "(Preliminary EA Comments Ex __)." New exhibits referenced in this Objection are referred to below as "(Exhibit __)."

Responsible Official and Forest/Ranger District: Christopher Mattrick, District Ranger, Rochester/Middlebury Ranger Districts, Green Mountain National Forest

ELIGIBILITY TO OBJECT

Standing Trees is a grassroots membership organization that works to protect and restore New England's forests, with a focus on state and federal public lands in Vermont and New Hampshire. Standing Trees works to ensure New England's public lands are managed using just and equitable policies and practices to support the region's citizens and natural ecosystems alike. This includes managing public lands and waters to maximize carbon storage and protect clean water, clean air, public health, and intact habitat for the region's native biodiversity. Standing Trees has many members who regularly visit and recreate throughout the Green Mountain National Forest ("GMNF"), including the area impacted by the TGIRP. Earthjustice and Earthrise Law Center of Lewis & Clark Law School represent Standing Trees in this matter and submit this Objection on behalf of Standing Trees.

Standing Trees filed timely, specific, and substantive comments at both the Scoping stage and during the Preliminary Environmental Assessment Comment Period for the TGIRP on March 13, 2023 and April 8, 2024, respectively.[2] Under 36 C.F.R. § 218.8, Standing Trees has standing to file an Objection. All points and issues raised in this Objection refer to issues raised in our Scoping Comments or Preliminary EA Comments or are related to new information, pursuant to 36 C.F.R. § 218.8(c).

LEAD OBJECTOR

Pursuant to 36 C.F.R. § 218.8(d)(3), the "Lead Objector" is:

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INTRODUCTION

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, Canada lynx, and the northern long-eared bat, which was recently uplisted from threatened to endangered under the Endangered Species Act ("ESA"). Nevertheless, the last several years have seen a rapid increase in area logged in the

[2] The Scoping Comments and Preliminary EA Comments are attached as Exhibits 1 and 2, respectively, to this Objection and incorporated by reference.

forest; in only the last nine years, the Forest Service has approved more than 40,000 acres of logging—10% of the GMNF.

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[3] and has the greatest impact on aboveground carbon storage.[4]

The Forest Service's founding motto implores the agency to *manage our public forests for the benefit of the greatest good for the greatest number for the longest time*. The public interest is best served by protecting the old growth and mature forests present in the TGIRP area, and the area's exceptional ecological integrity. The Forest Service has failed to meaningfully engage local stakeholders in project development and ignored the imperative to protect the many intact values of the Project area. The Project is inconsistent with the purpose of the GMNF Plan and threatens forest health, climate resilience, water quality, habitat for imperiled species, and the scenic beauty and recreational opportunities for which this treasured landscape is prized. We next provide the specific reasons for this Objection and our requested remedies, along with related evidence and rationale on why the Project violates applicable laws and regulations.

In light of the considerable harm that the TGIRP would inflict, Standing Trees continues to urge the Forest Service to withdraw the proposed action. If the Project proceeds, the Forest Service must conduct an Environmental Impact Statement ("EIS")—it cannot legally or scientifically justify a finding that this sprawling and damaging project would have no significant impact. And any project that moves forward must undergo significant modifications to reduce its adverse impacts and otherwise comply with the GMNF Plan.

CONCISE STATEMENT OF OBJECTIONS

The TGIRP authorizes various actions such as logging, road construction, prescribed fire treatments, and construction of a new hut in the GMNF. Without meaningful justification and after sidestepping substantive and procedural requirements of federal law, the Forest Service has erroneously decided the TGIRP is needed to implement the management direction in the 2006 GMNF Plan and meet the Plan's goals, objectives, and desired conditions for vegetation, wildlife, and other resources. Standing Trees identifies concerns as raised in our Scoping Comments and Preliminary EA Comments, and issues based on new information that arose after the opportunity to comment closed, pursuant to 36 C.F.R. § 218.8(c), including new sightings of Canada lynx in the Project area.

The Forest Service failed to demonstrate compliance with the National Environmental Policy Act ("NEPA"), National Forest Management Act ("NFMA"), Clean Water Act ("CWA"), Endangered Species Act ("ESA"), and Administrative Procedure Act ("APA"). The DDN,

[3] Brown et al., Timber Harvest as the Predominant Disturbance Regime in Northeastern U.S. Forests: Effects of Harvest Intensification (2018) (Scoping Comments Ex. 1).
[4] Duveneck and Thompson, Social and Biophysical Determinants of Future Forest Conditions in New England: Effects of a Modern Land-use Regime (2019) (Scoping Comments Ex. 2). (hereinafter "Duveneck and Thompson (2019)").

FONSI and Final EA violate specific provisions of NEPA, NFMA, ESA, Council on Environmental Quality ("CEQ") guidance, and recent executive orders. Of particular concern is the Forest Service's continued failure to: (1) take a hard look at impacts on the human environment, especially impacts on mature and old-growth forests and climate; (2) consider reasonable alternatives in detail; (3) use the best available science; (4) consider cumulative impacts; (5) meaningfully engage the public; and (6) adequately consider the Project's impact on two ESA-listed species, the endangered Northern Long-eared Bat ("NLEB") and threatened Canada lynx.

Standing Trees maintains its position that the Forest Service should withdraw the Project as it is currently proposed. Alternatively, before the Forest Service pursues any logging in the Project area, it must cure the manifest errors in the Final EA and FONSI, and given the significance of this Project, prepare an EIS to adequately evaluate the significant impacts posed by the TGIRP. The EIS should develop and consider alternatives that incorporate design features and mitigation as recommended by Standing Trees in its Scoping Comments.[5] Alternatives incorporating those recommendations would protect old growth, mature forests, and roadless areas, improve climate resilience, enhance recreation resources, provide habitat restoration, and protect water quality, while still meeting a great deal of the Project's stated needs and also complying with the GMNF Plan. The Forest Service also should update the GMNF Plan as required under NFMA to clarify and protect the outstanding resource value of the Project area.

[5] Scoping Comments at 14–16.

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OBJECTIONS

I. The Final EA Is Inadequate Under NEPA and the Forest Service Must Conduct New Analysis.

The TGIRP is a major federal action that is likely to significantly affect the quality of the human environment, warranting an Environmental Impact Statement ("EIS") pursuant to 40 C.F.R. § 1502.3.[6] NEPA has "twin aims," imposing on "an agency the obligation to consider every significant aspect of the environmental impact of a proposed action . . . [and] ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision making process."[7] Preparation of an EIS is required when an agency's action *may* have a significant effect on the environment.[8] Over multiple comment periods, the public raised serious and substantiated concerns about the Forest Service's failure to fully evaluate the TGIRP in accordance with NEPA. These concerns went largely unacknowledged and unresponded to by the Forest Service.

Requested Remedy: The Forest Service must complete an EIS for the TGIRP to cure deficiencies in the Final EA and FONSI as outlined in Standing Trees' comments and expanded upon in this Objection.

A. The Forest Service Failed to Take a Hard Look at the TGRIP's Many Significant Impacts.

Under the NEPA, the Forest Service must take a "hard look" at the environmental impacts of its planned action.[9] Yet many of the impacts of the TGIRP evaded hard look review, and many of the Forest Service's conclusions are based on incomplete information. The Service has thereby fallen short of NEPA's standards to "ensure the professional integrity, including scientific integrity, of the discussion and analysis in an environmental document" and to "make use of reliable data and resources."[10]

1. The Forest Service Failed to Take a Hard Look at the TGIRP's Significant Impacts on Mature and Old-Growth Forests.

The Final EA inadequately addresses impacts on mature and old-growth forests. Mature and old-growth forests are powerhouses of climate mitigation, biodiversity protection, water purity, and a host of other ecosystem attributes. On April 22, 2022, President Biden signed Executive Order

[6] *See also* 42 U.S.C. 4332(2)(C). The Council on Environmental Quality ("CEQ") promulgates regulations to implement NEPA that are binding on all federal agencies. Those regulations are found at 40 C.F.R. §§ 1500–1508. Standing Trees is aware of the D.C. Circuit Court of Appeals ruling in *Marin Audubon Society v. Federal Aviation Administration*, 121 F.4th 902, 908 (D.C. Cir. 2024), that held CEQ's NEPA regulations were *ultra vires*. However, that split-panel decision is not binding on the Second Circuit, and thus CEQ's NEPA regulations are still applicable and binding on the Forest Service for the TGIRP.
[7] *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983).
[8] *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 444 F. Supp. 3d 832, 854 (S.D. Ohio 2020) (quoting *Mont. Wilderness Ass'n v. Fry*, 310 F. Supp 2d 1127, 1144 (D. Mont. 2004)).
[9] *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).
[10] 42 U.S.C. § 4332(D)–(E).

14072, directing U.S. Department of Agriculture ("USDA") to address threats to mature and old-growth forests on National Forest System lands.[11] On December 18, 2023, the Forest Service's Deputy Chief issued a letter requiring that he review any projects that would log in areas that meet regional old-growth definitions.[12] The TGIRP would fall far short of protecting mature and old-growth forests and would instead serve a misguided objective of significantly reducing the extent of these valuable forests across the GMNF in favor of the younger forests that would replace them.

Standing Trees extensively discussed the issue of mature and old-growth forest protection in both of its comment letters.[13] Those prior comments included explanations of the extensive scientific support for preserving mature and old-growth trees, why the TGIRP's age class goals are inconsistent with the ecology of New England forests, and why the TGIRP's methods for engineering age classes do not reflect the best available science. These critiques remain relevant to the Final EA and are presented below. But first, these comments explain why the measures in the Final EA that address old growth fail to protect that critical age class. As shown below, it is evident that the Forest Service failed to take a "hard look" at issues relating to mature and old-growth forests, finding of no significant impact is unjustified, and an EIS is required for the Project to proceed.

a. The Forest Service's Claims That No Management Will Occur in Old-Growth Forest Are Inaccurate and Unsubstantiated.

The Forest Service has not acknowledged, much less taken a "hard look," at the TGIRP's effects on old-growth forests. The Forest Service asserts, "No proposed project activities would occur within any forested stands designated as old growth, thus there would be no effect to old growth characteristics within the project area."[14] The Final EA presents multiple definitions of "old" or "old-growth" forest, which leads to confusion about the Service's claims. Taking each definition in turn, it becomes clear that the assertions about no project activities occurring in old-growth forests and no effects accruing to old-growth characteristics are unsubstantiated.

Beginning with the definition of old growth found in the GMNF Plan, the Final EA states, "No old growth forests as defined by the Forest Plan . . . are proposed for harvest."[15] However, the Forest Service recently disclosed information revealing that its designations of areas meeting the

[11] Exec. Order No. 14072 of April 22, 2022, "Strengthening the Nation's Forests, Communities, and Local Economies," 87 Fed. Reg. 24,851, 24,852 § 2(c)(iii) (Apr. 27, 2022).
[12] Land Management Plan Direction for Old-Growth Forest Conditions Across the National Forest System, 88 Fed. Reg. 88,042 (Dec. 20, 2023); Letter from Christopher B. French, Deputy Chief, National Forest System, to Regional Foresters re: "Review of Proposed Projects with Management of Old Growth Forest Conditions" (Dec. 18, 2023), https://www.fs.usda.gov/sites/default/files/ReviewOfProposedProjectsWithManagementOfOldGrowthForestConditions-NFSDC.pdf.
[13] Scoping Comments at 16-25; Preliminary EA Comments at 6-14.
[14] Final EA at 49.
[15] Final EA at 18.

Forest Plan definition of "old growth forest" have not been updated for roughly two decades, making them unlikely to reflect current conditions.

In an email dated December 16, 2024, the Forest Service informed Standing Trees that no areas of old-growth forest have been designated since the publication of the GMNF Plan EIS.[16] In the Forest Plan documents, the Forest Service determined that, out of the Forest's approximately 400,000 total acres, just 737 (0.2%) met the Plan's definition of "old growth."[17] By continuing to rely on those figures, GMNF is working from old growth designations that are at least 21 years old and may be based on even older data. The Forest Plan EIS was published in 2006, and the EIS references a 2004 analysis for its identification of old growth areas.[18] (The EIS does not indicate when the fieldwork for the 2004 analysis was conducted.)

The failure to update the inventory of old growth per the Forest Plan definition to determine whether the Forest Service is conducting management activities in old growth areas is irrational and fails to meet NEPA's "hard look" standard.[19] At most, the Forest Service can say that no areas among the 737 acres that were identified as old growth in the Forest Plan 20 years ago are slated for logging under the TGIRP. But that is very different from the Forest Service's claim in the Final EA that "[n]o old growth forests as *defined* by the Forest Plan . . . are proposed for harvest."[20]

In the Forest Plan EIS, the Forest Service identified more than 40,000 acres at least 120 years old,[21] which would now be 140 years old at minimum (subject to any intervening stand-resetting events). But there is no evidence that the Forest Service has evaluated whether additional areas (beyond the Plan designations) now meet the Plan's definition of old growth. Thus, the Service has offered no credible reason to conclude that not a single additional acre of forest has met the definition of old growth since the Forest Plan was developed.

In the context of the TGIRP, the problem with outdated old growth designations is not merely theoretical. The project would log in 408 stand acres (311 harvest acres) that are at least 150

[16] Email from Jay Strand, GMNF, to Zack Porter, Standing Trees (Dec. 16, 2024, 12:35PM) (Exhibit 3).
[17] *See* GMNF Plan Final EIS, Ch. 3: Affected Environment and Environmental Consequences, at 3-234 tbl. 3.11-2 (Feb. 2006). The Forest Plan defines "old growth forest" as "[a] patch of relatively old forest of at least 5 to 10 acres that has escaped catastrophic or stand-replacing disturbance associated with the prevailing natural disturbance regimes of the Forest. Such old growth stands exhibit a long history of continuity and a demonstrated future via replacement dynamics." GMNF, Land and Resource Management Plan 140 (Feb. 2006).
[18] *See* GMNF Plan Final EIS, Ch. 3: Affected Environment and Environmental Consequences, at 3-234 (citing "Green Mountain National Forest Special Area Assessment" (Burbank 2004)).
[19] 40 C.F.R. § 1501.11(c)(2) (requiring agency to reevaluate the analysis in its programmatic environmental document to ensure it remains valid). Although the D.C. Circuit recently ruled that the White House Council on Environmental Quality lacked authority to issue these regulations implementing NEPA, the regulations were not vacated, and they remain operative in other circuits. *See Marin Audubon Soc'y*, 121 F.4th at 908–15 (*petitions for rehearing en banc pending*).
[20] Final EA at 18 (emphasis added).
[21] *See* GMNF Plan Final EIS, Ch. 3: Affected Environment and Environmental Consequences, at 3-234 tbl. 3.11-2.

years old, including some stands more than 160 years old.[22] Since the TGIRP envisions a 15-year implementation timeline, several stands could be older than 170 years at the time of logging. The Forest Service cannot fall back on old growth identifications from more than two decades ago when determining whether areas meeting the Forest Plan's old growth definition are implicated. It must provide a reasoned basis for concluding that no areas meet that definition today—or will meet that definition in the future at the time of logging.

With such outdated old growth designations, it was arbitrary for the Forest Service to claim, "No proposed project activities would occur within any forested stands designated as old growth, thus there would be no effect to old growth characteristics within the project area."[23] The Forest Service seems to assume—without justification—that old growth characteristics cannot exist in any stand that was not designated as old growth 20 years ago, arbitrarily disregarding that old growth characteristics have likely emerged in other stands over the past two decades. Another flaw in the Service's claim is that old growth characteristics can exist even in stands that do not meet the definition of old growth. For example, the Forest Plan defines "late successional forest[s]" as those that "are either in the process of *or have developed* old growth characteristics."[24] With its unsupported assertion that the TGIRP would not affect old growth characteristics, the Forest Service failed to take a "hard look" at this issue and reached a conclusion that was not based on facts, in violation of NEPA.

Updated old growth designations should encompass all of the "old growth" or "old forest" definitions that appear in the TGIRP, including the Forest Plan definition and the definitions discussed below: State of Vermont-designated "old forests," Forest Service Region 9 old growth, and the methods for identifying stands for "deferred" harvest. The Plan definition of old growth, by its terms, is written broadly enough that it properly includes the other definitions (and more). In the TGIRP, the Forest Service rightly decided to protect all of these forests (except for forests meeting the Region 9 definition, the exclusion of which was arbitrary, as discussed below). In the future, the Forest Service should minimize the confusion created by multiple definitions and acknowledge that all of these forests qualify as old growth under the Forest Plan and designate them accordingly.

While the TGIRP will protect forests meeting the definition of State of Vermont-designated "old forests," that does not absolve the Forest Service of its duty to search for old-growth forest and update its old-growth designations per the Forest Plan definition, and it cannot compensate for the Forest Service's disregard for the Region 9 definition. The Final EA asserts that "[n]o . . . Vermont state-designated old forests are proposed for harvest."[25] To be sure, Standing Trees supports protecting state-designated old forests, and the Forest Service was right to do so. But such protection does not answer the question of whether old-growth forest in GMNF is

[22] *See* GMNF, TGIRP Final EA Appendices, at C-19 to -20 tbl. C-2C. In fact, this tally is already outdated because it excludes stands that originated in 1875.
[23] Final EA at 49.
[24] USFS, GMNF Forest Plan at 136 (emphasis added) (hereinafter "GMNF Plan").
[25] Final EA at 18.

sufficiently protected, and the Final EA provides no logical basis for using the state designations as a ceiling for old growth protections. To the contrary, to explain the methodology for designating state "old forest," the Final EA cites a document that was prepared for the purpose of determining whether a parcel of land qualifies for a particular taxation status under state law.[26] That document does not speak to the condition of old growth on the GMNF.

Turning to a third relevant definition, the TGIRP *would* entail logging in forest that meets the USFS Region 9 definition of old growth. (Except where noted, the Region 9 "definition" refers to the set of regional definitions used in the MOG inventory.) Of the three definitions addressed here, the Region 9 definition is the one used most recently to identify old growth in the GMNF, and the Forest Service provided no defensible rationale for logging in the forests it covers. The Region 9 definition was used in response to Executive Order 14072, which directed the USDA to "define, identify, and complete an inventory of old-growth and mature forests," and then to "develop policies . . . that address threats to mature and old-growth forests."[27] After releasing the Preliminary EA, and following a request from Standing Trees, the Forest Service released a chart identifying 817 stand acres (691 harvest acres) of forest meeting the Region 9 old growth definition that would be logged under the TGIRP.[28]

The Forest Service's attempts to dismiss the relevance of this definition ring hollow. The Final EA states:

> The initial mature and old growth forests (MOG) inventory was completed in April 2023 as part of the basis to consider possible policy changes to address climate resiliency that could affect management of these federal lands including GMNF. The MOG inventory does not provide specific locations or acres for mature or old growth at the national forest level. Specific old growth definitions are derived from each National Forest land and resource management plan.[29]

Thus, the Final EA itself acknowledges that a purpose of the MOG inventory was to provide a basis for possible protections of *these* (i.e., the inventoried MOG) federal lands. The claim that the MOG Inventory does not provide precise locations of regionally defined old growth within national forests is moot because, as noted above, the Forest Service has already identified acres within the TGIRP area that meet the regional old growth definition. In fact, the Forest Service used the regional definition to categorize forests during the alternative development process, further demonstrating that the definition is workable and meaningful.[30] While the inventory did

[26] *See* Vermont Agency of Natural Resources, *Clarifications to Old Forest Ecologically Significant Treatment Areas (ESTA) Eligibility in Use Value Appraisal Program* (May 7, 2021) (Exhibit 12), cited at Final EA 42.
[27] Exec. Order No. 14072 § 2(b)-(c).
[28] *See* GMNF, Telephone Gap Project – Proposed late successional forest enhancement treatments for Alternatives C and D (Category 2) (2024) (in stands where Region 9 old growth working definitions were used to help identify late successional forest characteristics).
[29] Final EA at 41 (internal citation omitted).
[30] USFS, Telephone Gap Integrated Resource Project - Alternative Development Process Summary 3 n.3 (Oct. 2023) (citing the regional old growth definition).

not direct specific management decisions, it was expressly developed to identify lands that may warrant special management consideration. In order to satisfy NEPA's "hard look" standard, the Forest Service needed to assess the appropriateness of logging in areas meeting the inventory's definition of old growth, rather than dismissing the relevance of the inventory.

The Forest Service's Washington Office's consideration of old growth within the TGIRP area is further evidence that the Forest Service's analysis was arbitrary and incomplete. In a memo dated December 18, 2023, the Deputy Chief unambiguously mandated extra scrutiny of projects that would log in areas meeting *regional* old growth definitions:

> Effective immediately, any projects proposing vegetation management activities that will occur where old growth forest conditions (*based on regional old-growth definitions*) exist on National Forest System lands shall be submitted to the National Forest System Deputy Chief for review and approval. . . .
>
> I want to ensure the careful evaluation of proposed vegetation management activities occurring in areas where old growth forest conditions exist while [additional protections are] developed.[31]

In this case, the Forest Service fell far short of the clear standard that it set for itself. When the Deputy Chief reviewed the TGIRP, he made no reference to regional old growth definitions. Instead, he stated, "No vegetation management is proposed in forests that have old growth conditions,"[32] in apparent reference to the 737 acres of designated old-growth in the Forest Plan. Nowhere does the Forest Service address the blatant incongruity of requiring review of forest projects based on a clearly articulated factor (the regional definition), only to conduct the review based on an entirely different factor.

In response to comments on this topic, the Forest Service writes:

> The April 2023 Mature and Old Growth Inventory (MOG inventory) required by Executive Order 14072 states: ["]Each national forest and BLM district has a LMP governing its activities. The appropriate set of old-growth forest definitions has been used in developing the plan components for many LMPs["] (MOG inventory, p. 9), thus the definition for old growth forest on the Green Mountain National Forest (GMNF) defaults to the Forest Plan (Forest Plan, Glossary, p. 140).[33]

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[31] Letter from Christopher B. French, Deputy Chief, National Forest System, to Regional Foresters re: Review of Proposed Projects with Management of Old Growth Forest Conditions (Dec. 18, 2023) (emphasis added) (Preliminary EA Comments Ex. 3).
[32] USFS, Review of Proposed Projects with No Management in Old Growth Forest Conditions: Telephone Gap Integrated Resource Project (signed by the Deputy Chief July 17, 2024) (Exhibit 4).
[33] USFS, Consideration of Comments Received for the Telephone Gap Integrated Resource Project Preliminary Environmental Assessment 176 (2024) (hereinafter "Consideration of Comments").

The Forest Service's response conflates two issues: first, which definition of old growth informs Plan components, and second, which definition informs the standard that the Deputy Chief established for his additional layer of review.

b. The TGIRP's Measures for Addressing Older Forests Are Inadequate and Vague.

The Forest Service's chosen alternative (Alternative C) for TGIRP contains modest measures regarding older forests, but these measures cannot compensate for the general failure to protect old growth. These old growth measures offer only tentative protection, and the scope of any protection is difficult to decipher.

For example, Alternative C provides for "deferred harvest" of 661 treatment acres "on the cusp of meeting the threshold for late successional forest characteristics."[34] While the EA describes these stands as "removed from Alternative C," the term "*deferred* harvest" (emphasis added) suggests that harvest is still intended at a future date—at which point the stands would presumably be approaching old growth conditions even more closely than they are now. Standing Trees supports not cutting these acres as part of the TGIRP, but that decision should not be undermined by the suggestion of future harvest. Furthermore, the stands designated for deferred harvest, while certainly worthy of protection, do not address the larger concerns about the TGIRP's threat to old growth, including the arbitrary disregard of the regional old-growth definition.

The fact that the Forest Service introduces yet another definition of older forests (in addition to those discussed above) for identifying stands for deferred harvest further confuses the public and indicates arbitrary decision-making. The Final EA fails to justify cutting in areas that meet the regional definition of old growth while (appropriately) protecting areas that meet other definitions/methods of identifying older forests. The inconsistent treatment of definitions creates at least the appearance that the Forest Service is selectively adhering to definitions to minimize interference with its unrelated management prerogatives, especially because the regional definition (where the Service allows logging) encompasses significantly more acres than the Forest Plan definition.[35]

Alternative C also contains the following mitigation measure:

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[34] Final EA at 23. Based on the criteria for identifying these forests, Standing Trees disputes that they are merely "on the cusp of" being late successional forests rather than already qualifying as such. The criteria for identifying these forests fit comfortably within the Forest Plan's definition of "late successional forest." *See* GMNF Forest Plan 136 (defining late successional forest); USFS, *Telephone Gap Integrated Resource Project - Alternative Development Process Summary* 2-3 (Oct. 2023).

[35] Under the Forest Plan definition, the Forest Service designated about 700 acres of old growth across the entire Forest, while the regional definition of old growth would likely encompass about 2,800 acres within the Telephone Gap project area alone. *See* GMNF Plan, EIS ch. 3, at 3-11; Email from James Donahey, GMNF, to Zack Porter, Standing Trees (Dec. 16, 2024, 1:38 PM) (Exhibit 5).

> During layout of stands proposed for harvest, stands identified to have more than 12 live trees per acre greater than 20 inches diameter breast height (DBH), more than 16 dead and down trees per acre greater than 20 inches DBH, and more than 8 standing dead trees per acre greater than 20 inches DBH will be deferred from harvest activities.[36]

While Standing Trees fully supports protecting stands that meet the definition above (and reiterates the concern about harvest being merely *deferred*), the effect of this mitigation measure is enigmatic at best. The Forest Service provides no basis for the criteria it has selected, nor any estimate of how many acres within the GMNF or the Project area may meet these criteria.

The criteria in the mitigation measure are so demanding that it is not obvious whether any acres in the GMNF—much less the acres subject to harvest—would meet them. The contrast between these criteria and the regional old-growth definition is striking. While the regional definition varies based on species, nowhere does it come close to requiring 12 live trees per acre greater than 20 inches DBH (nor does it include additional requirements for dead and down trees and standing dead trees).[37] As a back-of-the-envelope comparison, the median of the regional definition would require 10 trees per acre of at least 16 inches DBH, far short of the criteria in the mitigation measure. The Forest Service's failure to explain the intent or likely effect of this mitigation measure does not satisfy NEPA's "hard look" standard. The inclusion of a mitigation measure that seems likely to have no effect further increases confusion—and provides false assurance—about the impacts of the TGIRP.

c. Extensive Science Supports Preserving Mature and Old Trees.

The GMNF is a defense 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 prioritizing carbon and water storage, water quality, and habitat for species that require old and unfragmented forests.

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, states:

> As a result of the persistent structural and vegetative complexity above ground and the diverse biome belowground and associated complex biotic and abiotic

[36] Final EA, Appendix B, at B-1.
[37] *See* U.S. FOREST SERV. & BUREAU OF LAND MGMT., FS-1215A, MATURE AND OLD-GROWTH FORESTS: DEFINITION, IDENTIFICATION, AND INITIAL INVENTORY ON LANDS MANAGED BY THE FOREST SERVICE AND BUREAU OF LAND MANAGEMENT IN FULFILLMENT OF SECTION 2(B) OF EXECUTIVE ORDER NO. 14072, at 52 tbl. 17 (2024) (Exhibit 6).

> 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.[38]

Interior mature and old-growth forests can be especially beneficial, which the Forest Service recognized in the Forest Plan but fails to analyze in the Final EA.[39]

There is a common misconception that young forests are better than old when it comes to removing carbon in the atmosphere.[40] In fact, old forests store much more carbon than young forests, and they continue to accumulate carbon over time.[41] And the rate of carbon sequestration increases as trees[42] and stands[43] age.

The Forest Service contends that the rate of carbon sequestration tends to decline in older forests and discounts measurements of sequestration by individual trees in favor of stand-level or larger measurements.[44] But it does not refute that old forests tend to store large quantities of carbon and usually continue net sequestration well into old age (despite the suggestion that "under some conditions" old forests may become carbon neutral). Logging old forests in the GMNF would release significant amounts of carbon in the near term, at a time when it is critical to reduce emissions and maintain and increase carbon storage to mitigate climate change.

Due to current management practices, including logging 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 18th and 19th centuries. A 2019 paper by Harvard Forest researchers found "a large difference between the landscape's potential to store carbon and the landscape's current trajectory."[45] The Forest Service states that the authors of that paper did not account for

[38] Zaino et al., Vermont Conservation Design – Part 2: Natural Communities and Habitats Technical Report 15 (2018), (hereinafter "Zaino et al. (2018)") (Preliminary EA Comments Ex. 4).
[39] *See* GMNF Plan at 134.
[40] *See, e.g.*, Final EA at 65.
[41] Keith et al., *Re-evaluation of Forest Biomass Carbon Stocks and Lessons from the World's Most Carbon-Dense Forests*, 106 Proceedings of the National Academies of Sciences 28 (2009) (Preliminary EA Comments Ex. 5); Luyssaert et al., *Old-Growth Forests as Global Carbon Sinks*, Nature vol. 455 (Jan. 2008) (Preliminary EA Comments Ex. 6); Leverett et al., *Older Eastern White Pine Trees and Stands Sequester Carbon for many Decades and Maximize Cumulative Carbon*, Frontiers in Forests and Global Change (2021) (Preliminary EA Comments Ex. 7).
[42] Stephenson et al., *Rate of Tree Carbon Accumulation Increases Continuously with Tree Size*, Nature (Mar. 2014) (Preliminary EA Comments Ex. 7).
[43] Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, 544 Forest Ecology and Management 121145 (2023) (Preliminary EA Comments Ex. 27).
[44] Consideration of Comments at 177.
[45] Duveneck & Thompson (2019) at 115.

carbon that continued to be stored in harvested wood products but acknowledges that leaving the forests unharvested would result in higher levels of forest carbon storage decades from now.[46]

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 cutting and land conversion for agriculture in the 18th, 19th, and early 20th centuries, median forest age is about 75 years, which is only about 25–35% of the lifespan of many of the common tree species in these forests.[47] Because of the remarkable forest ecosystems in Northeastern North America, several global studies have highlighted the unique potential of these temperate deciduous forests to contribute on the global stage to climate stabilization and resilience.[48]

Recent research indicates that, if left unharvested, middle-aged temperate forests in the U.S. could continue accumulating carbon for roughly 200 years and potentially double their carbon storage in the absence of harvest and major disturbances.[49] The Forest Service attempts to dismiss this research with the misleading claim that "the methods used in the paper's analysis do not take into account disturbance or the changing levels of disturbance with climate change,"[50] implying that the authors simply neglected the changing climate. In fact, the authors expressly justified their methods in the context of climate change.[51] The Forest Service may disagree with the authors' projected climate impacts, but suggesting that the authors failed to account for climate change altogether falls short of giving this issue the "hard look" that NEPA requires.

Old forests are often 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.[52] 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 the most costly environmental crises, and both are compounded by climate change. Mature and old

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[46] Consideration of Comments at 178.
[47] Moomaw et al., *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, Frontiers in Forests and Global Change, June 11, 2019 (Preliminary EA Comments Ex. 11).
[48] Dinerstein et al., *A Global Safety Net to Reverse Biodiversity Loss and Stabilize Earth's Climate*, Science Advances (Sept. 4, 2020) (Preliminary EA Comments Ex. 12); Jung et al., *Areas of Global Importance for Terrestrial Biodiversity, Carbon, and Water*, 5 Nature Ecology & Evolution 1499 (2021) (Preliminary EA Comments Ex. 13).
[49] Birdsey et al., *Middle-Aged Forests in the Eastern U.S. Have Significant Climate Mitigation Potential*, 548 Forest Ecology & Management 121373, 9 (2023) (hereinafter Birdsey (2023) (Preliminary EA Comments Ex. 35).
[50] Consideration of Comments at 186.
[51] *See* Birdsey (2023) at 8.
[52] Thom et al., *The Climate Sensitivity of Carbon, Timber, and Species Richness Covaries with Forest Age in Boreal–Temperate North America*, 25 Global Change Biology 7:2446-58 (July 2019) (Preliminary EA Comments Ex. 14).

forests naturally mitigate against flooding and drought by slowing, sinking, and storing water that would otherwise rapidly flow into our streams, rivers, and lakes.[53] Scientists have also shown that old forests are exceptional at removing nutrients like phosphorus that drive harmful algae blooms.[54]

d. The Project's 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.[55] Just 0.3% of New England forests are older than 150 years.[56] Elk, caribou, wolverine, wolves, and cougars, once common in Vermont, have been entirely eliminated. American marten, which is threatened by logging,[57] 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,[58] and a primary driver is logging.[59] Forest structural complexity remains well below pre-European settlement levels.[60] By nearly any objective measure of health, New England's forests have deteriorated drastically due to the logging of old-growth and mature trees.

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 presettlement 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.[61]

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

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[53] Underwood & Brynn, *Enhancing Flood Resiliency of Vermont State Lands*, (2015), (hereinafter "Underwood & Brynn (2015)") (Preliminary EA Comments Ex. 15).
[54] Warren et al., *Forest Stream Interactions in Eastern Old-Growth Forests*, *in* Ecology and Recovery of Eastern Old-Growth Forests (2018) (hereinafter "Warren et al. 2018"), (Preliminary EA Comments Ex. 16).
[55] Zaino et al. (2018).
[56] USFS, Forest Inventory and Analysis Program, *Forest Inventory EVALIDator Web-Application Version 1.8.0.01*.
[57] Evans & Mortelliti, *Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher Occupancy in Maine, USA*, 33 Ecosphere e4027 (2022) (Preliminary EA Comments Ex. 17).
[58] Rushing et al., *Quantifying Drivers of Population Dynamics for a Migratory Bird Throughout the Annual Cycle*, 283 Proceedings of the Royal Society B 20152846 (2016) (Preliminary EA Comments Ex. 18).
[59] Betts et al., *Forest Degradation Drives Widespread Avian Habitat and Population Decline*, 6 Nature Ecology & Evolution 709 (June 2022) (Preliminary EA Comments Ex. 19).
[60] Ducey et al., *Late-Successional and Old-Growth Forests in the Northeastern United States: Structure, Dynamics, and Prospects for Restoration*, 4 Forests 1055 (2013) (Preliminary EA Comments Ex. 20).
[61] Lorimer & White, *Scale and Frequency of Natural Disturbances in the Northeastern U.S.: Implications for Early Successional Forest Habitats and Regional Age Distributions*, 185:1-2 Forest Ecology & Management 41, 52 (Nov. 2003) (hereinafter "Lorimer & White (2003)") (Preliminary EA Comments Ex. 21).

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)."[62]

Vermont's progress towards forest ecosystem restoration can be measured against several large landscape conservation visions that have gained traction in the past twenty 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 to be conserved as wildlands. More than 15 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 using forests for extraction of wood products.

More recently, based on the rapid decline of wildlife populations[63] and the rapid degradation of the climate,[64] scientists have suggested that much more aggressive measures must be taken to stave off climate and extinction catastrophes. 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[65] by 2030 to maintain and restore biodiversity, with an additional 20% conserved to stabilize the climate.[66] This vision was partially endorsed by the Biden Administration in Executive Order 14008.[67] To date, the Forest Service, including the GMNF, has not revealed how it intends to implement the portions of Executive Order 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.[68] Passive management is most often all that is required to restore old forest conditions.[69]

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[62] USFS, *Telephone Gap Project Landscape Assessment* at 11 (July 2021) (hereinafter "TGIRP Landscape Assessment") (Preliminary EA Comments Ex. 22).
[63] Ceballos et al., *Vertebrates on the Brink as Indicators of Biological Annihilation and the Sixth Mass Extinction*, 117:24 Proceedings of the National Academies of Sciences 13596 (2020).
[64] *Climate Change 2021: The Physical Science Basis* (Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change) (Scoping Comments Ex 16).
[65] Rosa & Malcom, *Getting to 30x30: Guidelines for Decision-Makers*, Defenders of Wildlife (2020) (Preliminary EA Comments Ex. 23). 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.
[66] Dinerstein et al., *A Global Deal for Nature: Guiding Principles, Milestones, and Targets*, 5 Science Advances (Apr. 19, 2019) (Preliminary EA Comments Ex. 24).
[67] Exec. Order No. 14008, 86 Fed. Reg. 7619, 7627 § 216 (Feb. 1, 2021) (Exhibit 7).
[68] Miller et al., *Eastern National Parks Protect Greater Tree Species Diversity than Unprotected Matrix Forests*, 414 Forest Ecology & Management 74 (2018) (Preliminary EA Comments Ex. 25); Miller et al., *National Parks in the Eastern United States Harbor Important Older Forest Structure Compared with Matrix Forests*, 7(7) Ecosphere (July 2016) (Preliminary EA Comments Ex. 26); Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, 544 Forest Ecology and Management 121145 (2023) (Preliminary EA Comments Ex. 27).
[69] *See* Zaino et al. (2018).

e. The Forest Service's Goals for Engineering Forest Age Classes Are Not Scientifically Supported.

In the midst of a nationwide focus on *protecting* and *restoring* old-growth and mature forests, the Forest Service remarkably seeks to justify the TGIRP based on an objective of *decreasing* mature and old forests in the GMNF and replacing them with younger stands. Yet the Forest Service inadequately evaluates or justifies this misguided objective in the Final EA.

The Forest Service asserts that "[t]here is a need to increase the amount of the regenerating age class (0 to 9 years old) to meet [habitat management unit] age class objectives on suitable lands."[70] As an initial matter, as described above, Standing Trees disputes the need for additional regenerating forest, especially when it is achieved through a loss of mature and old forest, which is well below its historical prevalence on the landscape.

In addition to the Forest Service pursuing a dubious objective, it is not presenting the impacts of the Project in a straightforward way—and may not have evaluated those effects at all. The GMNF Plan defines regeneration as "[t]he renewal of a tree crop *by either natural or artificial means*. The term is also used to refer to the young crop itself."[71] Yet most of the analysis of young forests in the Final EA ignores regeneration through natural means and instead recognizes regeneration only when created through even-aged management (clearcut[72] or shelterwood). And 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.[73] The Forest Plan acknowledges that "[r]egenerating forest habitats typically occur in small patches" and that patches under 20 acres are generally missed in the Plan's inventory.[74] As a result, the Final EA makes it virtually impossible for the public to understand the Project's impacts on forest habitat, and the Forest Service may be ignoring a significant portion of regeneration in the GMNF and the Project area.

As an example of how this coarse assessment affects the Forest Service's analysis, Table 3-4 in the Final EA "shows the age class distribution over the short-term, mid-term, and long-terms for all alternatives."[75] However, the table does not characterize the entire Project area, but only "suitable lands managed with even-aged silvicultural systems."[76] Moreover, the table appears to define age classes exclusively by when an area of forest last underwent even-aged management. Thus, the table suggests that there is currently no regenerating forest across the 13,780 acres assessed, there will be a significant amount of regenerating forest in seven years (following

[70] Final EA at 8.
[71] GMNF Plan at 145 (emphasis added).
[72] Relatedly, the Forest Service has failed to show that clearcutting, as used in TGIRP, is the "optimal method" for implementing the Forest Plan, which itself violates the Plan. *See* GMNF Plan at 4.
[73] Lorimer & White (2003); Kellett et al., *Forest-Clearing to Create Early-Successional Habitats: Questionable Benefits, Significant Costs*, Frontiers in Forests and Global Change (Jan. 2023) (Preliminary EA Comments Ex. 28).
[74] GMNF Forest Plan EIS ch. 3, 3-66 to -67 (also noting in Table 3.5-7 that the inventory does not include upland openings and most wetlands).
[75] Final EA at 48.
[76] *Id.* tbl. 3-4.

harvest), and there will again be no regenerating forest in 50 years and 100 years (assuming no additional harvest). By all accounts, the table seems to project the amount of regenerating forest simply by the number of years since the last even-aged management.

This methodology for identifying and projecting regenerating forest omits the ways that forests have always regenerated naturally, such as trees falling over due to wind, snow, and ice, or—in extremely rare cases—fire. It is highly unlikely that the area assessed would actually contain zero acres of regenerating forest in 100 years in the absence of even-aged management. By effectively defining the regenerating age class as years since even-aged management, Table 3-4 distorts the analysis of how much regenerating forest currently exists and will exist in the future—and whether more needs to be mechanically created.

The Forest Service has responded to this criticism by noting that accounting for sub-stand variations in the Habitat Management Unit analysis "would increase the complexity substantially."[77] While that may be true, it does not allow the Forest Service to proceed with the mechanical creation of regenerating forest based on an analytically convenient assumption that such habitat does not exist at the sub-stand level. Making that assumption for the purpose of project planning is not consistent with taking a "hard look" at this issue, as required by NEPA.[78] The Forest Service may have made a different decision had it acknowledged the regenerating forest already in existence.

It is especially baffling that Table 3-4 omits regenerating forest created through logging methods other than even-aged management, even though elsewhere the Final EA expressly describes group selection as a "regeneration method." (The Forest Service states some of the "late successional enhancement treatments" will include such methods, "including the creation of micro-environments from individual downed trees."[79]) The Final EA explains that group selection:

> differs from individual-tree selection in that the area in between groups is unharvested, and the groups where regeneration is established are larger in size . . . . Small openings provide micro-environments suitable for the regeneration of shade-tolerant species, and larger openings provide conditions suitable for more shade-intolerant regeneration.[80]

To be clear, Standing Trees believes, based on extensive scientific literature, that regenerating forest forms naturally in the GMNF and that logging to create it is unjustified. But to the extent such logging occurs, certain forms of uneven-aged management can be designed at scales that

[77] Consideration of Comments at 182.
[78] *Cf. Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1200 (9th Cir. 2008) (holding that agency erred by treating a factor in its NEPA analysis as having zero value merely because the precise value was hard to calculate).
[79] Consideration of Comments at 182.
[80] Final EA at 23–24 tbl. 2-4.

more closely approximate regeneration through natural processes, and the result should be counted as regenerating forest.

There is no logical basis for the Forest Service to exclude the effects of uneven-aged management, including group selection, from its tally of regenerating forest, but that is precisely what the Final EA does. In order to take the requisite "hard look" at this issue, the Service must consider all regenerating forest, regardless of how it was or will be formed. Likewise, to assess the project alternatives, the Service must project the amount of regenerating forest expected under each alternative, regardless of how it was or will be formed and throughout the entire project area (not only those areas subject to even-aged management). While it may be more complicated to estimate regenerating forest at the sub-stand level, the Forest Service has not explained why it could not even estimate those figures. This failure impairs the analysis of both the effects of the TGIRP and whether the Project is actually justified under a purported rationale of needing to create young forest. This failure also contradicts the Forest Plan, which defines "regeneration" as "[t]he renewal of a tree crop by either natural or artificial means."[81] The information provided thus far does not enable the public to understand the impacts of TGIRP—and it does not support a finding of no significant impact. If the complexity of this critical issue precluded its analysis in an EA, that only reinforces the need for an EIS.

The Forest Service also has failed to rationally assess regeneration on nearby private lands, including lands within the project area. The Service acknowledges that a significant amount of logging is planned on such lands: "Current use plans on file with the State of Vermont indicate that within the project area, private land commercial harvests have or will occur on approximately 6,553 acres between 2006 and 2038. This includes approximately 1,130 acres of regeneration harvest."[82] (The Final EA does not attempt to account for logging that may occur on private lands that are not enrolled in Vermont's Use Value Appraisal program.) But as with GMNF lands, the Consideration of Comments implies that accounting for regenerating forest on private lands would "increase the complexity substantially" of the HMU analysis.[83] The Forest Service concedes a lack of "knowledge of the specific forested stand objectives and reforestation practices on non-NFS lands" but irrationally assumes that the effects of those practices will be positive.[84]

The Final EA inappropriately assumes that more regenerating forest is necessarily a good thing, even without a clear understanding of how much already exists. Such an assumption does not amount to taking a "hard look" under NEPA, as it fails to grapple with two critical questions: first, whether the TGIRP risks creating too much regenerating forest in the project and surrounding area, once all regeneration, at all spatial scales, is accounted for; and second, even if the Forest Service believes that the Project area should include more regenerating forest, whether

[81] *See* GMNF Plan at 145 (defining "Regeneration" as "The renewal of a tree crop by either natural or artificial means. The term is also used to refer to the young crop itself").
[82] Final EA at 65.
[83] Consideration of Comments at 58.
[84] Final EA at 62.

the current purported deficiency is sufficiently dire to justify the harms inflicted by mechanically creating significantly more regeneration.

f. The Forest Service Has Failed to Consider the Cumulative Effects on Mature and Old-Growth Forests.

As the discussion above makes clear, the Forest Service has not taken a "hard look" at the TGIRP's cumulative effects. Analyzing cumulative effects is an essential component of a NEPA analysis and "must be considered and analyzed without regard to land ownership."[85] Here, the Forest Service has arbitrarily failed to consider the cumulative effects on mature and old-growth forests from activities across the Project area and larger region. Specifically, the Service has not evaluated whether there is a need to mechanically create more regenerating forest in light of other forest management activities—including those on private land—and whether the loss of mature and old growth forest is reasonable to fulfill any need that purportedly exists. The Forest Service states that the amounts of timber harvest on private lands within the Project area "are considered minimal in terms of habitat change."[86] But the Service does not explain how it reached that conclusion, including whether it considered all the benefits of mature and old-growth forest. And the assessment is limited to the project area, ignoring the larger landscape. Cutting down mature and old-growth forests that are well on their way toward 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.[87]

It was also arbitrary for the Forest Service not to consider harvest activities beyond the 15-year implementation period, deeming such activities "too speculative."[88] While claiming to evaluate cumulative impacts out to 50 years,[89] the Service arbitrarily treated 70% of that timeframe as harvest-free. That assumption defies what would be required to maintain the Service's habitat objectives for the Project area, particularly the substantial levels of regenerating forest. Additional logging in the Project area is foreseeable, and the Forest Service was required to include it in a cumulative effects analysis.

Requested Remedy: The Forest Service must conduct an EIS to assess the need for mechanically engineered forest classes in the context of the Project area and surrounding landscape. In assessing the purported need for the Project, the EIS must consider existing young forest however formed and regardless of its spatial scale. The Forest Service must update the Forest Plan's designations of old growth forest to encompass the various definitions of old forest discussed in the Final EA (i.e., the definitions referenced above) and

[85] *See* U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15, Ch. 10, at 43 (2023); *see also* 40 C.F.R. § 1508.1(i)(3) ("Effects or impacts means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and include . . . [c]umulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non–Federal) or person undertakes such other actions. Cumulative effects can result from actions with individually minor but collectively significant effects taking place over a period of time.").
[86] Final EA at 53.
[87] Zaino et al. (2018).
[88] Final EA at 53.
[89] *See id.*

any other forest that meets the Plan's old growth definition. The Forest Service must eliminate logging treatments from all areas that meet any of the definitions of old forest discussed in the Final EA.

2. The Forest Service Failed to Take a Hard Look at the TGIRP's Significant Effects on Climate.

Though the Forest Service provides various datapoints about the climate impacts of the TGIRP, its discussion does not culminate in a reasoned decision about whether to proceed with the Project in light of the climate harms. Standing Trees raised the issue of climate impacts in both of its comment letters.[90] This section explains why the Forest Service's climate analysis continues to fall short of NEPA's requirements. The Forest Service has not taken a "hard look" at this issue or justified a finding of no significant impact, and an EIS would be required for the Project to proceed.

a. The Forest Service Utilized Arbitrary Thresholds of Concern.

In comments on the Preliminary EA, Standing Trees explained why the Forest Service's "thresholds of concern for carbon and GHG emission effects" were arbitrary and uninformative as to the reasonableness of the TGIRP. That issue remains problematic in the Final EA. The Forest Service has generally retained the same "thresholds of concern" from the Preliminary EA, and the one threshold that it dropped has been replaced with something even more vague and illogical. In its Consideration of Comments, the Forest Service downplays the role of thresholds in the analysis, stating that they "provide context for an upper level of change before it becomes an unacceptable concern" and "are only one component for the Responsible Official to consider when determining whether effects disclosed in an environmental assessment are significant."[91] However, critiques of the thresholds remain salient because they are the clearest indication of how the Forest Service assessed the acceptability of the TGIRP's climate impacts. Minimizing the importance of the thresholds would therefore only make the Forest Service's analysis more abstruse and cast additional doubt on the reasonableness of that analysis.

The first threshold of concern carried over from the Preliminary EA assesses whether the carbon impacts from the TGIRP are worse than the carbon impacts of realizing the GMNF-wide decade-long allowable sale quantity ("ASQ").[92] This threshold is inappropriate and uninformative for at least two reasons.

First and most importantly, the Forest Service provides no evidence that climate impacts were incorporated into the ASQ determination—in other words, the ASQ does not (and does not purport to) speak to climate impacts in any way. Using the ASQ to assess the acceptability of

[90] *See* Scoping Comments at 31-37; Preliminary EA Comments at 15-21.
[91] Consideration of Comments at 183.
[92] Final EA at 64 tbl. 3-7. This portion of the Objection collectively addresses both of the thresholds of concern that are based on ASQ ("Level of carbon removed exceeds the amount removed if allowable sale quantity harvest is realized" and "Level of biogenic carbon emitted into the atmosphere exceeds the amount emitted if allowable sale quantity harvest is realized").

climate impacts, even as one factor in a multifaceted analysis, is irrational because the ASQ has no relevance whatsoever to climate impacts.

Second, comparing the effects of an individual project to the maximum impacts allowed under the Forest Plan evades project-level review. This methodology effectively assumes that anything the Forest Service is allowed to do under the Forest Plan does not cross the threshold of concern.[93] Provided that the Forest Service does not exceed the Plan's ASQ, this methodology leaves nothing to be learned from project-level analysis. While the Forest Service must comply with the Forest Plan, timber harvest projects like TGIRP are project level decisions requiring "additional environmental analyses and disclosure."[94] By the Forest Plan's own terms, compliance with the Plan does not signify compliance with NEPA for individual projects.

The Forest Service also retained the Preliminary EA's threshold of concern that the "[l]evel of biogenic and fossil fuel carbon emitted into the atmosphere has a measurable adverse effect." As Standing Trees explained in prior comments (and reasserts here), it is impossible to understand how this threshold is applied to the TGIRP. According to the White House Council on Environmental Quality, evaluating a project in the context of global climate change is not appropriate "because this approach does not reveal anything beyond the nature of the climate change challenge itself—the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric [greenhouse gas] concentrations that collectively have a large effect."[95]

Moreover, as with the threshold about ASQ, the Forest Service seems to have chosen a threshold that exceeds anything it could possibly do. The Final EA's failure to define, even in conceptual terms, what would constitute a "measurable adverse effect," leaves this threshold completely open to question. For this threshold to have any meaning, there must be a level of carbon emissions that the Forest Service concedes *would* have "a measurable adverse effect." Would emissions double those of the TGIRP cross that threshold? What about emitting all of the carbon stored in the GMNF? By neglecting to disclose that level, the Service deprives this threshold of any analytical value.

Finally, while the Forest Service appropriately removed the Preliminary EA's threshold of concern about the GMNF becoming a carbon source rather than sink, it added a new threshold that is purely subjective: "Level of carbon emissions result in unacceptable adverse effects."[96] This is tantamount to saying that the Forest Service will become concerned when it finds the level of carbon emissions to be concerning. There is no way for the public to measure the TGIRP's impacts against this threshold. As with the other climate-related thresholds, this one serves more to evade meaningful analysis than to support it.

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[93] In theory, the emissions of a single 15-year project like Telephone Gap could exceed the emissions of the 10-year ASQ, assuming very little other management activity in the Forest. But that extreme scenario is the exception that proves the rule.
[94] GMNF Plan at 5.
[95] National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196, 1201 (Jan. 9, 2023).
[96] Final EA at 64.

Thresholds have no purpose if it is impossible to determine when they are crossed. The Forest Service's approach is akin to someone tallying their caloric intake without having any idea how many calories it is safe to consume. The use of these thresholds does not amount to a "hard look" and cannot support a finding of no significant impact.

b. The Forest Service Presented Arbitrary and Meaningless Comparisons and Context

In comments on the Preliminary EA, Standing Trees explained why the Forest Service's attempts to contextualize the TGIRP's carbon emissions did not contribute to a meaningful carbon analysis and, to the contrary, appeared to misleadingly minimize the climate impacts.

Standing Trees reasserts those concerns here, including as they relate to the timeframe for assessing Project impacts. Climate change is a present-day threat, and the need to reduce atmospheric GHG concentrations is urgent. The Forest Service's contention that the GMNF will eventually make up for the carbon lost through the TGIRP does not account for the climate impacts of the Project in the near term.

After the Scoping and Preliminary EA comment periods, new information arose that raised additional concerns about the comparisons that the Forest Service used to contextualize the TGIRP's climate impacts. Notes from a meeting of Forest Service staff on January 23, 2024 (obtained by Standing Trees through the Freedom of Information Act) stated:

> Question about carbon analysis. [The Project Team Leader] briefly talked about the numbers and providing context to the numbers. The amount of carbon emitted from the project does sound high. Equivalent to e.g., ~45,000 passenger vehicles in a year or the fossil fuel heating needs of ~25,000 homes over a year. Compared to the carbon being sequestered by the forest, however, these figures are de minimis. Context is key.[97]

In both the Preliminary and Final EA, these numbers appeared dramatically smaller—not because the anticipated emissions decreased, but rather because the Forest Service presented these comparisons as annualized over the 15-year anticipated life of the Project. Specifically, the Final EA states that the "15-year annual average emissions from" Alternative C is equivalent to the annual electricity use of 3,349 single-family homes, 4,039 gasoline-powered passenger vehicles, 39,289 barrels of oil consumed, and 93.3 railcars of coal burned.[98] The Final EA does not note that the cumulative emissions from the TGIRP would be equivalent to the annual emissions from 50,235 single-family homes, 60,585 vehicles, 589,335 barrels of oil, or 1,399.5 railcars of coal.

In light of the newly released information indicating that Forest Service personnel thought that the cumulative emissions "sound high," there is cause for concern that the annualized data were presented at least in part as "context" to support a predetermined conclusion that the TGIRP presented no unacceptable climate impacts. To be sure, for certain Federal actions, annualized

[97] GMNF, Telephone Gap IRP Full IDT Meeting Notes 5 (Jan. 23, 2024) (Exhibit 15).
[98] Final EA at 74 tbl. 3-15

greenhouse gas emissions may be relevant,[99] such as when a regulation changes the operation of a polluting facility over an indefinite period. But for a single, time-limited project such as the TGIRP for which total emissions have been estimated, annualizing emissions over 15 years serves only to slice up and obscure the total impact.[100] That is especially so where, as here, the annualized emissions are not estimates of the actual emissions anticipated in any given year but instead are simply the total project emissions divided by 15. Carbon dioxide is a long-lived pollutant, remaining in the atmosphere for hundreds of years.[101] Nearly all of the carbon dioxide emitted into the atmosphere in year 1 will still be there in year 15. What matters is not the annualized emissions but the cumulative emissions of the entire Project.

Moreover, the meeting notes quoted above create serious tension with the Forest Service's Consideration of Comments. In defending its thresholds of concern for carbon, the Forest Service repeatedly states, "The thresholds do not imply carbon emissions are de mininis [sic] or negligible when compared to carbon storage at the forest-wide level and the analysis in the Prelminary [sic] EA never makes this conclusion."[102] While the Preliminary EA does not expressly call the Project's carbon emissions "de minimis" compared to forest-wide carbon levels, that was the conclusion of the Project Team Leader in early 2024, who stated that "[c]ontext is key" to demonstrate the Project's carbon "figures are de minimis."[103] Although the Forest Service did not disclose its determination that the TGIRP's carbon emissions were de minimis in the Final EA, the Final EA apparently included "context" from which the Service expected the public to draw that conclusion about the Project's effects.

In addition to potentially confusing the public about the Project's impacts, the Forest Service's use of annualized emissions comparisons raises questions about whether the Service gave a "hard look" to cumulative figures, as required under NEPA, or generated smaller figures to support a predetermined conclusion that the TGIRP would have trivial climate impacts.

c. The Consideration of the Social Cost of Carbon Was Incomplete.

In comments on the Preliminary EA, Standing Trees criticized the Forest Service for not calculating the social cost of the greenhouse gas emissions ("SC-GHG") from the TGIRP. For the Final EA, the Forest Service added an appendix providing estimates of that metric.[104] The inclusion of this appendix is a step forward, but the Forest Service stopped short of conducting a reasonable assessment of the data it provided.

The treatment of SC-GHG in the Final EA contains two principal defects. First, it biases the calculations downward by using inappropriately high discount rates. The Forest Service uses a

[99] *See* National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196, 1201 (Jan. 9, 2023).
[100] There may be an argument for annualizing the emissions attributed to 20-year reduced growth potential, but they represent less than 15% of total project emissions under Alternative C. *See* Final EA 68 tbl. 3-10, 74 tbl. 3-14.
[101] *See* Alan Buis, *The Atmosphere: Getting a Handle on Carbon Dioxide*, NASA Jet Propulsion Laboratory (Oct. 9, 2019), https://science.nasa.gov/earth/climate-change/greenhouse-gases/the-atmosphere-getting-a-handle-on-carbon-dioxide/.
[102] *See, e.g.*, Consideration of Comments at 184.
[103] GMNF, Telephone Gap IRP Full IDT Meeting Notes 5 (Jan. 23, 2024) (Exhibit 15).
[104] Final EA, App'x G.

range of discount rates to derive various SC-GHG estimates. While the use of multiple discount rates may be defensible in itself, the problem is that *all* of the discount rates that the Forest Service uses are *higher* than the default rate suggested by the White House Council on Environmental Quality (based on analysis by the Office of Management and Budget). Specifically, the Service uses discount rates of 5%, 3%, and 2.5%—all higher than CEQ's recommended default of 2%.[105] As a result, the *entire range* of SC-GHG estimates in the Final EA is lower than an estimate derived using CEQ/OMB's most recent suggested rate. Entirely neglecting the administration's own recommended SC-GHG estimate cannot qualify as taking a "hard look," as required by NEPA.

The second main defect in the SC-GHG assessment is its failure to compare these monetary estimates to other monetary estimates for the Project. In comments on the Preliminary EA, Standing Trees noted that the SC-GHG likely exceeded the revenues generated by the Project many times over. Information in the Final EA confirms that conclusion: even using the high discount rate of 2.5% (the lowest rate in the Service's analysis), the SC-GHG for Alternative C is $19,895,000.[106] Using a scenario representing more severe climate impacts, that estimate rises to $40,315,000.[107] In contrast, the costs of the TGIRP are expected to exceed the timber sale revenue, yielding a *loss* to the Forest Service of $122,000 (net present value).[108]

The Forest Service declines to acknowledge that discrepancy and instead states that the "carbon cost estimates . . . do not constitute a cost-benefit analysis, nor do the SC-GHG numbers present a direct comparison with other resource effects disclosed in the Final EA."[109] Even if the Forest Service chose not to conduct a cost-benefit analysis for the entire action, it was arbitrary to ignore this significant discrepancy, which had already been raised in public comments. This omission is all the more concerning because the Forest Service *did* include a seemingly gratuitous comparison: the SC-GHG of the 15-year *total forest* carbon flux.[110] Comparing TGIRP's impacts to the entire Forest's carbon—while disregarding the project's other monetized costs and benefits—appears selective and serves little discernible purpose other than to once again minimize the perceived impacts of the Project.

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[105] *Compare* Final EA, App'x G, at G-3 to -4 tbl. G-1, *with* White House Council of Economic Advisors, Issue Brief, *Valuing the Future: Revision to the Social Discount Rate Means Appropriately Assessing Benefits and Costs*, THE WHITE HOUSE (Feb. 27, 2024), https://www.whitehouse.gov/cea/written-materials/2024/02/27/valuing-the-future-revision-to-the-social-discount-rate-means-appropriately-assessing-benefits-and-costs/. *See also* White House Office of Management & Budget, Press Release, *Biden-Harris Administration Releases Final Guidance to Improve Regulatory Analysis*, THE WHITE HOUSE (Nov. 9, 2023), https://www.whitehouse.gov/omb/briefing-room/2023/11/09/biden-harris-administration-releases-final-guidance-to-improve-regulatory-analysis/; OFF. OF MGMT. & BUDGET, EXEC. OFF. OF THE PRESIDENT, CIRCULAR NO. A-4, REGULATORY ANALYSIS 76-77 (2023).
[106] Final EA, App'x G, at G-3 tbl. G-1. Elsewhere, the Forest Service acknowledges that the most recent methodology from EPA would yield SC-GHG estimates of $30 million to $95 million for Alternative B. *See* Consideration of Comments at 188.
[107] Final EA, App'x G, at G-4 tbl. G-1.
[108] Final EA at 129 tbl. 3-51. The estimates of SC-GHG and the present net value of the projects costs and revenues use different calculation methodologies (including different discount rates). The purpose of this comparison is simply to illustrate that the SC-GHG is significantly higher than the project's net present value.
[109] Final EA, App'x G, at G-1.
[110] Fina EA, App'x G, at G-3 to -4 tbl. G-1.

d. The Forest Service Failed to Adequately Consider the Fate of Carbon in Soil and Harvested Wood Products.

In comments on the Preliminary EA, Standing Trees explained that the Forest Service had not adequately supported its optimistic projections of carbon retained in harvested wood products and soil post-harvest, contrary to NEPA's "hard look" requirement. With respect to soil carbon, Standing Trees cited local studies to provide ample evidence that logging significantly reduces soil carbon. For example, a 2014 study from New England that looked specifically at sites in northern New England "found a significant negative relationship between time since forest harvest and the size of mineral soil C pools, which suggested a gradual decline in C pools across the region after harvesting."[111]

The Forest Service's consideration of soil carbon remains inadequate. In its Consideration of Comments, the Service writes, "The referenced Petrenko and Friedland 2015 paper states directly before the excerpt quoted by the commenter supporting their perspective 'we found no significant differences between soil C pools in >100 year old and harvested forests.'"[112] But that misleadingly takes the quoted sentence out of context. The paper authors were clear they could not verify a "significant" relationship because of the sample size and potential for error due to spatial variability. They explained, "Despite not having the statistical power to determine significant differences between undisturbed and harvested forests, pools were between 5% and 31% higher in >100-year-old forests, which suggests a regional trend."[113] The Forest Service's apparent conclusion that the paper suggests no differences in soil carbon between the two forest types is a serious misreading, not a "hard look."

The Forest Service also references papers cited in the Preliminary (and Final) EA that purportedly support its position. In the Final EA, the Forest Service states, "Current evidence specific to the Northeast indicates harvesting does not detectably alter soil carbon stocks, especially when operations are designed to minimize soil disturbance (Nave et al. 2021 and 2024, Jevon et al. 2019, and Ross and Knowles 2023)." The support that those papers provide for the Forest Service's position is far from clear. Jevon et al. 2019 concludes, "Not only do we see lower SOC [soil organic carbon] in our study's managed forest than in other, less disturbed forests, but we also find evidence of a legacy of previous management decisions in the vertical distribution of SOC."[114]

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[111] Petrenko & Friedland, *Mineral Soil Carbon Pool Responses to Forest Clearing in Northeastern Hardwood Forests*, 7 GCB Bioenergy 1283, 1283 (2015) (Preliminary EA Comments Ex 38); Lacroix et al., *Evidence for Losses from Strongly Bound SOM Pools After Clear Cutting in a Northern Hardwood Forest*, Soil Science (2016) (Preliminary EA Comments Ex 39); Buchholz et al., *Mineral Soil Carbon Fluxes in Forests and Implications for Carbon Balance Assessments*, 6 Global Change Biology: Bioenergy 305 (2014) (Preliminary EA Comments Ex 40).
[112] Consideration of Comments at 191.
[113] Petrenko & Friedland, *Mineral Soil Carbon Pool Responses to Forest Clearing in Northeastern Hardwood Forests*, 7 GCB Bioenergy 1283, 1288 (2015) (Preliminary EA Comments Ex 38).
[114] Fiona V. Jevon et al., *Tree basal area and conifer abundance predict soil carbon stocks and concentrations in an actively managed forest of northern New Hampshire, USA*, 451 Forest Ecology and Management 8 (2019) (Exhibit 9).

Ross and Knowles cautioned, "Future harvesting activities may result in greater carbon losses in our region because climate change has lessened the likelihood of winter conditions that can lessen the impact of traffic."[115] In the Final EA, the Forest Service acknowledges that "[c]limate change is predicted to increase soil temperatures and reduce soil moisture, snow cover, and soil freezing, increasing the amount of time they would likely be more susceptible to physical alteration by heavy equipment."[116] The Biological Evaluation notes, "Reductions in the number of days when the ground is frozen or covered by snow has led to timber harvesters having fewer days per winter to operate. In an effort to allow the most flexibility for management activities proposed in Telephone Gap IRP some activities will be considered for summer/dry season opportunity."[117] While the Final EA contains language about protecting susceptible soil,[118] it does so only in the context of soil health and does not evaluate the effect of the protection measures on carbon.

The Nave et al. 2024 paper provides the most direct support for the Forest Service's position. Notably, this paper appears to have a been a collaboration predominantly between USDA and the timber industry, as reflected in both its authorship and its funding.[119] The Forest Service does not justify the extraordinary reliance that it places upon this paper.

Standing Trees' comments on the Preliminary EA also criticized the Forest Service for basing its analysis of carbon stored in harvested wood products on "Murray et al. Pending"—a paper that was not available for public review during the comment period. In the Consideration of Comments, the Forest Service notes that the paper is now available.[120] While the availability of the paper is welcome, it has not been feasible for the public to review, understand, and respond to this highly technical document during the objection period. In describing the paper, the Forest Service explains:

> The Entity-Scale Inventory is a highly vetted and reputable data science product published by USDA. The 2024 update reflects four years of work by a team of more than 60 authors and reviewers, including USDA, scientists, academic researchers, and participants from non-governmental organizations and institutions. . . . The Managed Forest Systems Chapter, which reflects over three years of work, provides guidance and resources for quantifying GHG flux from forest management activities and includes an accompanying Excel workbook tool

[115] Donald S. Ross & Meghan E. Knowles, *Partial Harvest Effects on the Forest Floor at Four Northern Hardwood Sites in the Green Mountains of Vermont*, USA, 69 Forest Science 594-95 (2023) (Exhibit 16).
[116] Final EA 98.
[117] USFS, *Telephone Gap Integrated Resource Project: Biological Evaluation (Wildlife)* 8-9 (Nov. 19, 2024).
[118] Final EA, Appendix A, at A-5.
[119] *See* Lucas E. Nave et al., *Land use change and forest management effects on soil carbon stocks in the Northeast U.S.*, 19 Carbon Balance and Management 5, at 16 (detailing author affiliations and funding by USDA and the National Council for Air and Stream Improvement, Inc ("NCASI")) (Exhibit 10). For NCASI's U.S. members, see NCASI, *U.S. Members*, https://www.ncasi.org/u-s-members/ (last visited Jan. 13, 2025) ("NCASI currently has approximately 80 U.S. Member Companies, which represent more than 90% of the paper and paperboard produced, nearly 70% of the wood panels produced, and more than half of industrial timberland acreage in the United States.").
[120] *See, e.g.*, Consideration of Comments at 189.

that combines equations with default data, factors and coefficients to automate estimates for a limited set of forest management activities, including harvest.[121]

Standing Trees maintains that it is not reasonable to expect the public to review such a complicated methodology during the short window of the objection period.

e. The Forest Service Failed to Consider Cumulative Effects.

In comments on the Preliminary EA, Standing Trees criticized the Forest Service for failing to take a "hard look" the Project's cumulative climate effects, as required by NEPA. The shortcomings of the Forest Service's analysis included limiting its consideration to the effects of other logging within the GMNF (as opposed to across the Forest Service's or the larger Federal estate) and limiting its consideration to the effects of logging scheduled within the 15-year anticipated window for the TGIRP. In response, the Forest Service states, "Spatial and temporal boundaries set the limits for selecting those actions that are most likely to contribute to a cumulative effect. The effects of those actions must overlap in space and time for there to be potential cumulative effects."[122]

Even accepting, for the sake of argument, the Forest Service's stated limitation on the consideration of cumulative effects, the Final EA falls short of that standard. As the Forest Service states, the effects of multiple actions must be considered when those *effects* (not necessarily the *actions*) overlap in space and time. The Final EA errs by considering only whether the *actions* that cause the effects overlap.[123] As a specific example, Standing Trees criticized the failure to consider, as part of a cumulative effects assessment, the effects of future logging not prescribed by the TGIRP but that the Preliminary and Final EA make clear would be necessary for long-term achievement of the TGIRP's forest habitat objectives. The TGIRP's *effects* of the reduced forest carbon stocks will likely persist through (and overlap with the effects of) that future logging because, as explained above, carbon dioxide remains in the atmosphere for hundreds of years. Similarly, the Forest Service cannot disregard the climate *effects* of logging that preceded the TGIRP when assessing cumulative effects. The climate effects of *all* of the Forest Service's logging on the GMNF—whether in the past, present, or foreseeable future—overlap both spatially and temporally.

A similar argument applies to actions that occur on national forests (and other Federal lands) outside of the GMNF. Climate effects are global, and therefore the effects of projects on different national forests overlap spatially (as well as temporally). The Forest Service and other federal agencies cannot diminish the apparent impact of their land management decisions by failing to consider them collectively. Under its own accurate understanding of NEPA, the Forest Service is compelled to account for all carbon emissions from past, ongoing, and foreseeable projects, regardless of geographic proximity.

[121] *See, e.g.*, Consideration of Comments at 190.
[122] Consideration of Comments at 210 (citing Forest Service Handbook 1909.15, Chapter 10, Section 15.2). *See also* 40 C.F.R. § 1508.1(i)(3).
[123] Final EA at 74.

f. Vermont in the Context of Climate Change

As Standing Trees observed in prior comments, climate change is driving and exacerbating a range of threats to Vermont, the New England region, and the globe. The Forest Service's decision whether to proceed with the TGIRP and, if so, what form the project should take, 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.

Focusing on climate impacts to Vermont, 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).[124]

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.

An emerging global consensus recognizes forest protection as critical to mitigating the impacts of climate change. 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.[125] Soon afterward, the February 2022 Intergovernmental Panel on Climate Change Report found that "[s]afeguarding biodiversity and ecosystems is fundamental to climate resilient development, in light of the threats climate change poses to them and their roles in adaptation and mitigation"[126]

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.[127] Vermont may be a relatively small state, but its temperate deciduous forests are among the planet's most effective carbon sinks, and in any event global objectives can be attained only through the aggregation of climate-smart strategies applied at many different sites. 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 cutting frequency and intensity. Across the Northeast and Upper Midwest, timber cutting 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

[124] Faulkner et al., *Vermont Climate Assessment: Executive Summary* 1, University of Vermont (2020) (Preliminary EA Comments Ex 29).
[125] UN Climate Change Conference (COP26), *Glasgow Leaders' Declaration on Forests and Land Use* (2021) (Preliminary EA Comments Ex 30).
[126] IPCC, *Summary for Policymakers*, *in* Climate Change 2022 Impacts, Adaptations, and Vulnerability 32 (2022) (Preliminary EA Comments Ex 31).
[127] Erb et al., *Unexpectedly Large Impact of Forest Management and Grazing on Global Vegetation Biomass*, 553 Nature 73 (2018) (Preliminary EA Comments Ex 32).

3% from conversion to other land uses.[128] Other recent studies show that among land uses in New England, timber cutting is the leading cause of tree mortality[129] and has the greatest impact on aboveground carbon storage.[130] Thus, logging associated with projects such as the TGIRP is a material factor impacting regional climate change mitigation.

Requested Remedy: The Forest Service must conduct an EIS to determine whether climate impacts are acceptable rather than use arbitrary thresholds and selective comparisons. The Forest Service must use appropriate discount rates in its SC-GHG analysis. The Forest Service must justify why it credits or discards various articles about soil carbon and provide the public with a meaningful opportunity to comment on the carbon stored in harvested wood products. The Forest Service must not arbitrarily limit the scope of its cumulative effects analysis.

3. The Forest Service Failed to Take a Hard Look at the TGIRP's Impacts to Wildlife.

The Forest Service claims that the TGIRP will enhance wildlife habitat by increasing the structural diversity of forest stands and improving habitat conditions for early successional species.[131] However, these benefits are highly speculative and unsupported by detailed analysis. For example, the Final EA fails to demonstrate how the purported benefits to species favoring early successional habitats will outweigh the harm caused to the mature forests they'll be replacing—habitats critical to a wide range of species. Moreover, the Final EA provides no data to confirm that species dependent on early successional forests are currently in decline compared to levels of historical abundance prior to land clearing in the 1700s and 1800s, which led to an abnormal abundance of early successional forests and related species as described in Kellett et al. 2023, cited in our previous comments.[132] or that such interventions are necessary in the Project area. An EIS is required to assess the Project's speculative wildlife benefits and the adequacy of proposed mitigation measures specific to sensitive species.

Standing Trees first raised this issue in its Scoping Comments, emphasizing the Forest Service's obligation to analyze "the nature of potential impacts on all threatened, endangered, and sensitive species before engaging in any ground-disturbing projects."[133] These concerns were reiterated in its Comments on the Preliminary EA, this time with particular focus on the rationale behind replacing established, mature forest habitat in favor of younger stands, imploring the Forest Service to take a hard look at "the tradeoffs of creating and decreasing various habitat types."[134] Unfortunately, the Forest Service's decision to replace swaths of mature habitat with

[128] Harris et al., *Attribution of Net Carbon Change by Disturbance Type Across Forest Lands of the Conterminous United States*, 11:24 Carbon Balance & Management (2016) (Preliminary EA Comments Ex 33).
[129] Brown et al., *Timber Harvest as the Predominant Disturbance Regime in Northeastern U.S. Forests: Effects of Harvest Intensification*, 9(3) Ecosphere (Mar. 2018) (Preliminary EA Comments Ex 34).
[130] Duveneck & Thompson (2019).
[131] Final EA at 48.
[132] Scoping Comments at 9; Preliminary EA Comments at 13, 37.
[133] Scoping Comments at 37.
[134] Preliminary EA Comments at 29.

regenerating forest is no more reasoned in the Final EA than the preceding draft, so we continue to object on these grounds.

Additionally, the deficiencies outlined herein demonstrate that the TGIRP's impact on threatened and endangered species has not been fully assessed. The Final EA fails to adequately address the impacts of the Project on critical wildlife species, including insufficient consideration of the northern long-eared bat (uplisted to endangered under ESA and state-endangered in Vermont) and no consideration of the Canada lynx (listed as threatened under ESA and state-endangered in Vermont) which it precipitately dismissed as extirpated from the area, ignoring recent evidence to the contrary. The absence of this analysis in the Final EA renders the FONSI arbitrary and capricious under NEPA and the APA.

a. The Forest Service's No Effects Finding for Threatened Canada Lynx is Arbitrary and Capricious.

Multiple confirmed lynx sightings in and around the GMNF between August and November 2024 highlight the species' presence and invalidate the dismissive assumption that Canada lynx are fully extirpated from the Project area as the Forest Service assumed. These sightings, disclosed in part through a FOIA request,[135] directly contradict the Forest Service's assertion in the Biological Evaluation that lynx are "unlikely to occur in the analysis area." [136] By neglecting to conduct additional surveys or update its conclusions, the Forest Service has ignored critical data that could significantly alter the Project's impact analysis. The Final EA's failure to integrate this evidence—or to revise its analysis in light of it—violates its obligations under both NEPA and the ESA.[137] Moreover, the Forest Service's failure to incorporate this new data into its analysis violates the GMNF Plan, which requires "[a]ll project sites must be investigated for the presence of federally listed endangered, threatened, or proposed species . . . and/or habitat for these species prior to beginning any authorized ground-disturbing activity at the site."[138]

At least 15 confirmed Canada lynx sightings occurred near the Project area between August and October 2024,[139] including a September 3rd sighting *in* the GMNF *by* Forest Service employees. While Service employees disclosed the sighting and security camera footage to the U.S. Fish and Wildlife Service ("FWS"), Standing Trees is unaware of the Forest Service disclosing the sighting to the general public. No TGIRP document makes mention of any recent sighting. In

[135] FOIA request submitted 10/11/2024 by Earthrise Law Center on behalf of Standing Trees sought: "All records supporting the conclusion that Canada lynx were extirpated, including the unpublished "Species Data Collection Form for Lynx canadensis" used in Biological Evaluation. Additionally, all records regarding the Aug. 2024 lynx sighting."
[136] Revised Wildlife Biological Evaluation at 5.
[137] *See Native Ecosystems Council v. Krueger*, 946 F.Supp.2d 1060, 1073-1075 (D. Mont. 2013) (prohibiting the Forest Service from substituting a higher "occupancy" standard for the ESA's "may be present" threshold when assessing possible impacts on Canada lynx).
[138] GMNF Plan, Standard S-1 for Rare and Unique Biological Features, at 30. While the GMNF Plan includes standards and guidelines for some species (e.g., Indiana Bat), it does not include specific standards and guidelines for Canada lynx, which is yet another reason the Forest Service needs to updated the 19-year-old plan.
[139] *Rare Canada Lynx Sightings Continue, Evidence of Habitat Conservation Success,* VT FWD (Oct. 4, 2024) https://vtfishandwildlife.com/press-releases/rare-canada-lynx-sightings-continue-evidence-habitat-conservation-success (last visited Jan. 13, 2025).

fact, while experts are touting these sightings as a success story of habitat connectivity,[140] the Forest Service inexplicably maintains that "[l]ynx have not been observed in this area since extirpation," there is "[n]o connectivity to existing populations," and lynx are therefore "[u]nlikely to occur in analysis area."[141]

The updated Biological Evaluation cites no additional literature supporting its unsubstantiated Lynx assessment, save for an unpublished USDA species data collection form.[142] It does, however, cite Vermont's endangered species list denoting lynx as both state-endangered and federally-threatened.[143] Despite this heightened need for protection, the Forest Service employed insufficient survey methodology to assess likelihood of occurrence. The best we can discern is that the Forest Service concluded lynx are "[u]nlikely to occur in analysis area" and have "[n]o connectivity to existing populations" based primarily, or even solely, on "[c]amera trapping that was conducted from 2016 to 2018," years before this Project was proposed.[144] No further detail is provided as to where these cameras were located or why no additional surveying occurred. The Forest Service's lynx guidelines recommend employing varied monitoring methods such as tracking snow prints and collecting fur.[145] Per 16 U.S.C. § 1536(a)(2), agencies must use the "best scientific and commercial data available" when making decisions about listed species. The Forest Service's reliance on outdated and limited data (2016–2018 camera trapping) and its failure to consider recent sightings violate this obligation. Ignoring the confirmed 2024 sightings underscores how the agency is not meeting this standard, as well as not taking a "hard look" under NEPA.

While the Forest Service continues to deny the presence of lynx, the Vermont Fish and Wildlife Department claims these sightings as a crowning achievement indicating responsible land management. According to Brehan Furfey, furbearer biologist with the department, "Vermonters can be proud that decades of land protection and management for connected habitats have allowed this rare wild cat to make its way through our state. It's a sign that conservation is working."[146] Yet the TGIRP threatens to undo this progress by degrading one of the largest

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[140] *See* Ike Bendavid, *Wildlife Watch: Tracking the rare Canada lynx in Vermont*, WCAX (Oct. 8, 2024), https://www.wcax.com/2024/10/08/wildlife-watch-tracking-rare-canada-lynx-vermont/ (last visited Jan. 13, 2025) (Quoting Conservation Planner Jens Hawkins-Hilka "I think this is absolutely a success story. It speaks to connected habitats across Vermont that this lynx is able to survive and move between forest blocks looking for mates looking for new habitat and new opportunity is a tremendous success story. It speaks to what we have here in Vermont is something special. We are still enjoying connected habitat. Let's maintain what we have got[.]").

[141] Revised Wildlife Biological Evaluation at 17 ("Appendix 1. *Likelihood of Occurrence for Federally-Listed Endangered and Threatened Species in the Telephone Gap Integrated Resource Project Area*").

[142] Revised Wildlife Biological Evaluation at 29. ("Tumosa, J. 2001f. *Species Data Collection Form for Lynx canadensis.* Revised by D. Batchelder, 2002. Unpublished, US Department of Agriculture, Green Mountain National Forest, Rutland, VT.").

[143] *Endangered and Threatened Animals of Vermont,* VERMONT NATURAL HERITAGE INVENTORY (VT FWD 2022), https://vtfishandwildlife.com/conserve/endangered-and-threatened-species (last visited Jan. 13, 2025).

[144] Revised Wildlife Biological Evaluation at 17.

[145] Lynx Conservation Assessment and Strategy (USDA 2nd ed. Aug. 2000) at 94, https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5165939.pdf.

[146] *Rare Canada Lynx Sightings Continue, Evidence of Habitat Conservation Success,* VT FWD (Oct. 4, 2024) https://vtfishandwildlife.com/press-releases/rare-canada-lynx-sightings-continue-evidence-habitat-conservation-success

unfragmented forested areas remaining in the region. The Canada lynx relies on unfragmented forest corridors for survival and movement. Logging, road construction, and other Project activities will fragment one of the last unbroken forested areas in the region, making it more difficult for lynx to travel, hunt, and establish territory. A document containing management guidelines for lynx habitat, co-produced by the Forest Service, University of New Hampshire, and other organizations, states that "Foresters, landowners, and other land managers can follow…specific management recommendations," including: "Minimize human disturbance in areas where lynx have been sighted or are likely to occur. Continued expansion of recreational activity, roads, and other disturbance in potential lynx habitat will likely hamper lynx recovery."[147]

The Forest Service's refusal to evaluate these impacts, including its failure to objectively and comprehensively evaluate alternatives that would eliminate impacts to roadless areas or mature and old-growth forests that benefit lynx and other species, violates NEPA and undermines the ESA's conservation mandate. Since Canada lynx are a threatened species, the Forest Service cannot dismiss their presence without initiating a formal consultation process with the USFWS.[148] This consultation would assess the Project's potential impacts on the lynx and its habitat.

In light of recent sightings, the Forest Service's "No Effects"[149] determination for the Canada lynx is arbitrary and capricious. The confirmed sightings in the Project vicinity from August to November 2024 constitute new information that was not considered in the Biological Evaluation or Final EA. This information triggers the obligation to initiate or reinitiate consultation under 16 U.S.C. § 1536(a)(2) and 50 C.F.R. § 402.16(a).

b. The Analyses and Protections for the Endangered Northern Long-eared Bat Are Deficient.

The GMNF is home to a variety of rare and sensitive bat species. Standing Trees has extensively covered its concerns about Project impacts to these species in both of our prior submitted comments.[150] The concerns persist here as the Final EA does not provide sufficient detail or scientific evidence to justify its conclusion that the TGIRP will have no significant impact on the endangered Northern Long-Eared Bat (NLEB). These bats rely heavily on mature forest habitats for roosting and foraging, and the removal of mature and old-growth forests will directly threaten their survival in the Project area. Despite acknowledging the presence of suitable habitat, the EA minimizes Project impacts by assuming that prescribed mitigation measures will suffice. While the EA mentions protective measures for NLEB, it does not sufficiently address the species' long-term recovery or effectiveness of those measures given their endangered status, especially considering the impact of white-nose syndrome. The Final EA relies on general mitigation measures, such as seasonal restrictions on timber harvests, but fails to provide site-specific data to demonstrate their effectiveness. This omission violates NEPA's "hard look" requirement,

[147] Rare Wildlife of New Hampshire: Canada Lynx. US Forest Service et al 1998 (Exhibit 11).
[148] 16 U.S.C. § 1536(a)(2).
[149] Revised Wildlife Biological Evaluation at 8.
[150] Scoping Comments at 37-41; Preliminary EA Comments at 27–29.

which mandates a thorough evaluation of environmental impacts and the adequacy of mitigation measures. An EIS is required to rectify this incomplete evaluation of the impacts of TGIRP on the endangered NLEB, especially regarding habitat loss and the adequacy of protective measures.

The reliance on general "best management practices," such as seasonal restrictions on timber harvests, does not meet NEPA's "hard look" requirement. The Forest Service's analysis lacks site-specific data and fails to consider cumulative impacts from regional deforestation and habitat degradation and fragmentation. Furthermore, the Final EA's reliance on outdated survey data—with no recent or comprehensive surveys of NLEB populations—renders its conclusions questionable at best. Acoustic surveys conducted in the Project area indicate the presence of the NLEB, yet the Forest Service has not reconciled this evidence with its conclusions. Moreover, the decision to permit logging outside the permissible season due to shortened winters caused by climate change exemplifies irrational circular reasoning: using climate change as a justification to exacerbate climate impacts.[151] The Forest Service fails to take a hard look at how summer logging under the TGIRP could impact bats in the area, planning instead to conduct future surveys purportedly to limit incidental take.[152] It is premature to conclude that the proposed activities are unlikely to affect bat populations when these impacts have yet to be sufficiently assessed.

c. The Forest Service Failed to Take a "Hard Look" at the TGIRP's Impacts to Other Wildlife Species.

Beyond impacts to listed species, the Forest Service has failed to take a hard look at how the TGIRP will affect biodiversity more generally. In today's climate crisis, it is not just sensitive species that deserve our consideration and concern but all wildlife. In July 2022, the USDA Forest Service released an agency-specific Climate Adaptation Plan (CAP) in response to EO 14008– *Tackling the Climate Crisis at Home and Abroad.* Amongst the supporting activities for improving ecosystem resilience, the CAP advises helping "wildlife populations adapt to climate change by increasing redundancy and heterogeneity of habitat, decreasing other stressors, and improving connectivity."[153] The TGIRP proposes management activities that are inconsistent with these CAP objectives, as management activities like logging serve to replicate impacts that are common and ongoing across private lands in Vermont, reducing habitat heterogeneity at the landscape scale, increasing forest fragmentation, creating vectors for invasive species, and simplifying ecosystems such that they are less resilient and support fewer species.

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[151] Revised Wildlife Biological Evaluation at 8-9 ("Reductions in the number of days when the ground is frozen or covered by snow has led to timber harvesters having fewer days per winter to operate. In an effort to allow the most flexibility for management activities proposed in Telephone Gap IRP some activities will be considered for summer/dry season opportunity.").

[152] *Id.*

[153] USDA FOREST SERV., FS-1196, CLIMATE ADAPTATION PLAN 36 (2022), https://www.usda.gov/sites/default/files/documents/4_NRE_FS_ClimateAdaptationPlan_2022.pdf.

The Forest Service claims that it is, in fact, improving habitat diversity through the creation of early successional habitat.[154] However, its analysis fails to account for early successional habitat already being created through natural processes on both public and private lands within the Project area, and it fails to account for early successional habitat that is created through active management other than even-aged treatments.[155] The Forest Service has known about the many costs associated with logging to create artificial habitats for decades. Among many other issues raised, a 1993 White House Council Environmental Quality report noted:

> managing for maximum diversity may actually impoverish natural biodiversity. For example, introducing small-scale habitat disturbances might increase local biodiversity by favoring the spread of opportunistic 'weedy' species. However, the same activity may decrease the available habitat for species at risk regionally, and regional or global biodiversity may be diminished… The creation of forest openings and edge habitat favoring game species is now recognized as causing severe impacts to interior forest dwelling species.[156]

Thus, the Forest Service has failed to show a need for artificial creation of early successional habitat type and failed to take a hard look at how these management activities will impact the ecosystem and biodiversity as a whole, much less specific threatened and endangered species. Standing Trees raised these issue previously in its Comments on Preliminary EA, arguing that the "project's age class goals do not match the latest scientific understanding of the ecology of New England forests."[157]

As these inaccuracies and gaps in analysis persist in the Final EA, we continue to object on these grounds. The Final EA does not adequately assess how the TGIRP activities will fragment forest ecosystems, reduce habitat connectivity, or impact overall biodiversity. These omissions violate NEPA's "hard look" standard. An EIS is required to evaluate how the TGIRP could impact regional biodiversity and to ensure consistency with federal climate and conservation policies.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP to wildlife, including, but not limited to, evaluating new evidence related to the presense of Canada lynx in the Project area.

4. The Forest Service Failed to Take a Hard Look at the TGIRP's Impacts to Roadless Areas.

The Forest Service's Draft Decision will allow harvest of "slightly less" than 1,776 acres within the Pittenden inventoried roadless area (IRA).[158] The Forest Service acknowledges the harvest

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[154] Revised Wildlfe (Nov. 2024) at 3 ("Habitat diversity would be increased by improving the composition and age class structure of forest stands; enhancing habitats by increasing regenerating forests (0-9 years old), increasing limited aspen and paper birch, and oak habitat enhancement.").
[155] *See* Section I.A.1.e, *supra*.
[156] COUNCIL ON ENV'T QUALITY, INCORPORATING BIODIVERSITY CONSIDERATIONS INTO ENVIRONMENTAL IMPACT ANALYSIS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 1, 18 (1993) (Exhibit 13).
[157] Preliminary EA Comments at 11.
[158] EA at 120; Draft Decision at 19–20.

and road construction will have adverse effects on the roadless character within the Pittenden IRA.[159] In its Scoping Comments, Standing Trees notified the Forest Service of several concerns regarding the TGIRP's impacts on GMNF roadless areas.[160] Standing Trees reiterated its concerns in its Comments on the Forest Service's Preliminary EA after that analysis failed to take a hard look at TGIRP's significant impacts on roadless areas, despite Standing Trees identifying those impacts.[161]

The Forest Service's Final EA contains no new analysis addressing Standing Trees' concerns, or that would otherwise satisfy its NEPA hard look obligations. Rather, the Draft Decision concludes, without any supporting explanation or analysis, that the harvest treatments and road construction in the Pittenden IRA "will not alter the roadless character of the Pittenden roadless area to a degree that would preclude it from consideration as an inventoried roadless area and evaluated for wilderness capability during the next Forest Plan revision planning process."[162] Such conclusory statements do not satisfy NEPA's hard look requirement.

Moreover, whether the TGIRP will impact its consideration for future wilderness designation is only one aspect of the Project's significant impacts on the Pittenden IRA. As Standing Trees noted in its Comments on the Preliminary EA, the Forest Service "fails to consider the value of protecting Pittenden for the roadless-associated values that the Forest Service has previously recognized for this specific area."[163] Given NEPA's purpose, perhaps the most critical factor in supporting the preparation of an EIS is the "[u]nique characteristics of the geographic area such as proximity to . . . ecologically critical areas."[164] At a minimum, impacts to the unique characteristics and qualities of the Pittenden Inventoried Roadless Area must be objectively and comprehensively analyzed per NEPA's hard look requirement, regardless of the area's suitability for future wilderness inventory and evaluation. The fact that the Forest Service continues to ignore this requirement conveys that the Forest Service must conduct an EIS for the TGIRP.

Accordingly, Standing Trees reiterates its objection to the TGIRP on the basis of the Project's impacts on roadless areas. Specifically, the Forest Service has failed to take a hard look at the TGIRP's significant direct, indirect and cumulative impacts on roadless areas in the GMNF.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP to roadless ares in the GMNF.

5. The Forest Service Failed to Take a Hard Look at the TGIRP's Impacts to Water Quality.

[159] Draft Decision at 19.
[160] Scoping Comments at 25–27.
[161] Preliminary EA Comments at 21–23.
[162] Draft Decision at 19–20.
[163] Preliminary EA Comments at 22.
[164] 40 C.F.R. § 1508.27(b)(3) (2019); *see Friends of the Earth, Inc. v. U.S. Army Corps of Engineers*, 109 F. Supp. 2d 30, 42–43 (D.D.C. 2000) (rejecting the U.S. Army Corps' characterization of St. Louis Bay as not ecologically critical because it is "one of the largest expanses of relatively undisturbed marsh within Mississippi").

In its Scoping Comments, Standing Trees raised concerns regarding the TGIRP's negative impacts on water quality in and downstream of the Project area.[165] When the Forest Service failed to take a hard look at impacts to water quality in its Preliminary EA, Standing Trees reiterated its concerns, specifically regarding impacts on downstream waterbodies, impacts on water retention and soil erosion, and impacts on flood risk.[166]

The Draft Decision acknowledges the Project will have "adverse effects" to aquatic resources, but then claims those adverse effects "are below unacceptable thresholds with the application of Forest Plan forest-wide and management area standards and guidelines, and project specific design features and mitigation measures."[167] For support for this proposition the Draft Decision cites the Forest Plan, Chapters 2 and 3, and the TGIRP's Final EA, Appendices A and B.[168] But neither of these sources support the Forest Service's claim because they do not discuss current conditions of aquatic resources within the Project area and therefore it is impossible to know whether the additional acknowledged adverse effects of the Project will cause those resources to cross "unacceptable thresholds." By definition, the Forest Plan cannot contain any discussion of current conditions because (1) that is not what the Forest Plan was intended to do and (2) it is a 2006 document, which is now four years overdue for updating. Forest Plan Chapters 2 and 3 set forth the goals and objectives and standards and guidelines for management of the GMNF, but those directives still need to be applied to current, or baseline, conditions. The Forest Service has not done that analysis.

As Standing Trees pointed out in its Scoping Comments, while the Forest Service vaguely indicated in a 2021 public meeting that aquatic habitat in the Project area was in "generally" good condition, that claim was not supported by data and does not withstand scrutiny.[169] Standing Trees urged the Forest Service to "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."[170] A key component to such analysis is a complete understanding of the baseline conditions of aquatic resources, which does not exist for this Project.

One specific example of the Forest Service's lack of thorough, or even basic analysis, relates to instream water temperature impacts. In its Comments on the Preliminary EA, Standing Trees noted the Forest Service made only a glancing reference to water temperature, despite the fact that increasing ambient air temperatures due to climate change are expected to result in increases to stream temperatures, which would be further exacerbated by logging, both due to removal of tree canopy and erosion effects.[171] The only apparent change from the Preliminary EA to the

[165] Scoping Comments at 53–57.
[166] Preliminary EA Comments at 23–27.
[167] Draft Decision at 19.
[168] *Id*.
[169] Scoping Comments at 53–54.
[170] *Id*. at 24.
[171] Preliminary EA Comments at 25.

Final EA related to water temperatures was the inclusion of the following conclusory and unsupported paragraph:

> Surface water temperatures are not expected to be measurably impacted by any of the action alternatives due to harvest restrictions within protective buffers of surface water sources that would retain adequate stream-shading canopy cover. Protective buffers around surface water sources along with limitation of harvest on steep and shallow soils along with measures that would reduce soil disturbance would be expected to adequately minimize hillslope erosion (including mass wasting) and delivery of sediment to surface water sources.[172]

In addition to being vague and conclusory, this paragraph only discusses proposed mitigation measures and does not evaluate any current conditions. Essentially, it treats all aquatic resources within the Project area as the same without examining whether some are more vulnerable than others, provide more high-quality habitat for sensitive species, or will experience more cumulative effects from the proposed Project, among other potential differences. Aquatic resources within the Project area are not identical, including the specific species (such as brook trout or salamanders) supported by individual streams and waterbodies, so in order to take the "hard look" at the Project's impacts that NEPA requires, the Forest Service must better understand the baseline conditions for site-specific aquatic resources.

Such an understanding of baseline conditions is crucial in a world constantly affected by climate change. The Forest Service's analysis of aquatic resources related to flooding is an example of the agency's failure to adapt to the changing climate, despite acknowledging that the frequency and intensity of floods "have and will continue to alter forests due to human-induced climate change."[173] In its comments, Standing Trees highlighted Vermont's recent susceptibility to more frequent and severe flooding as a result of climate change.[174] Between the time of Standing Trees' Comments on the Preliminary EA in April 2024 and the Forest Service's issuance of the Final EA in July 2024, Vermont experienced an additional period of catastrophic flooding, including multiple storms that required the Governor to declare a State of Emergency.[175] Despite this significant risk, the Final EA does no analysis of site specific conditions in the Project area for their susceptibility to flooding, relies on an outdated Forest Plan that did not have the benefit of establishing standards and guidelines under the current climate change induced flood regimes, and cites to design features and mitigation measures in Appendices A and B of the Final EA that do not mention flooding at all.[176]

Apparently in response to Standing Trees' comments, the Forest Service added some cursory analysis of the increase in phosphorous load within Otter Creek upstream of Lake Champlain.[177] As an initial matter, as Standing Trees pointed out in its comments, the Lake Champlain TMDL

[172] Final EA at 93.
[173] Final EA at 57.
[174] Scoping Comments at 19; Preliminary EA Comments at 26–27.
[175] *See* https://www.vermont.gov/flood#gsc.tab=0 (last visited Jan. 6, 2025).
[176] Final EA at 91 (claiming Appendices A and B support the proposition that "[o]verall effects associated with watershed function (including flooding regimes) . . . would be minimal").
[177] Final EA at 95.

requires about a 5% reduction in phosphorous from forests in the Otter Creek Basin.[178] It is unclear how a Project that the Forest Service admits will increase the phosphorous load from the Otter Creek Basin complies with a TMDL that requires a reduction in phosphorous load from that basin and the Forest Service provided no explanation for this inconsistency. Just calling the increase "negligible relative to impacts from all other land uses and phosphorous sources" does not explain how the Project complies with a TMDL that requires reducing the phosphorous load. The Final EA also does not analyze the cumulative effects of the phosphorous load from all of the other land uses and sources it references. Thus, despite acknowledging the existence and relevance of the Lake Champlain phosphorous TMDL, the Forest Service fails to determine the Project's compliance with that TMDL.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP to water quality.

6. The Forest Service Failed to Take a Hard Look at the TGIRP's Impacts from Prescribed Fire Treatments.

The Forest Service has failed to adequately analyze or justify the prescribed fire treatments proposed under the TGIRP. The Project includes plans for prescribed burning across 963 acres at intervals of three years over a 15-year period, resulting in a total of nearly 5,000 acres affected. This proposed burn frequency far exceeds the region's natural fire disturbance regime, which the the Forest Service itself categorizes as "very infrequent" in the GMNF Plan.[179] Furthermore, the GMNF is projected to have "very low" "exposure of inventoried mature and old-growth forests to moderate- to high-severity fire" throughout the middle to end of the present century, according to the Forest Service's Threat Analysis published in June 2024.[180] Despite this, the Final EA offers no scientific rationale, wildfire risk analysis, or justification for deviating from both natural fire regimes and the Forest Service's own management guidelines. Standing Trees raised this issue in prior comments, asserting that the Forest Service failed to take the requisite hard look, impacts "are unknown and likely significant, and an EIS is required."[181] The Final EA's unchanged conclusions—despite Standing Trees' comments—demonstrate that the agency has neither resolved these concerns nor provided additional evidence to substantiate its FONSI. As the Draft Decision approves the Project without addressing these deficiencies, Standing Trees continues to object on these grounds.

The lack of analysis and justification for prescribed fire treatments is particularly concerning given the potential ecological and environmental consequences. The Final EA claims that prescribed burning will enhance oak habitat but does not provide site-specific data or analysis to

[178] Scoping Comments at 54 (citing Phosphorous TMDLs for Vermont Segments of Lake Champlain); Preliminary EA Comments at 24.
[179] GMNF Plan at 49 (disturbance regime includes "very infrequent fire" in wilderness areas)
[180] U.S. FOREST SERV., & BUREAU OF LAND MGMT., FS-1215C, MATURE AND OLD-GROWTH FORESTS: ANALYSIS OF THREATS ON LANDS MANAGED BY THE FOREST SERVICE AND BUREAU OF LAND MANAGEMENT IN FULFILLMENT OF SECTION 2(C) OF EXECUTIVE ORDER NO. 14072, at 18 fig. 3 (2024) (Exhibit 8).
[181] Preliminary EA Comments at 35-36.

support this assertion, or the costs associated with burning. Without a rigorous analysis, the Forest Service's decision-making process lacks credibility and fails to meet NEPA's standards.

The Final EA also fails to adequately address the environmental and public health risks associated with prescribed fires. The release of particulate matter and greenhouse gases from these burns has not been fully quantified, which violates NEPA's requirement to disclose and analyze such impacts. Furthermore, prescribed fires also "decrease carbon stocks in the forest floor" by damaging soil integrity, a fact trivialized by pointing out that "fire impacts tend to be smaller in prescribed fires than in wildfires."[182] This comparison is both arbitrary and misleading without additional context, such as the likelihood of wildfire occurrence in the region. According to the Forest Plan, natural fire disturbance is described as "very infrequent" in the GMNF,[183] whereas the prescribed burning of nearly 5,000 acres at regular intervals is a forgone conclusion if this Project were to move forward

Public safety risks are similarly underexamined in the Final EA. The analysis omits any consideration of the potential for fire containment failures, particularly in light of increasingly unpredictable weather patterns caused by climate change. Without addressing these risks, the Forest Service has left a critical gap in its assessment of public safety impacts. The Final EA fails to provide a thorough analysis of the trade-offs involved, leaving key questions unanswered about their necessity, appropriateness, and long-term consequences.

An EIS is required to rectify these deficiencies. The Forest Service must evaluate whether prescribed fire treatments are necessary or appropriate given the region's natural fire regimes and ecological needs. The EIS must include a detailed analysis of potential environmental trade-offs, including cumulative impacts on carbon emissions, soil health, and public safety. Finally, the Forest Service must assess alternative management strategies that could achieve Project goals without significant environmental and public health impacts. Without these comprehensive evaluations, the TGIRP's prescribed fire treatments remain speculative, unjustified, and potentially harmful, failing to comply with NEPA's procedural and substantive requirements.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP from prescribed fire treaments.

7. The Forest Service Failed to Take a Hard Look at the TGIRP's Potential for Spread of Non-Native Invasive Plant Species.

The Forest Service has failed to adequately analyze the impacts of the TGIRP on invasive species or explain how the Project aligns with its obligation to manage invasive species under applicable laws and policies. Over the years, infestations of invasive non-native plant species have significantly increased within the GMNF, highlighting the urgent need for effective prevention, monitoring, and management measures. Despite this growing problem, the Final EA does not provide a thorough analysis of how TGIRP activities, such as road construction and timber harvesting, may exacerbate these infestations or introduce new invasive species. As

[182] Final EA at 73.
[183] GMNF Plan at 49.

Standing Trees emphasized in prior comments,[184] the Forest Service must address the risks associated with invasive species with greater specificity and commitment. The Final EA's failure to resolve these concerns leaves this issue unaddressed and requires further review.

The TGIRP's proposed activities—particularly road construction, timber harvesting, and prescribed fire treatments—create conditions that are highly conducive to the spread of invasive non-native plant species. Disturbances to the soil and vegetation caused by these activities provide ideal opportunities for invasive species to establish and outcompete native flora. A 2017 meta analysis found that "The most consistent effect of the [thinning and burning] treatments was the increase in non-native species following mechanical thinning and reduction in shrub cover following a burn."[185] While the Final EA acknowledges this risk, it does not adequately analyze the likely extent of these impacts or provide a comprehensive plan to mitigate them. For example, the Forest Service relies on generic best management practices (BMPs), such as cleaning equipment and reseeding disturbed areas, but does not include any project-specific data or detailed protocols for their implementation. But the Forest Service failed to demonstrate such practices would be effective, especially in heavily disturbed areas like those anticipated under the TGIRP, particularly when baseline conditions for invasive species are not well-documented, as is the case here.

The Forest Service's superficial analysis constitutes a failure to meet NEPA's "hard look" requirement, which mandates a thorough evaluation of environmental impacts and mitigation measures. A critical flaw in the Final EA is its lack of baseline data regarding existing invasive species infestations in the Project area. Without a clear understanding of current conditions, the Forest Service cannot effectively assess the potential for TGIRP activities to worsen existing infestations or introduce new invasive species. Additionally, the Final EA does not analyze cumulative impacts from invasive species spread across the region, nor does it provide any evidence that the proposed mitigation measures will be effective in the specific context of the GMNF.

The TGIRP's deficiencies also conflict with broader legal and policy obligations to address invasive species. Executive Order 13751, "Safeguarding the Nation from the Impacts of Invasive Species," requires federal agencies to prevent the introduction and spread of invasive species and to prioritize ecological resilience.[186] Similarly, the Forest Service Manual 2900 establishes detailed guidelines for managing invasive species, including requirements for site-specific invasive species management plans.[187] The Final EA fails to comply with these mandates by neglecting to develop a robust, enforceable invasive species management plan tailored to the GMNF. Without such a plan, the TGIRP risks noncompliance with these directives and jeopardizes the ecological integrity of the forest.

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[184] Scoping Comments at 57–60; Preliminary EA Comments at 31–34.
[185] Willms et al., "The Effects of Thinning and Burning on Understory Vegetation in North America: A Meta-Analysis." (2017) (Exhibit 14) https://doi.org/10.1016/j.foreco.2017.03.010.
[186] Exec. Order No. 13751 of Dec. 5, 2016 "Safeguarding the Nation from the Impacts of Invasive Species," 81 Fed. Reg. 88,609 (Apr. 27, 2022) (Exhibit 17).
[187] USFS Manual 2900 (Invasive Species Management), Amendment 2900-2011-1 (Dec. 5, 2011).

An EIS is required to address these shortcomings and ensure compliance with NEPA, EO 13751, and the Forest Service Manual. The EIS must include a detailed invasive species management plan with enforceable monitoring protocols and site-specific mitigation strategies, baseline data on existing infestations within the project area to assess the effectiveness of proposed measures, and a comprehensive analysis of cumulative impacts from invasive species spread across the region. Without these critical analyses and commitments, the Forest Service cannot credibly claim that TGIRP will not result in significant environmental harm. The Project must not proceed until these deficiencies are resolved and a thorough evaluation of invasive species risks is conducted in compliance with federal laws and policies.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP on the potential for spread of non-native invasive plant species.

8. The Forest Service Failed to Take a Hard Look at the TGIRP's Impacts to Soil Resources.

In its Scoping Comments, Standing Trees raised concerns about impacts to soil resources from the TGIRP.[188] Ensuring protection and restoration of soils within the GMNF is consistent with the Forest Plan that calls for managing the forest "in a manner that perpetuates an abundance of clean water and the maintenance of productive soils."[189] Specifically, Standing Trees noted that the Forest Service only planned to "[i]mprove soil conditions with erosion control and soil restoration on up to 6.5 miles of existing non-system woods roads" even though the Project area contains an abundance of sensitive soil types and severe or very severe off-road erosion hazards. And as with its deficient analysis of impacts to other resources, in discussing impacts to soil resources, the Forest Service identifies thresholds of acceptable impacts that are either arbitrary or, at a minimum, unexplained.[190]

In its comments on the Preliminary EA, Standing Trees reiterated its concerns that the Forest Service did not take a hard look at impacts to soil resources.[191] The Forest Service did not change or supplement its analysis in its Final EA; accordingly, Standing Trees' objections remain.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP to soil resources.

9. The Forest Service Failed to Take a Hard Look at the TGIRP's Impacts to Recreational Values.

a. The Forest Service Failed to Take a Hard Look at the TGIRP's Significant Impacts from Hut Construction, Use and Maintenance.

[188] Scoping Comments at 56–57.
[189] GMNF Plan at 9; *see also id*. at 13 (listing Goal 3 of the Plan: "Maintain or restore the natural, ecological functions of the soil.").
[190] Final EA at 95–97 (Table 3-34, lising issues, indicators, and thresholds of concern for soil effects).
[191] Preliminary EA Comments at 25–26.

Standing Trees noted that the proposed South Pond hut construction was inconsistent with the Forest Plan and other Forest Service policies in Scoping Comments[192] and that the Forest Service had failed to take a hard look at the TGIRP's significant impacts from hut construction, use and maintenance in its Comments on the Preliminary EA.[193] The Forest Service made no changes to the hut construction component of the Project in the Final EA. Accordingly, Standing Trees' reiterates its objection to the TGIRP on the basis of the Forest Service's failure to sufficiently analyze the impacts of the South Pond hut construction, use and management, as set forth in its earlier comments.

b. The Forest Service Failed to Take a Hard Look at the TGIRP's Significant Impacts to Other Recreational Values.

It appears likely from what Standing Trees can discern from publicly available maps, that the TGIRP's planned expansion of the Velomont Trail also will impact the Pittenden IRA in ways the Forest Service has not fully analyzed. Standing Trees raised its concerns about the Forest Service's failure to analyze impacts of the Velomont Trail in its prior comments.[194] As Standing Trees noted, it is entirely foreseeable—and, in fact, explicitly stated—that the trail development proposed by the TGIRP will be accompanied by extensive trail development across Vermont. Because some of the development has already been approved in prior Forest Service actions[195] and is reasonably foreseeable and is intended specifically to connect with the Velomont trail development in the TGIRP, the Forest Service must conduct a cumulative impacts analysis of the entire planned trail system's impacts. In other words, the Forest Service cannot minimize the impacts of the trail expansion of the TGIRP by improperly segmenting that portion of the reasonably foreseeable Velomont trail for analysis. Agencies improperly segment NEPA analyses where they divide a large project into smaller parts to avoid having to complete an EIS.[196] Moreover, the plans for the Velomont contemplate a "hut-supported trails system,"[197] to the extent any further hut construction and development is planned that may impact the Pittenden IRA, such development would be inconsistent with the GMNF Plan, which limits the construction of new recreational facilities "to those needed for resource protection."[198]

Additionally, as outlined in Standing Trees' prior comments, the Forest Service has failed to take a "hard look" at the TGIRP's impacts to visual resources and recreational opportunities.[199] While the Final EA contains some analysis of these issues, it suffers from the same flaws found

[192] Scoping Comments at 45–48.
[193] Preliminary EA Comments at 29–31.
[194] Scoping Comments at 45; Preliminary EA Comments at 39.
[195] *See* Robinson Integrated Resource Project (Dec. 7, 2018).
[196] *See Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976) ("[o]nly through comprehensive consideration of pending proposals can the agency evaluate different courses of action."); *see also Alpine Lakes Protection Society v. Schlapfer*, 518 F.2d 1089, 1090 (9th Cir. 1975) (per curiam) (stating that "[c]haracterizing any piecemeal development of a project as 'insignificant' merits close scrutiny to prevent the policies of NEPA from being nibbled away by multiple increments, no one of which may in and of itself be important enough to compel preparation of a full EIS.").
[197] Preliminary EA Comments at 39.
[198] GMNF Plan, Diverse Backcountry Recreation Standard S-1, at 59.
[199] Scoping Comments at 41–44.

elsewhere for the Project: vague thresholds for effects determinations and internally inconsistent conclusions. For example, the Forest Service claims that visual effects of the Project would "no longer be evident to casual forest visitors,"[200] but the agency never defines what a "casual forest visitor" is or why that type of visitor was chosen as the measuring stick versus outdoor enthusiasts or bird watchers, for example. The Forest Service then contradicts itself by acknowledging that "limited evidence of older timber harvest activity may be noticeable within the interior of the project," even though there have been no timber harvests in the Project area in the past 20 years, confirming the common sense notion that visual impacts of large-scale logging projects last beyond 15 years.[201] Finally, the Forest Service uses the remarkable justification for not choosing Alternative A that it might result in "growing public expectations for naturalness and remoteness throughout the Project area,"—desired conditions that the Forest Plan calls for in these areas—but that this might cause the public to have a "higher sensitivity" toward future projects.[202] In other words, apparently, the Forest Service cannot choose the No Action alternative now because it might make it harder for the agency convince the public about unknown logging projects in the future. Such speculative justification does not meet NEPA's "hard look" standard. Moreover, it is hypocritical for the agency to base decisions on the likelihood of future projects when it has excluded future project activities from its cumulative effects analysis for allegedly being "too speculative."[203] The agency cannot selectively acknowledge future management only when doing so suits its preferences.

Requested Remedy: The Forest Service must conduct an EIS to fully and sufficiently evaluate the direct, indirect and cumulative impacts of the TGIRP to the recreational values of the GMNF.

B. The Final EA Failed to Adequately Analyze Cumulative Effects of the TGIRP in Several Contexts.

The Final EA defines cumulative effects as those effects "disclosed from other past, present, or reasonably foreseeable future actions on National Forest System and non-National Forest System lands that may overlap in time and space with direct and indirect effects."[204] Standing Trees identified many aspects of the TGIRP for which the Forest Service was required to undertake a cumulative effects analysis, including increased logging in the GMNF, effects on carbon storage, road construction, and effects of hut construction, new trails and future maintenance.[205] In its Comments on the Preliminary EA, Standing Trees reiterated its concerns about the Forest Service's faulty cumulative effects analyses of separate portions of the Project as well as the TGIRP as a whole.[206]

[200] Final EA at 112.
[201] Final EA at 113.
[202] Final EA at 113.
[203] Final EA at 53
[204] Final EA at 31.
[205] Scoping Comments at 45 (Velomont trail); 46–48 (hut construction and maintenance); 51 (road construction); 62–67 (carbon storage, increased logging, future maintenance).
[206] Preliminary EA Comments at 24 (water quality); 31 (hut construction); 36–40 (forest habitat, climate, hut construction and maintenance, socioeconomic impacts).

As detailed throughout this Objection, the Final EA has not cured the Forest Service's deficient cumulative effects analysis for the Project as a whole or independent aspects of the Project. Specifically, the Forest Service has not undertaken sufficient cumulative effects analyses for the TGIRP's impacts, including, but not limited to impacts to mature and old growth forests, climate, wildlife, roadless areas, water quality, soil resources, and recreational values, as well as cumulative impacts from prescribed fires and potential spread of invasive species.

Requested Remedy: The Forest Service must conduct adequate cumulative effects analyses for all aspects of the Project and the Project as a whole that fully account for other past, present and future actions on the GMNF and nearby lands.

C. The Final EA Failed to Analyze an Adequate Range of Alternatives.

The Forest Service failed to consider an adequate range of alternatives to the proposed Project. In its Scoping Comments, Standing Trees set forth the Forest Service's obligations under NEPA and its implementing regulations related to consideration of reasonable alternatives, including actually analyzing and considering a "No Action" alternative and not just using a "No Action" alternative to establish baseline conditions.[207] Standing Trees also provided the Forest Service with additional alternatives to consider that would meet the proposed project's purpose and need and comply with the Forest Plan.[208] Importantly, Standing Trees' suggested alternatives included alternatives that would "avoid all roadless area impacts," avoiding impacts to "all mature and old forest," and "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," among other suggested alternatives.[209]

Despite these reasonable alternative recommendations, the Forest Service only considered a narrow band of alternatives and only paid lip service to the "No Action" alternative in its Preliminary EA. Standing Trees again notified the Forest Service that its range of alternatives insufficient.[210] Specifically, all of the alternatives (B, C, and D) other than the "No Action" alternative, which the Forest Service did not seriously consider, still result in impacts to roadless areas, still results in logging of mature and old growth forest, and still group the Project's disparate "needs" together in a way that preemptively forecloses reasonable Project alternatives with less environmental impacts and hinders the public's ability to suggest alternative Project designs.[211]

[207] Scoping Comments at 10–14.
[208] *Id*. at 14–16.
[209] *Id*.
[210] Preliminary EA Comments at 42–44.
[211] *Id*. at 43–44.

The Final EA carried forward the Forest Service's inadequate range of alternatives and the Forest Service did little to address the criticisms of its overly narrow range of alternatives. In addition to not analyzing the many reasonable alternatives suggested by Standing Trees and other commenters, the Forest Service did not consider an alternative that would involve amending the out-of-date GMNF Plan, as Standing Trees recommended.[212] This is a critical failure given the outdated Forest Plan does not meaningfully discuss climate change, much less incorporate current best available science related to climate impacts of logging old and mature forest.[213] The Forest Service's claim that "[m]anagement activities that increase resilience and adaptive capacity to climate change" help meet GMNF Plan goals[214] rings hollow without the development of the standards and objectives necessary to achieve those goals, which the Forest Plan does not contain. Essentially, the Forest Service is making it up as it goes along without the benefit of the robust environmental analysis that an EIS would provide and without the identifiable standards. The Forest Service cannot have it both ways—either it should consider an alternative that involves amending the outdated Forest Plan, or it should prepare an EIS for this Project to fully analyze the climate and other significant impacts. Accordingly, Standing Trees objects to the range of alternatives in the Final EA for the reasons stated above.

Requested Remedy: The Forest Service should complete an EIS to further explore a reasonable range of Project alternatives, including serious consideration of the "No Action" alternative, consideration of an alternative that would update the GMNF Forest Plan, and consideration of the reasonable alternatives recommended by Standing Trees and other commenters.

D. The Purpose and Need Statement Is Legally Deficient Under NEPA, NFMA, and Relevant Executive Orders.

The reasonableness of a purpose and need statement is assessed by considering the "statutory context of the federal action."[215] In this case, the final EA defines the need for the TGIRP in unreasonably narrow terms by ignoring key standards from the Forest Plan. As a result of this inflexibly defined purpose and need statement, the EA necessarily considered an unreasonably narrow range of alternatives. Both the inflexibly defined purpose and need statement and the resulting unreasonably narrow alternatives analysis violate NEPA.[216]

As explained by the court in *Simmons v. U.S. Army Corps of Engineers*, under NEPA, "the first thing an agency must define is the project's purpose."[217] The court went on to explain the importance of properly defining a project's purpose:

> The 'purpose' of a project is a slippery concept, susceptible of no hard-and-fast definition. One obvious way for an agency to slip past the strictures of NEPA is to

[212] *Id*. at 44.
[213] *Id*.
[214] Final EA at 8.
[215] *League of Wilderness Defenders v. U.S. Forest Serv.*, 689 F.3d 1060, 1070 (9th Cir. 2012).
[216] *Nat'l Parks & Conservation Ass'n v. BLM*, 606 F.3d 1058, 1070-72 (9th Cir. 2010).
[217] 120 F.3d 664, 666 (7th Cir. 1997).

> contrive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence). The federal courts cannot condone an agency's frustration of Congressional will. If the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role. Nor can the agency satisfy [NEPA].[218]

In its Scoping Comments, Standing Trees pointed out that "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."[219] The Preliminary EA did nothing to more appropriately define or explain the purpose and need for the TGIRP, or otherwise address the legal deficiencies of the statement, and Standing Trees reiterated its concerns.[220] The Final EA retained the Project's legally deficient purpose and need statement; accordingly Standing Trees' objects to the TGIRP on this ground.

Requested Remedy: The Forest Service should provide a more accurate purpose and need statement that promotes exploration of reasonable alternatives in compliance with the GMNF Plan and Executive Orders 14072 and 14008. The Forest Service should update the GMNF Plan as it is required to do under NFMA. [221]

E. The Public Involvement Process Was Burdened in Violation of NEPA.

Informed and inclusive decision-making and robust public participation are core principles of NEPA. The Forest Service's approach to public participation throughout the TGIRP review process has been marked by lack of access to critical documents and data, confusion about timing, and vague and shifting standards, all of which undermine the transparency and accessibility required by NEPA.[222] Standing Trees raised concerns during both the scoping and preliminary EA phases, emphasizing how delayed document availability, obfuscated analyses, and unaddressed public input hinder meaningful public engagement. These issues persist in the final stages, rendering the Objection period procedurally flawed and necessitating additional, more transparent review.

Standing Trees first raised the issue of lack of transparency during Scoping, asserting that "public involvement has been impeded by the unavailability of relevant supporting documents" resulting in insufficient detail to undertake meaningful analysis of the proposed action.[223] Standing Trees raised concerns about public participation again during the next phase when a deluge of arbitrary data was released in support of the preliminary EA, purporting to provide a detailed analysis while having the actual effect of obscuring the true scope of the Project's

[218] *Id*. at 666.
[219] Scoping Comments at 5–10.
[220] Preliminary EA Comments at 40–42.
[221] 16 U.S.C. § 1604(f)(5).
[222] 40 C.F.R. § 1501.9.
[223] Scoping Comments at 37-41.

impact.[224] Additionally, the Forest Service declined to extend the preliminary EA comment period in order to allow meaningful participation from Vermont indigenous communities, per their explicit request and despite support from various community allies.[225]

The Forest Service hindered the public's ability to provide informed comments on the Project in multiple specific ways. First, the timing of the public objection period effectively limited meaningful participation. Although the DDN and Final EA were dated July 2024 and signed in September 2024, the objection period did not begin until December 3, 2024. This delay, which placed the objection period squarely over the holiday season, effectively curtailed, or at a minimum, placed unnecessary burdens on the ability of stakeholders to provide detailed, substantive feedback. NEPA emphasizes timely public participation,[226] and this delay demonstrates the Forest Service's failure to uphold this mandate. Second, the Forest Service failed to provide critical supporting documents in a timely and accessible manner. As evidenced in Standing Trees' earlier comments, the public was unable to scrutinize key analyses due to their late release or omission. For example, critical wildlife survey updates were not made available until Standing Trees filed a specific Freedom of Information Act (FOIA) request, which revealed recent Canada lynx sightings contradicting the Final EA's conclusions. This withholding of information obstructs informed public participation and violates NEPA's requirement for transparency and full disclosure of relevant environmental impacts. Such practices contravene NEPA's requirement to present information in a clear, accurate, and comprehensive manner.[227]

Requested Remedy: The Forest Service must adequately engage with the public and complete an EIS for the TGIRP to cure the described public participation deficiencies.

II. The TGIRP Is Significant and Requires an EIS.

Given the analysis appearing in the EA and its supporting documents, the Forest Service will not be able to sustain a finding of no significant impact under CEQ regulations at 40 C.F.R. § 1508.27, which illustrates that significance must be determined through analysis of both context and intensity. The impacts of the Project on the immediate Project area are unavoidably significant, as detailed throughout this Objection and in Standing Trees' previous comments. While Standing Trees maintains its position that the Project should be withdrawn entirely, at a minimum, NEPA and the Forest Service's NEPA implementing regulations require an EIS.

"Intensity" under the CEQ regulation refers to the severity of impact and offers several factors for consideration, several of which are implicated by the TGIRP.[228] Taken together, these factors indicate that the project is indeed significant, meriting an EIS. The DDN and FONSI do not

[224] *See* Preliminary EA Comments at 42 ("USFS's strategy of combining so many needs into such a sprawling project undermines the environmental assessment and impairs public participation")
[225] *See* Preliminary EA Comments at 5 ("Vermont Indigenous Communities have requested that the Forest Service extend the comment period on the Preliminary EA and that Allies of Indigenous Communities who are commenting on the Preliminary EA include the language of their request.")
[226] 40 C.F.R. § 1500.1(b).
[227] 40 C.F.R. § 1502.1.
[228] 40 C.F.R. § 1501.3(d).

address the intensity factors for requiring an EIS at all, which, on its face is arbitrary and capricious for at least two reasons. First, FONSI fails to explain why the intensity factors do not apply to this Project, which will have significant adverse impacts that implicate several of the factors, and, if the Forest Service is to be believed, also significant beneficial impacts. Second, the lack of Forest Service analysis of the intensity factors precludes the public from raising informed objections to the Forest Service's reasoning.

Despite the Forest Service's failure to analyze site-specific intensity factors, it is clear that several of them apply here to support an EIS. For example, Standing Trees raised the possibility in its Scoping Comments that the Project would affect "[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."[229] Despite bringing these impacts to the Forest Service's attention during the Scoping period, in its Final EA, the Forest Service acknowledges "[o]nly portions of the proposed project area have been previously surveyed for heritage resources."[230] Those prior surveys have identified 56 recorded heritage sites within the Project area[231], so the likelihood is that the unsurveyed portions of the Project area will also contain culturally important heritage sites. This implicates another intensity factor that supports an EIS, namely "[t]he degree to which the potential effects on the human environment are highly uncertain."[232] The Forest Service does not explain why it did not conduct additional surveys in the Project area to identify cultural and heritage sites after this issue was squarely presented to it in Standing Trees' Scoping Comments almost two years ago.

III. The Project Violates NFMA.

NFMA requires the Forest Service to develop and implement a Forest Plan for each unit of the National Forest System.[233] Projects in each forest must be consistent with its relevant Forest Plan[234] and reviewing courts must be able to reasonably ascertain the Forest Service's compliance with that Forest Plan.[235] The GMNF Plan is nearly 19 years old and beyond this glaring deficiency, the proposed Project fails to meet numerous goals of the GMNF Plan, as detailed above in this Objection.

NFMA constrains the Forest Service timber harvest in the National Forest System to situations where "cuts are consistent with the protection of soil and the regeneration of the timber resources."[236] As discussed in our Comment on the Preliminary EA, and in this Objection at great length, the Project fails to use the latest scientific knowledge. The Project ignores relevant scientific knowledge related to mature and old-growth forests and their importance to building climate resilience. The proposed treatments are not appropriate methods to meet the objectives

[229] Scoping Comments at 61.
[230] Final EA at 123.
[231] *Id*.
[232] 40 C.F.R. § 1501.3(d)(2)(iv).
[233] 16 U.S.C. §§ 1600–1614; 16 U.S.C. § 1604.
[234] *Neighbors of Cuddy Mountain v. Alexander*, 303 F.3d 1059, 1061-62 (9th Cir. 2002); *Great Old Broads for Wilderness v. Kimbell*, 709 F.3d 836, 850 (9th Cir. 2013).
[235] *Native Ecosystems Council v. U.S. Forest Serv.,* 418 F.3d 953, 963 (9th Cir. 2005).
[236] 16 U.S.C. § 1604(g)(3)(E)(i), (F)(v).

and requirements of the GMNF Plan considering the best available science. NFMA empowers responsible officials to "document how the best available scientific information was used" and "explain the basis for that determination,"[237] as high-quality scientific analysis and public scrutiny are essential to NEPA implementation.[238] The TGIRP does not use the best available science based on its failure to analyze and incorporate the conclusions of numerous recent studies and data on forest ecology, biodiversity, forest carbon, water quality, species distribution, and more.

The Forest Service also fails to consider the Project within the greater context of New England, and the importance of the Project area's endangered habitat which provides for species protection and interconnectivity. The Project also will contribute to the degradation of water quality by increasing the phosphorous load within Otter Creek upstream of Lake Champlain rather than reducing that load as required by the Lake Champlain TMDL and the GMNF Plan.[239] For these reasons and the additional ones outlined in this Objection, the TGIRP as currently proposed cannot comply with NFMA.

IV. Statement That Demonstrates the Link Between Prior Substantive Formal Comments Attributed to the Objector and the Content of the Objection

On March 13, 2023, Standing Trees and the Center for Biological Diversity submitted Scoping Comments on the TGIRP Notice of Proposed Action. On April 8, 2024, Standing Trees submitted Comments Regarding the Preliminary Environmental Assessment for the TGIRP. Those comments raised each issue that is raised now in this Objection. Throughout this Objection, Standing Trees has identified through citations to its Scoping Comments and its Comments on the Preliminary EA where the issues now raised in this Objection were raised by Standing Trees in prior substantive formal comments.

V. Conclusion

For the foregoing reasons, we object to the TGIRP. The Forest Service should withdraw the Project. Alternatively, to cure the manifest errors in the Final EA and FONSI, and given the significance of this Project, the Forest Service should prepare an EIS to adequately evaluate the significant impacts posed by the TGIRP. As part of that process, the Forest Service also should update the GMNF Plan as required under NFMA to clarify and protect the outstanding resource value of the Project area. We look forward to hearing from you about your plans to discuss this Objection.

Respectfully submitted,

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[237] 36 C.F.R § 219.3 (2017).
[238] 40 C.F.R. § 1500.1(b).
[239] GMNF Plan, Goal 4 (Maintain or restore aquatic, fisheries, riparian, and wetland habitats.), at 13.

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Exhibits

Number	Exhibit Title
1	Standing Trees & Center for Biological Diversity, TGIRP Scoping Comments
2	Standing Trees & Earthjustice, Comments on TGIRP Preliminary EA
3	Email from Jay Strand, GMNF, to Zack Porter, Standing Trees (Dec. 16, 2024, 12:35PM)
4	USFS, Review of Proposed Projects with No Management in Old Growth Forest Conditions: Telephone Gap Integrated Resource Project (signed by the Deputy Chief July 17, 2024)
5	Email from James Donahey, GMNF, to Zack Porter, Standing Trees (Dec. 16, 2024, 1:38 PM)
6	U.S. FOREST SERV. & BUREAU OF LAND MGMT., FS-1215A, MATURE AND OLD-GROWTH FORESTS: DEFINITION, IDENTIFICATION, AND INITIAL INVENTORY ON LANDS MANAGED BY THE FOREST SERVICE AND BUREAU OF LAND MANAGEMENT IN FULFILLMENT OF SECTION 2(B) OF EXECUTIVE ORDER NO. 14072, at 52 tbl. 17
7	Exec. Order No. 14008, 86 Fed. Reg. 7619, 7627 § 216 (Feb. 1, 2021)
8	U.S. FOREST SERV., & BUREAU OF LAND MGMT., FS-1215C, MATURE AND OLD-GROWTH FORESTS: ANALYSIS OF THREATS ON LANDS MANAGED BY THE FOREST SERVICE AND BUREAU OF LAND MANAGEMENT IN FULFILLMENT OF SECTION 2(C) OF EXECUTIVE ORDER NO. 14072, at 18 fig. 3 (2024)
9	Fiona V. Jevon et al., *Tree basal area and conifer abundance predict soil carbon stocks and concentrations in an actively managed forest of northern New Hampshire, USA*, 451 Forest Ecology and Management 8 (2019)
10	Lucas E. Nave et al., *Land use change and forest management effects on soil carbon stocks in the Northeast U.S.*, 19 Carbon Balance and Management 5
11	Rare Wildlife of New Hampshire: Canada Lynx. US Forest Service et al 1998
12	Vermont Agency of Natural Resources, *Clarifications to Old Forest Ecologically Significant Treatment Areas (ESTA) Eligibility in Use Value Appraisal Program* (May 7, 2021)
13	COUNCIL ON ENV'T QUALITY, INCORPORATING BIODIVERSITY CONSIDERATIONS INTO ENVIRONMENTAL IMPACT ANALYSIS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 1 (1993)
14	Willms et al., "The Effects of Thinning and Burning on Understory Vegetation in North America: A Meta-Analysis." (2017)
15	GMNF, Telephone Gap IRP Full IDT Meeting Notes 5 (Jan. 23, 2024)
16	Donald S. Ross & Meghan E. Knowles, *Partial Harvest Effects on the Forest Floor at Four Northern Hardwood Sites in the Green Mountains of Vermont*, USA, 69 Forest Science 594-95 (2023).
17	Exec. Order No. 13751 of Dec. 5, 2016 "Safeguarding the Nation from the Impacts of Invasive Species," 81 Fed. Reg. 88,609 (Apr. 27, 2022)