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Submitted via: https://cara.fs2c.usda.gov/Public/CommentInput?Project=63401.

Re: Comments of Standing Trees and Sierra Club New Hampshire Regarding Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest

Dear Ranger Brown:

Standing Trees and Sierra Club New Hampshire respectfully submit these comments regarding the U.S. Forest Service's ("Forest Service") Draft Environmental Assessment ("EA") and Finding of No Significant Impact ("FONSI") for the Lost River Integrated Resource Project ("Project" or "Lost River IRP").[1]

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 New Hampshire and Vermont. Standing Trees works to ensure New England's public lands are managed using just and equitable policies and practices to support the region's residents and natural ecosystems. 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 White Mountain National Forest ("WMNF"), including the area impacted by the Project. The Environmental Advocacy Clinic at Vermont Law and Graduate School submits these comments on behalf of Standing Trees.

Sierra Club New Hampshire joins these comments. Sierra Club New Hampshire is a state chapter of the Sierra Club; the most enduring and influential grassroots environmental organization in the United States. Founded in 1992, the NH Chapter is a volunteer run non-profit supporting environmental protections and clean energy solutions. This includes working to ensure New Hampshire's public lands are managed to maximize carbon storage while continuing to provide intact habitat for the state's native biodiversity, and clean water and air. Sierra Club New Hampshire has more than 15,000 members and supporters in New Hampshire. Many of these members and supporters regularly visit and recreate throughout the WMNF, including the

[1] U.S. FOREST SERV., White Mountain National Forest, Pemigewasset Ranger District, Lost River Integrated Resource Project Draft Environmental Assessment and Finding of No Significant Impact (Apr. 2025) (hereinafter "Draft EA"), *available at* https://www.fs.usda.gov/r09/whitemountain/projects/63401.

Project area. Sierra Club New Hampshire joins these comments submitted by the Environmental Advocacy Clinic on behalf of Standing Trees.

INTRODUCTION AND SUMMARY OF COMMENTS

The Forest Service is proposing the Lost River Integrated Resource Project—a substantial logging and recreation project within a Project area of approximately 1,800 acres. The Lost River IRP will significantly affect the southwestern WMNF, a portion of the forest nestled between marvelous Mt. Moosilauke and the stunning Kinsman Notch.

Figure 1: View from Lost River Overlook

A significant percentage of the acreage slated for harvest lies in two Inventoried Roadless Areas ("IRAs") that harbor important headwaters, wildlife habitat, and areas prized for quiet recreation. The Forest Service claims this Project is "needed" because "[a]n analysis of the current habitat conditions indicates that the Elbow Pond and Franconia Notch [Habitat Management Units] ("HMUs")] are not meeting the MA 2.1 habitat composition and age class objectives," and management action is needed to create "species, age class, and structural diversity," which "will benefit wildlife and provide greater options given the uncertainty of changing conditions and invasive species on forest health."[2] The Forest Service also claims that management action is needed to provide "a sustainable yield of high-quality timber products."[3]

[2] Draft EA at 5-6.
[3] *Id.* at 5.

The Forest Service initiated the scoping process for the Lost River IRP in May 2023, holding a single in-person meeting and a 30-day comment period for public feedback on a brief scoping letter dated September 6, 2023. Now, with very few changes to the Project itself, the Forest Service has issued a 48-page Draft EA, along with a document purporting to respond to public comments on the scoping letter and more than two dozen other supporting documents. The Forest Service now has provided only 30 days for the public to review and comment on all these materials and hosted a single public meeting with only ten days of public notice.

The Draft EA repeats the Forest Service's recent failures in other WMNF project reviews to:

- support its contentions of the need for the Project through transparent analysis of the age of the forest stands in the Project area, accounting for the best and most updated science regarding forest and habitat health, climate mitigation and resilience, and water quality;
- properly consider a full range of appropriate and reasonable alternatives, including a true no action alternative;
- consider the many environmental impacts of the Project with the requisite "hard look" under the National Environmental Policy Act ("NEPA"), including profound impacts to Inventoried Roadless Areas ("IRA");
- conduct sufficient analysis of Project impacts on the endangered Northern Long-Eared Bat ("NLEB") and other wildlife;
- complete an Environmental Impact Statements ("EIS") in light of the multiple factors compelling the Service to do so;
- comply with the National Forest Management Act ("NFMA") by rationally justifying deviations from the 2005 WMNF Forest Plan ("Forest Plan")[4]; and
- meaningfully involve the public in its processes.

And here, the Draft EA compounds these errors by irrationally and illegally abandoning the Forest Service's obligation to consider the cumulative impacts of the Project, including by blatantly flouting the requirement to do so with respect to climate change, despite repeated commitments to conduct that analysis in earlier Project documents and numerous references to the Project's supposed benefits in a changing climate.

This Project, as proposed, implicates a host of significant environmental impacts. In particular, the Project will impact nearly a thousand acres of IRAs and their enormous ecological and other values. The Project documentation also admits that the Project's timber harvests are likely to adversely affect the endangered NLEB within the WMNF; indeed, an identified

[4] U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN at 1-21 (Sept. 2005) (hereinafter "WMNF Plan"), *available at* https://www.fs.usda.gov/detailfull/whitemountain/landmanagement/planning/?cid=STELPRDB5199941.

hibernaculum where NLEB may overwinter is only a short distance from timber harvesting the Project would authorize. This puts the Project as currently conceived directly at odds with the Endangered Species Act ("ESA"), the Forest Plan, NFMA, and the Administrative Procedure Act.

The Forest Service should go back to the drawing board on this flawed Project or, at a minimum, conduct a robust, comprehensive, and legally compliant environmental review by preparing an EIS.[5] Any decision to proceed with the Project as proposed without a legally compliant environmental review would run afoul of federal law, result in significant adverse environmental impacts within the Project area and beyond, and be subject to meritorious administrative objections and legal challenges.

These comments renew, elaborate on, and fully incorporate by reference the scoping comments (with all exhibits) Standing Trees previously submitted on October 6, 2023.[6]

DETAILED COMMENTS

I. The Forest Service's Purpose and Need Statement for the Project Is Unsupported by Transparent, Scientifically Rigorous Analysis

NEPA review of the Project depends on a clear and appropriately broad specification of the "underlying purpose and need for the proposed action."[7] The Forest Service Handbook states:

> The purpose and need statement defines the scope and objectives of the proposal. A well-defined purpose and need statement narrows the range of alternatives that may need to be developed in the "alternatives" section. It describes in detail why action is being proposed at that location and at that time. In this way, the purpose and need reflects the difference between the existing condition and the desired condition.[8]

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[5] The Council on Environmental Quality ("CEQ") promulgates regulations implementing NEPA for use by all federal agencies. Those regulations are found at 40 C.F.R. §§ 1500–1508. The CEQ amended its regulations effective September 14, 2020. The CEQ further amended its regulations on May 20, 2022, and again on July 1, 2024. The Draft EA indicates that, following CEQ's purported repeal of all NEPA regulations on April 11, 2025, the Service has been instructed to voluntarily follow the 2020 regulations. Draft EA at 4. This Project was initiated under the 2022 amended version of the CEQ regulations, and the Service has not made clear how this instruction affects the Draft EA. Unless otherwise indicated, these comments cite to the 2022 amended version of the CEQ regulations.

[6] Standing Trees, *Comments of Standing Trees Regarding Scoping Letter for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest*, Oct, 6, 2023 (hereinafter "Standing Trees Scoping Comment").

[7] 40 C.F.R.. § 1502.13; *see also* 36 C.F.R. § 220.5(e); U.S. FOREST SERV., *Forest Service Handbook: 1909.15 – National Environmental Policy Act Handbook, Chapter 20: Environmental Impact Statements and Related Documents* 1, 3-4 (2010) (hereinafter "Forest Service Handbook 1909.15"), https://www.fs.usda.gov/cgi-bin/Directives/get_dirs/fsh?1909.15 (navigate to "wo_1909.15_20_Environmental Impact Statements and Related Documents.doc") (listing the factors to consider when deciding whether to create an EIS).

[8] Forest Service Handbook 1909.15 at 10.

As in other projects, the Forest Service here heavily relies on the Forest Plan's objectives for defining the Project's purpose and need.[9] Yet some components of the Forest Plan (e.g., stand age and habitat type objectives) are both arbitrary and based on erroneous, out-of-date information. Under the circumstances, that means the agency is either not comprehensively utilizing the best and most current science in its planning processes or it is using updated scientific information in the form of non-peer-reviewed "white papers" or guidelines, none of which have been subjected to transparent, public review. Indeed, the Project record here is replete with WMNF-wide "supporting documents" that have never been issued for public comment and that purport to elaborate on Forest Plan requirements in ways that the Forest Plan never decided.

Given the decades of science on forest health and ecology since the Forest Plan, the Forest Service's reliance on the Forest Plan here inappropriately narrows the scope of forest management activities and prevents the Service from accurately considering reasonable alternatives. To comply with NEPA, NFMA, the Forest Plan, and the Service's own Handbook, the Forest Service must prepare a properly informed and rationally supported Purpose and Need Statement for this Project that takes current scientific understandings of forest ecology into account.

A. <u>The Purpose And Need Statement Failed to Consider and Incorporate the Best and Most Current Scientific Understanding of the Benefits of Retaining Mature Forests for Both Carbon Storage and Forest Ecosystem Health.</u>

The Forest Plan guides the Service to diversify habitat types, aiming to increase the presence of spruce-fir habitat types and decrease the presence of northern hardwood and mixed wood habitat types.[10]

Table 1-03. Habitat Composition Objectives.

Habitat Type	**Current Composition** (% of MA 2.1)	**Composition Objective** (% of MA 2.1)
Northern Hardwood	54	45
Mixedwood	21	11
Spruce-Fir	12	32
Aspen-Birch	5	5
Wildlife opening	<1	1
Other*	7	6

*Hemlock forest, oak/pine forest, wetlands, and non-vegetated habitats.

Similarly, the Plan sets age class objectives.[11]

[9] Draft EA at 5 ("This project is needed… to achieve the desired future conditions for wildlife and vegetation described… in the Forest Plan").
[10] WMNF Plan at 1-21.
[11] *Id.*

Table 1-04. Age Class Objectives.

Habitat Type	% in Regen Age Class	% in Young Age Class	% in Mature Age Class	% in Old Age Class
Northern Hardwood	3-4	15-20	61-67	15
Mixedwood	1	5	73	21
Spruce-Fir	1-2	3-6	66-70	26
Aspen-Birch	12-15	36-45	18-30	22

The Forest Plan is 20 years old this September.[12] Besides its expiry date being long past—an abridgement of NFMA's intent[13]—the Forest Plan's objectives for age class and habitat type composition remain static and are grounded in an erroneous understanding of forest ecology management.[14] The Plan anticipated that the achievement of the regeneration age class would be "a short-term objective that should be met during the first decade of implementation."[15] Yet this objective has seemingly taken precedence over other Plan goals.

As is, the Forest Plan's age class goals are well outside the natural range of variability, and fail to consider basic ecological information about the WMNF.[16] Despite acknowledging the small patches and relative scarcity of regeneration age forest (especially aspen-birch) that would naturally occur, as well as the unnatural abundance of regeneration age forest that existed across the Forest Plan analysis area and presumably still exists today, the Forest Plan and Draft EA suggest that significantly more regeneration age and young forest must be created. The Draft EA offers no analysis of how much regeneration age forest exists within the Forest Plan analysis area today, nor how much exists within the relevant HMUs as a whole.

Compounding these oversights, the Forest Service arbitrarily defines "Regeneration Forest Habitat" in the Forest Plan as:

> Forest in which almost all the trees are 0-9 years old with less than

[12] WMNF Plan at i.
[13] 16 U.S.C. § 1604(f)(5); 36 C.F.R. § 219.7(a).
[14] E-mail from Zack Porter, Exec. Dir., Standing Trees, to James Innes, Dist. Ranger, U.S. Forest Serv., and Johnida Dockens, Env't Coordinator (June 16, 2022, 12:53 EST) (Exhibit 1 to Standing Trees Scoping Comment); *see also* Standing Trees, *Comments of Standing Trees and the Wonalancet Preservation Association Regarding Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest*, Aug. 30, 2023, at 4, *available at* https://cara.fs2c.usda.gov/Public/Letter/4475097?project=57392 (hereinafter "Standing Trees Sandwich Comment") (explaining that publishing age class and habitat type composition info is "common practice" for the Forest Service). To "cut down on bulk without impeding agency and public review of the [comment]," Standing Trees is incorporating its Sandwich Comment and other recent prior submissions referenced *infra* into this comment by reference. 40 C.F.R. § 1501.12.
[15] WMNF Plan at 1-21.
[16] *See* Standing Trees Scoping Comment at 5 (citing Standing Trees Sandwich Comment at 6, 8-9 (explaining how the WMNF Plan objectives are "arbitrary, erroneous, and not rooted in past or current conditions.")); Standing Trees, *Objection Pursuant to 36 C.F.R. § 218.8 to Sandwich Vegetation Management Project, Saco Ranger District, White Mountain National Forest* at 46-49, April 1, 2024, *available at* https://cara.fs2c.usda.gov/Public/Letter/4555138?project=57392 (same) (hereinafter "Standing Trees Sandwich Objection").

> 30 square feet of basal area in a mature overstory. Can be created through natural disturbance (e.g. wind, fire) or the following silvicultural treatments: clearcutting, seed tree harvest, and shelterwood harvest to 30 basal area or less or with removal harvest within 10 years of original harvest.[17]

We note that the definition does not appear to be *exhaustive* of the ways in which regeneration age forest, as defined above, can be created, even though the WMNF has suggested that the list is intended to be exhaustive. The definition merely lists *some* of the ways in which these conditions can be created. However, we understand that the WMNF does not count "group selection" harvests towards regeneration age-class objectives,[18] even though these cuts lead to forest regeneration and often resemble small clearcuts. Further, we are not sure whether "patch cuts" or other even-aged management prescriptions *not* included in the above definition count towards regeneration-age forest objectives.

The definition of "Regeneration Forest Habitat" also conflates naturally-created "regeneration forest habitat" with what is created following even-aged management, despite the fact that naturally-created early successional habitat is altogether different in its complexity, scale, and distribution across the forested landscape. The authors of a recent, prominent study describe how complex early successional habitat differs from what is created through timber harvests:

> After a natural disturbance a forest can be a chaotic jumble of dead and damaged trees, downed wood, and tip-ups—many involving immense old trees and their associated biodiversity above and below ground (Lain et al., 2008; Santoro and D'Amato, 2019). In a natural forest, snags and downed logs and uproot mounds and pits are large and enduring for 100 years or more, there are no large areas of bare ground or scarified soil, and downed wood and vegetation remains on site (Foster et al., 2003). After an extreme event, such as a hurricane, there may be abundant advance regeneration, understory vegetation, and a mix of damaged and undamaged trees. These building blocks help the forest recover and resist the intrusion of invasive species (Plotkin et al., 2013, D'Amato et al., 2017). Even forests with almost no advance regeneration can regenerate rapidly after a major disturbance (Faison et al., 2016).[19]

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[17] WMNF Plan Abbreviations, Acronyms, and Glossary at 24.

[18] E-mail from Zack Porter, Exec. Dir., Standing Trees, to James Innes, Dist. Ranger, U.S. Forest Serv., Theresa Corless, Forest Planner and Env't Coordinator, U.S. Forest Serv., and Scott Hall, NEPA Coordinator, U.S. Dept. of Agric. (August 24, 2023, 10:59 EST) (Exhibit 59 to Standing Trees Sandwich Comment).

[19] Kellett et al., *Forest-clearing to Create Early-successional Habitats: Questionable Benefits, Significant Costs*, 5 FRONTIERS FOR GLOB. CHANGE 1 (Jan. 9, 2023) (Exhibit 3 to Standing Trees Sandwich Comment) (hereinafter "Kellett et al."). The Forest Service's documents responding to scoping comments provides no substantive response

In sum, the Forest Service has arbitrarily selected age-class objectives at the Forest Plan and project level without regard to the scientific literature or the broader landscape context, and—making matters worse—it has arbitrarily determined what conditions on the ground will count towards "regeneration age class" objectives and which harvest prescriptions can achieve these conditions. This forces the public to guess how the Forest Service is (or is not) making progress towards Forest Plan goals and objectives, regardless of their validity.

In addition, the amount of regenerating forest across the WMNF, as described in the Forest Plan EIS, may in fact be dramatically higher (in terms of both acreage and percentage of the total forested area) than is acknowledged or reported by the Forest Service. This is because the Forest Service has arbitrarily and unreasonably limited the definition of regeneration age forests and the tools which can create regeneration age forests within the boundaries of the WMNF. There is likely significantly more regeneration occurring across the WMNF than the public is led to believe in Project documents. Moreover, there is a significant and unacknowledged difference between what is created through timber harvests and natural disturbances.

The Forest Service's arbitrary construction of what conditions count towards age class goals, and how such conditions can be created, lead to the agency's habit—common to several, if not all, recent projects on the WMNF—of presupposing that the only way to achieve desired age class goals is to conduct the Project's logging activities, including even-aged management. This determination biases the agency against other valid management approaches, constraining the development of alternatives.[20] The Forest Service suggests the Project will cultivate a healthy forest with improved biodiversity, yet provides no scientific evidence.[21] The Forest Service states that natural means would create less "[d]iversity of age and structure" and "wildlife habitat diversity objectives… would not be met,"[22] but provides no analysis of: (a) how much regeneration or young forest habitat is already present on public lands or surrounding private lands; (b) how much would be created naturally with a no-action alternative; (c) how the "diversity of age and structure" that would be created through logging for "regeneration forest habitat" differs from what would occur naturally in the forest; and (d) how wildlife habitat diversity would, in fact, differ between naturally and artificially-created early successional habitat. The degree of disturbance that would be caused by the Project equates to an extreme or catastrophic event that could never occur under natural conditions. These gaps in analysis illustrate how, on its own terms, the Draft EA fails to comply with NEPA's requirements of reasoned, transparent analysis.

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to this peer-reviewed paper and promises a "Kellett response paper," but no such paper is cited or included in the public project documents. U.S. FOREST SERV., White Mountain National Forest, Pemigewasset Ranger District, Lost River Integrated Resource Project Scoping Comment Period Summary and Consideration Report at 24 (Nov. 2024) (hereinafter "Scoping Comment Report"), *available at* https://www.fs.usda.gov/r09/whitemountain/projects/63401.

[20] 40 C.F.R. § 1502.2(f).

[21] Draft EA at 6.

[22] Draft EA at 18.

Despite the clear scientific evidence for increasing amounts of old, wild forest, only 4% of New Hampshire (and a similar amount across New England) is managed to permanently protect or restore old forest conditions, with a primary emphasis on supporting native biodiversity, natural processes, and climate stabilization.[23] Additional science supporting permanent protection and restoration of old forests was recently published, including a study released in early 2023 identifying the major problems with forest management promoting early successional habitat.[24]

For these reasons, the forest management practices embodied by this Project are increasingly contrary to scientific evidence, and the Draft EA makes no effort to reckon with the growing body of science supporting greater protection of the Project area's mature forests. In conflict with NEPA, the Draft EA fails to address and explain opposing viewpoints and contrary scientific information along with the agency's rationale for choosing one viewpoint over another.[25]

The Forest Service must truly consider and incorporate up-to-date scientific analyses when considering any project's purpose and need.[26] Despite being provided with a wealth of current, comprehensive, and scientific data from Standing Trees's and others' comments,[27] the Forest Service has completely insulated itself in its own library of dated scientific literature.[28] And now, in its supporting documents, the Service purports to dismiss many of the recent

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[23] Foster et al., Wildlands in New England: Past, Present, and Future. Harvard Forest Paper 36. Harvard University (2023) (**Exhibit 1**); *see also* Moomaw et al., *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, 2 FRONTIERS IN FOREST AND GLOB. CHANGE 1, 3 (2019), *available at* https://www.frontiersin.org/articles/10.3389/ffgc.2019.00027/full (Exhibit 32 to Standing Trees Sandwich Comment).

[24] Kellett et al.

[25] 40 C.F.R. § 1502.9(c) (requiring agencies to disclose, discuss, and respond to "any responsible opposing view"). *See Bark v. U.S. Forest Service*, 958 F.3d 865, 871 (9th Cir. 2020) (decision not to prepare EIS held arbitrary and capricious where Forest Service failed to "engage with the considerable contrary scientific and expert opinion" and "instead drew general conclusions").

[26] 42 U.S.C. § 4332.102(A), (H).

[27] *See e.g.*, Standing Trees Scoping Comment (offering more than 40 sources of current scientific literature); Standing Trees, *Objection Pursuant to 36 C.F.R. § 218.8 to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest*, June 12, 2023, *available at* https://cara.fs2c.usda.gov/Public/Letter/3981569?project=55659 (hereinafter "Standing Trees Peabody West Objection") (same); Standing Trees, *Objection Pursuant to 36 C.F.R. § 218.8 to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest*, May 1, 2023, *available at* https://cara.fs2c.usda.gov/Public/Letter/3927522?project=56394 (hereinafter "Standing Trees Lake Tarleton Objection") (same).

[28] *See, e.g.*, U.S. FOREST SERV., *WMNF Plan Final Environmental Impact Statement: Literature Cited* 1-25, *available at* https://usfs-public.app.box.com/s/2e0b13dxfdk9u6dsbmclg3jywt5lqg2l (citing studies as old as 1969 regarding silvicultural use); Draft EA at 11 (citing a study from 2009 regarding beech disease); U.S. Forest Serv., *Lost River Integrated Resource Project: Franconia Notch Habitat Management Unit Rationale* (Feb. 8, 2023) (citing a 2006 "Technical Guide to Forest Wildlife Habitat Management in New England" that downplays the importance of intact mature and old forests for biodiversity that up-to-date science has embraced) (hereinafter "Franconia Notch HMU Rationale").

scientific articles submitted by the public with cursory and indeed adversarial responses that do not reflect reasoned consideration or decision-making.[29]

To comply with NEPA, the Forest Plan, and NFMA, the Forest Service must consider the best, most recent scientific evidence.[30] To that end, Standing Trees is providing the following additional, recent scientific studies that recognize the importance of older forests for carbon storage and climate resilience, undermine the purported carbon and biodiversity benefits of timber harvest, and underscore the net greenhouse gas emission benefits of reducing harvest in older forests. These studies should inform the Purpose and Need Statement in any further NEPA document for the Project, as well as be accounted for as part of the NEPA analysis of the Project's impacts on carbon storage, biodiversity, and forest health.

- **DellaSala et al 2024**[31]**:** "Degradation drivers include multiple forms of commercial logging and road building that alters native species composition, structure, and functionality. Case studies from three major forested biomes (temperate, boreal, and tropical) illustrate the geographic extent and types of degradation. We highlight an urgent call for countries to better detect and assess the cumulative damages of forest-degradation and to end it as promised." (Abstract)
- **Markuljakova et al 2025**[32]**:** "Our findings underscore the vital role of protecting and restoring old-growth forest ecosystems for effective carbon stock and biodiversity conservation. We emphasise [sic] that forest heterogeneity, encompassing factors such as tree age and diameter, canopy layer, species composition, and growth patterns, are important for enabling managed forests to reach peak carbon storage capacity. Although 70 years is insufficient for secondary old-growth forests to fully recover primary forest characteristics, our study demonstrates that similar structures and functions can develop within less than a century of protection in productive temperate regions of Europe. This study supports rewilding as an effective conservation strategy and Natural Climate Solution." (Abstract)
- **Brown et al 2024**[33]: "Our results suggest that any increase in the regional harvest regime will reduce net carbon sequestration in the landscape over climate policy-relevant time scales, even when more of the harvest is diverted to biomass energy production at very high assumed efficiency in displacing fossil fuel emissions. While all harvest/feedstock scenarios become more carbon competitive when fossil fuel emissions are displaced through wood energy, the transition to carbon-

[29] Scoping Comment Report at 16-24.
[30] 40 C.F.R. § 1500.1(b); WMNF Plan at 1-3; 36 C.F.R. § 219.3.
[31] DellaSala et al., *Measuring forest degradation via ecological-integrity indicators at multiple spatial scales,* BIOLOGICAL CONSERVATION (Dec. 13, 2024) (**Exhibit 2**).
[32] Markuljaková et al., *Rewilding beech-dominated temperate forest ecosystems: effects on carbon stocks and biodiversity indicators*, IFOREST (Feb. 2, 2025). (**Exhibit 3**).
[33] Brown et al., *Net carbon sequestration implications of intensified timber harvest in Northeastern U.S. forests*, ECOSPHERE (2024). (**Exhibit 4**).

neutral energy sources may reduce the net carbon benefits of fossil fuel displacement over time." (Conclusion)

- **Birdsey et al 2023**[34]: "We found that middle-aged Eastern U.S. forests could continue to accumulate carbon for many decades or several centuries in the absence of harvesting, with relatively low risk of natural disturbances. Compared with a recent study that estimated a potential increase in biomass of only 22%, and some analyses that anticipate significant increases in risks from natural disturbances, our results indicate a potential increase of about 100% over current biomass stocks by 2100... Results from scenario analyses showed that in the near term of 20–40 years, reducing harvest will yield the greatest reduction in net greenhouse gas emissions compared with business as usual." (Abstract)
- **Jong et al. 2023**[35]**:** "Extreme precipitation is among the most destructive natural disasters...By the mid-21st century, the model projects unprecedented rainfall events over the region, driven by increasing anthropogenic radiative forcing and distinguishable from natural variability. Very extreme events (>150 mm/ day) may be six times more likely by 2100 than in the early 21st century."
- **Peng et al. 2023**[36]**:** "After agriculture, wood harvest is the human activity that has most reduced the storage of carbon in vegetation and soils. Although felled wood releases carbon to the atmosphere in various steps, the fact that growing trees absorb carbon has led to different carbon-accounting approaches for wood use, producing widely varying estimates of carbon costs. Many approaches give the impression of low, zero or even negative greenhouse gas emissions from wood harvests because, in different ways, they offset carbon losses from new harvests with carbon sequestration from growth of broad forest areas. Attributing this sequestration to new harvests is inappropriate because this other forest growth would occur regardless of new harvests and typically results from agricultural abandonment, recovery from previous harvests and climate change itself." (Abstract)

B. The Habitat Management Rationale Documents for the Project Do Not Support the Purpose and Need Statement.

As it has elsewhere, the Forest Service has elaborated on Forest Plan objectives with goals specific to the two Habitat Management Units affected in two Habitat "Rationale" documents.[37] While they provide certain age-class and habitat composition information about the Project in the aggregate, these documents do not rationally support the Project's Purpose and

[34] Birdsey et al., *Middle-aged forests in the Eastern U.S. have significant climate mitigation potential*, Forest ECOLOGY AND MANAGEMENT (Sep. 14, 2023) (**Exhibit 5**).
[35] Jong et al., *Increases in extreme precipitation over the Northeast United States using high-resolution climate model simulations*, NPJ CLIMATE AND ATMOSPHERIC SCIENCE (2023) (**Exhibit 6**).
[36] Peng et al., *The carbon costs of global wood harvests*, NATURE (Jul. 5, 2023). (**Exhibit 7**)
[37] Franconia Notch HMU Rationale; U.S. Forest Serv., *Lost River Integrated Resource Project: Elbow Pond Habitat Management Unit Rationale* (Feb. 8, 2023) (hereinafter "Elbow Pond HMU Rationale").

Need Statement. Most glaringly, the documents include no information on the amount of "old age class" forest in the HMUs. Without that information, it is impossible to determine whether the Project supports the Forest Plan age-class objectives.

The documents also fail to include actual stand age or survey information that could be used to explore whether the Project would affect any stands with old forest or old-growth habitat, citing only to a proprietary vegetation database that is not available to the public. When disclosed, this data for at least one other project has raised substantial concerns that the Service's assurances to the contrary are erroneous.[38] Standing Trees has repeatedly sought this information from the Forest Service and has been told variously that it does not exist or that it would require a FOIA[39]—a complete derogation of the Forest Service's obligations under NEPA and NFMA to transparently support its decision-making with publicly accessible information.

Accurate stand age information is vital to provide a reasoned and well-informed basis for this or any similar project, as outlined in previous Standing Trees submissions.[40] Without it, the Forest Service will run afoul of its obligations under federal law, including NFMA.[41] Without adequate information regarding stand age-class data, the public cannot evaluate the Project's impacts or a full range of reasonable alternatives and the Forest Service will fail to comply with NEPA.

Moreover, both documents are dated prior to the scoping process for the Project and thus could not account for any comments provided by the public. To transparently comply with its own Forest Plan objectives,[42] NEPA,[43] and NFMA,[44] the Forest Service should share with the public in an accessible manner its habitat type and age class composition information, and provide an opportunity for public comment before making further decisions regarding this Project.

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[38] Brief of Plaintiff at 21-24, Standing Trees, Inc. v. U.S. Forest Service, 1:24-cv-00138 (D.N.H. 2024) https://www.courtlistener.com/docket/68535375/standing-trees-inc-v-us-forest-service/#entry-14; Reply Brief for Plaintiff at 8-10, Standing Trees, Inc. v. U.S. Forest Service, 1:24-cv-00138 (D.N.H. 2024) https://www.courtlistener.com/docket/68535375/standing-trees-inc-v-us-forest-service/#entry-27.

[39] E-mail from Theresa Corless, Forest Planner and Env't Coordinator, U.S. Forest Serv. to Zack Porter, Exec. Dir., Standing Trees (Apr. 28, 2025, 3:22pm) (**Exhibit 8**).

[40] Standing Trees Scoping Comment at 21 (citing Standing Trees Sandwich Comment at 4-12).

[41] *See* 16 U.S.C. § 1604(g)(3)(F)(i).

[42] *Id.*

[43] *See* 40 C.F.R. § 1506.6(a), (b) ("Agencies shall . . . [m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures" and "provide . . . the availability of environmental documents so as to inform those persons and agencies who may be interested or affected by their proposed actions.").

[44] 16 U.S.C. § 1604(g)(3)(F), § 1604(g)(3)(F)(i) (". . . the Secretary shall . . . [specify] guidelines which . . . insure that clearcutting . . . will be used as a cutting method on National Forest System lands only where . . . it is determined to be the optimum method . . . to meet the objectives and requirements of [the WMNF Plan].").

C. The Purpose and Need Statement Is Deficient Because It Improperly Narrows the Range of Alternatives to the Project.

The Statement must accurately reflect the proposed action's purpose and need because it will inform the range of alternatives, including the proposed action.[45] NEPA requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."[46] Similarly, the Forest Service Handbook states that "the effects of not taking action should provide a compelling reason for taking action and, therefore, should be consistent with the purpose and need for action."[47]

As Standing Trees makes clear in prior submissions,[48] the Forest Service must explore other forest management prescriptions that adhere to current conditions, adapt to new information and context, and comply with the Forest Plan. In the Lost River context—and in others—the Service's conclusory discussions of the Project need fail to provide a compelling reason for taking action, based on current scientific understanding.

By properly framing the Purpose and Need Statement, the Forest Service can facilitate a legally compliant NEPA review, which must consider a full range of reasonable alternatives in comparative form based on the information and analyses presented.[49] NEPA requires as much because a project like the one proposed here plainly has significant impacts warranting full evaluation in an EIS.[50]

D. The Purpose and Need Statement for the Project Ignores Essential Elements of the Forest Plan

With its deficient Purpose and Need Statement, the Draft EA fails to show the Project's compliance with the Forest Plan—an essential component of analyzing the Project's impacts on vegetation and forest health in the context of the Forest Plan's standards and guidelines on these issues. Standard S-3 of the Forest Plan's Forest-Wide Management Direction states that "[t]imber harvest is prohibited in old growth forest."[51] Further, Guideline G-1 states that

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[45] *See League of Wilderness Defs.-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1069 (9th Cir. 2012).
[46] 42 U.S.C. § 4332.102(E); 40 C.F.R. § 1501.5(c)(2).
[47] Forest Service Handbook 1909.15, *National Environmental Policy Act Handbook, Chapter 40: Environmental Assessments and Related Documents* 3 (2010), https://www.fs.usda.gov/cgi-bin/Directives/get_dirs/fsh?1909.15 (navigate to "wo_1909.15_40_Environmental assessments and related documents.doc").
[48] Standing Trees Sandwich Comment at 44-45; Standing Trees Peabody West Objection at 37-39; Standing Trees Lake Tarleton Objection at 15-20.
[49] 40 C.F.R. § 1502.14.
[50] *See* Section IV, *infra* (explaining why the size, scope, and significance of the Project will create significant impacts within the project area).
[51] WMNF Plan 2-13. Old-growth is defined in the Forest Plan as "[u]neven-aged (three or more age classes) forest with an abundance of trees at least 200 years old, multiple canopy layers, large diameter snags and down logs, and a forest floor exhibiting pit-and-mound topography. There should be little or no evidence of past timber harvest or agriculture. Northern hardwood old growth consists primarily of sugar maple and American beech; softwood old growth is largely made up of spruce and hemlock. Stands need to be at least 10 acres in size to be identified as old

"[o]utstanding natural communities should be conserved."[52] The Forest Plan goes beyond protections for existing old-growth forest, however, clearly looking to how the Forest Service can facilitate recovery of old-growth forest across a larger percentage of the forest in the future. The Forest Plan defines old forest as beginning at 70 years of age in Aspen-birch habitat types, 90 years of age in Spruce-Fir, and 120 years of age in Northern hardwoods, Mixed wood, Oak-Pine, and Hemlock.[53]

The Forest Plan defines old forest habitat as: "[d]esired habitat conditions start with those for mature forest and can include greater size, decadence, structural complexity, etc. *No harvest will occur in stands identified to provide old forest habitat*."[54] From the Draft EA, which denies that the Project affects any old forests, it is impossible to discern whether any portions of the Project area have the potential to provide old forest habitat and to conclude that the Project complies with the Forest Plan's protections for such habitat.

Moreover, in conflict with the Forest Plan's guidelines, the Project proposes extensive even-aged management in mature stands within the Project area, 76% of which is classified as Mature.[55] Uneven-aged harvest methods may be appropriate in mature forests in some circumstances, but the Plan does not endorse any even-aged management: "*Depending on site conditions, thinning and uneven-aged harvest methods can be used in this habitat without negatively impacting habitat quality*. Some uneven-aged harvest may enhance vegetative and structural diversity."[56] Despite this instruction to avoid even-aged management in mature forest habitat, the Project proposes extensive even-aged management. Notwithstanding numerous indications that even-aged management will have the most adverse environmental impacts of the Project's various silvicultural treatments, the Draft EA never analyzes this conflict. Contrary to the Forest Plan, proposed management activities within the Project area will degrade habitat quality.

In the important respects discussed above and in light of the related deficiencies with the Purpose and Need Statement, the Draft EA fails to establish the Project's consistency with the Forest Plan and therefore NFMA.

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growth. Anything smaller is a patch of old trees within a younger stand, not a habitat type in its own right." WMNF Plan Abbreviations, Acronyms, and Glossary at 21.

[52] WMNF Plan 2-13.

[53] WMNF Plan Appendix D.

[54] WMNF Plan Abbreviations, Acronyms, and Glossary at 21 (emphasis added).

[55] Draft EA at 3. The Forest Plan defines Mature Forest as "[s]tands in which the overstory is in the mature age class. Mature forest habitat is typically made up of trees that are eight inches or more in diameter. Mortality is just beginning in these stands, resulting in a few scattered canopy gaps and a small number of snags and cavities in the overstory. Most snags and down logs are small in diameter and within the intermediate or understory layers." WMNF Plan Abbreviations, Acronyms, and Glossary at 18. The mature age class ranges from 40-89 years for Spruce-Fir habitat types, 60-119 years for Mixed wood and Northern hardwood, 40-69 years for Aspen-birch, and 70-119 years for Oak-Pine and Hemlock. WMNF Plan Appendix D.

[56] WMNF Plan Abbreviations, Acronyms, and Glossary at 18 (emphasis added).

II. The Draft EA Fails to Consider a Full Range of Reasonable Alternatives to the Project, Including the "No Action" Alternative.

Under NEPA, the Forest Service must evaluate "a reasonable range of alternatives to the proposed agency action . . . that are technically and economically feasible, and meet the purpose and need of the proposal."[57] The statement must discuss foreseeable positive and negative impacts of each alternative, including the impacts of taking no action, so that members of the public can make informed comparisons among the possible alternatives.[58] It is also incumbent upon federal agencies to "[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources."[59] Further, agencies "shall not commit resources prejudicing selection of alternatives before making a final decision" about which alternative to pursue.[60]

In the context of a major land management project over Habitat Management Units comprising thousands of acres, a wide range of reasonable alternatives should have been considered. The primary purpose for the Project is "to advance Forest Plan goals, objectives, and desired conditions for vegetation, wildlife, recreation, and other resources," using "an ecological approach to provide both healthy ecosystems and a sustainable yield of high quality forest products."[61] The Draft EA also cites the Forest Plan's instruction to "use sustainable ecosystem management practices to provide a diversity of habitats across the WMNF…."[62] There is no reason to believe that such broad goals can only be accomplished through the specific distribution of silvicultural treatments proposed in the Draft EA. The sheer number of different vegetation management practices proposed for different sites within the Project area demonstrates that even if logging is needed—which, to be clear, Standing Trees questions—vegetation management could be applied in a variety of ways to achieve the desired conditions. Furthermore, the Forest Service could "advance Forest Plan goals, objectives, and desired conditions" to varying degrees within the Project while still meeting the intent of the Forest Plan. This variability necessarily implies that several reasonable alternatives exist, and the Forest Service should analyze the range of options in an EIS. This is particularly true because no single project will fully achieve the Service's HMU or Forest-wide goals, with each project providing the opportunity for many possible decisions about where and how to conduct timber harvests.

A. The Forest Service must consider a true No Action Alternative.

Analyzing a robust "No Action Alternative" is an essential element of any EA or EIS.[63] One of the most critical purposes of a No Action Alternative is to establish a baseline against

[57] 42 U.S.C. § 4332(C)(iii).
[58] 40 C.F.R. §§ 1502.14, 1502.1; *see also* 36 C.F.R. § 220.7(b)(3).
[59] *Id*. § 1501.2(b)(3); *see also* 42 U.S.C. § 4332(C)(iii) (saying the same); *see also* 36 C.F.R. § 220.7(b)(2) (Forest Service NEPA regulations also require alternatives be studied for an EA).
[60] 40 C.F.R. §§ 1502.2(f), 1506.1.
[61] Draft EA at 5.
[62] *Id*.
[63] 40 C.F.R. § 1502.14(c); *see also* 36 C.F.R. § 220.7(b)(2) (same).

which the proposed action can be measured.[64] As in the past, the Forest Service has utterly neglected this step and failed to properly analyze the No Action Alternative.[65]

NEPA requires agencies to consider both the detriments and benefits of proposed projects, which includes considering the benefits of reasonable alternatives as well. There are numerous benefits of *not* moving ahead with the proposed action (i.e., the No Action Alternative). These include, but are not limited to: climate benefits of retaining older, mature trees; habitat benefits for the endangered NLEB and other species that rely on mature, old, or interior forests or are sensitive to harvest impacts; avoidance of potential detrimental impacts to water quality due to runoff, sedimentation, and potential herbicide contamination; avoidance of loss or damage to historic and cultural resources located within the proposed action area; avoidance of the introduction of invasive species; avoidance of a potential violation of Forest Plan directives to maintain very high visual quality standards for MA 8.3 (Appalachian Trail) lands; and avoidance of visual and noise impacts, among many others. A No Action Alternative should also carefully detail how the full range of habitats required by native species can be facilitated within the Project area by simply allowing natural processes and forest aging to create habitat diversity and complexity.

The "Consideration of No Action" section of the Draft EA does not consider these benefits whatsoever.[66] In this context, the Forest Service's approach violates its own NEPA implementing regulations and NEPA itself, and contradicts its own HMU Rationales. The Service "must legitimately assess the relative merits of reasonable alternatives before making its decision" to proceed with the proposed action.[67] Furthermore, Forest Service NEPA implementing regulations create no exception for this project to skip the no action alternative analysis.[68]

The Draft EA does not consider the benefits of no action and instead mischaracterizes the consequences. It states no action would lead to limited "[d]iversity of age and structure in the HMUs," and "wildlife habitat objectives of the forest plan would not be met."[69] In fact, the Draft EA unjustifiably asserts "[y]oung regenerating stands would not establish and over time, the landscape would trend toward a homogenous even-aged structure and species mix." This unsupported statement is false, and contradicted by the Project's HMU Rationales. Both HMU

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[64] *Biodiversity Conservation Alliance v. U.S. Forest Serv.*, 765 F.3d 1264, 1269 (10th Cir. 2014) ("NEPA analysis uses a no-action alternative as a baseline for measuring the effects of the proposed action."); *Ctr. for Biological Diversity v. U.S. DOI*, 623 F.3d 633, 642 (9th Cir. 2010) ("A no action alternative in an EIS allows policymakers and the public to compare the environmental consequences of the status quo to the consequences of the proposed action.").

[65] Standing Trees Sandwich Comment at 45; Standing Trees Peabody West Objection at 40; Standing Trees Lake Tarleton Objection at 15-16.

[66] Draft EA at 16.

[67] *Dubois v. Dept. of Agriculture,* 102 F.3d 1273, 1289 (1st Cir., 1996); *see also Lovgren v. Locke*, 701 F.3d 5, 36 (1st Cir. 2012) (requiring "information sufficient to permit a reasoned choice" among alternatives as to their environmental consequences).

[68] 36 C.F.R. § 220.7(b)(ii) ("The EA *may* document consideration of a no-action alternative through the effects analysis by contrasting the impacts of the proposed action and any alternative(s) with the current condition and expected future condition if the proposed action were not implemented.").

[69] Draft EA at 16.

Rationales state, if stands were never harvested, they "would attain old-growth characteristics and revert to the Potential Natural Vegetation," which is a "climax or late successional forest community."[70] An old-growth forest is *uneven-aged*. Thus, taking no action would not result in an *even-aged* forest. This incomplete and indeed inaccurate discussion violates NEPA's requirements for the no-action analysis.

B. The Draft EA fails to analyze appropriate alternatives.

In addition to a No Action Alternative, the Forest Service should study additional alternatives that explore a reasonable range of options to meet the Purpose and Need while avoiding or minimizing harmful impacts.

Agencies must "study, develop and describe appropriate alternatives" when a proposal "involves unresolved conflicts concerning alternative uses of resources."[71] The Service's own regulations make clear that this requirement applies to EAs.[72] Forest Service regulations provide a narrow exception for EAs to analyze only the proposed action "[w]hen there are no unresolved conflicts concerning alternative uses of available resources…."[73] But here, the Forest Service never addressed the unresolved conflicts over Project area resources, including forest land, water, wildlife habitat, scenery, recreation, and inventoried roadless areas, that the Project will affect. Courts have found that an alternatives analysis is guided by "how narrowly or broadly one views the objective of an agency's proposed action."[74] Despite at least ten viable alternative proposals before the agency, and a broad purpose and need statement, it analyzed a single narrow alternative related to road construction.

In its scoping comments, Standing Trees urged the Forest Service to analyze the following alternatives.

- Avoiding all mature and old forest as defined in Forest Plan Appendix D, Age Class Definitions by Habitat Type, to comply with EO 14,072 and to reduce risk of harm to NLEB habitat;
- Avoiding all impacts to Forest Plan Revision IRAs and Roadless Area Conservation Rule ("RACR") IRAs;
- Increasing the size of the buffer between logging activities and watercourses, waterbodies, and wetlands;

[70] Elbow Pond HMU Rationale at 3; Franconia Notch HMU Rationale at 3.
[71] 42 U.S.C. § 4332(H); *see also* 36 C.F.R. § 220.7(b)(2)(i) ("The Service shall describe alternatives that meet the need for action, except when there are not unresolved conflicts concerning alternative uses of available resources.").
[72] *See* 36 C.F.R. § 220.7(b)(2) ("The EA shall briefly describe the proposed action and alternative(s) that meet the need for action.").
[73] 36 C.F.R. § 220.7(b)(2)(i)
[74] *New York v. U.S. Dep't of Transp.*, 715 F.2d 732, 743–44 (2d Cir. 1993) (finding the agency appropriately considered nine alternatives in its EA that each would secure highway transportation of radioactive materials); *see also Conservation Law. Found. v. U.S. Army Corps of Eng'rs*, 457 F. Supp. 3d 33, 57 (D.N.H. 2019) (affirming the agency's alternatives analysis because it considered five alternatives and supplied "reasonable common-sense explanations for rejecting alternatives.").

- Maintaining primitive, dispersed recreation opportunities in the vicinity of Elbow Pond;
- Decommissioning and recontouring all roads within Forest Plan Revision IRAs and RACR IRAs;
- Augmenting beaver populations to expand wetland and complex early seral habitats;
- Replacing undersized culverts and bridges within the minimum extent of necessary road infrastructure to increase resilience to anticipated flooding events;
- Restricting logging activities to NLEB hibernation periods;
- Precluding logging within the average migration distance of NLEB from all hibernacula; and
- Requiring surveys for NLEB and other endangered species prior to proceeding with each harvest unit for this Project.

By contrast, the Forest Service has described exactly one "action" alternative—avoiding the rerouting of Elbow Pond Road and instead reconstructing the road at the southwest bend of Jackman Brook by raising the road and installing several culverts. It purports to have considered three other Standing Trees-proposed alternatives concerning transportation and recreation but did not analyze them in detail. In the response to scoping comments on the Project website, the Service provides various cursory justifications for failing even to consider Standing Trees' other alternatives.[75]

This approach fails to analyze the appropriate alternatives to the Project, even assuming the Purpose and Need Statement for the Project is adequate.[76] Most importantly, and without justification, the Service refuses to consider *any* alternatives to its silvicultural prescriptions, ludicrously asserting there are no other Project designs or approaches that would advance Forest Plan objectives and the Project Purpose and Need.

Standing Trees renews its request that the Service fully analyze the alternatives previously described and further requests that the Service analyze the additional alternative that no even-aged management occur in mature stands, consistent with Forest Plan direction to prioritize only uneven-aged management in those areas of the Forest. To be clear, Standing Trees does not favor such an action alternative, but it is an appropriate and reasonable alternative that the Forest Service should consider in its NEPA review of the Project.[77]

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[75] Scoping Comment Report at 9-10.

[76] *See Env't Def. Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th 850, 877 (9th Cir. 2022) (holding agency's alternatives analysis did not satisfy NEPA's requirement to "give full and meaningful consideration to all viable alternatives in [the agency's] environmental assessment"); *Conservation Law. Found.*, 457 F. Supp. 3d at 57 (affirming the agency's alternatives analysis because it considered five alternatives and supplied "reasonable common-sense explanations for rejecting alternatives."); *cf. Dubois*, 102 F.3d at 1287 (viable but unexamined alternative rendered NEPA review inadequate).

[77] *See* 42 U.S.C. § 4332(H) (Agencies must "study, develop and describe appropriate alternatives" when a proposal "involves unresolved conflicts concerning alternative uses of resources."); *see also* 36 C.F.R. § 220.7(b)(2)(i) ("The

III. The Draft EA Fails to Take a "Hard Look" at Environmental Impacts of the Project.

Under NEPA, the Forest Service must take a "hard look" at the environmental impacts of the planned action.[78] This requirement "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action."[79] The purpose of this process is to ensure that the final decisions concerning a project are "fully informed and well-considered."[80] The discussion below identifies significant impacts that are likely to occur if the Lost River IRP proceeds as described and that the Draft EA fails to consider with the requisite "hard look." The Forest Service should analyze these impacts, along with planned mitigation measures,[81] in an EIS.

Vegetation and forest health

As established above, elsewhere in this comment, and in other submissions made by Standing Trees,[82] the likely effects of the Lost River IRP on forest health will be significant and require the Forest Service to conduct an EIS. The Lost River IRP seeks to cut 237 acres using even-aged management, including 206 acres of clearcuts.[83] The Draft EA for the Project violates NEPA's hard look requirement in: (1) lacking information on stand age, habitat type, and species composition; (2) failing to address current scientific understanding of forest health; and (3) failing to show compliance with the Forest Plan.

As proposed, the Lost River IRP will run headlong into the Forest Plan's standards and guidelines. Standard S-3 of the Forest Plan's Forest-Wide Management Direction states that "[t]imber harvest is prohibited in old growth forest."[84] Further, Guideline G-1 states that "[o]utstanding natural communities should be conserved."[85] The Forest Plan also states that "[n]o harvest will occur in stands identified to provide old forest habitat."[86] The Forest Plan defines old forest habitat as: "[d]esired habitat conditions start with those for mature forest and can include greater size, decadence, structural complexity, etc."[87] Certainly, these attributes

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Service shall describe alternatives that meet the need for action, except when there are not unresolved conflicts concerning alternative uses of available resources.").

[78] *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).

[79] *Mass. v. U.S. Nuclear Regul. Comm'n*, 708 F.3d 63, 67 (1st Cir. 2013).

[80] *Dubois*, 102 F.3d at 1284.

[81] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 333 (1989) ("[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' [sic] function of NEPA.")

[82] Scoping Comment at 14; Standing Trees Sandwich Objection at 49-50.

[83] Draft EA at 5.

[84] WMNF Plan at 2-13. Old-growth is defined in the Forest Plan as "[u]neven-aged (three or more age classes) forest with an abundance of trees at least 200 years old, multiple canopy layers, large diameter snags and down logs, and a forest floor exhibiting pit-and-mound topography. There should be little or no evidence of past timber harvest or agriculture. Northern hardwood old growth consists primarily of sugar maple and American beech; softwood old growth is largely made up of spruce and hemlock. Stands need to be at least 10 acres in size to be identified as old growth. Anything smaller is a patch of old trees within a younger stand, not a habitat type in its own right." WMNF Plan Abbreviations, Acronyms, and Glossary at 21.

[85] WMNF Plan at 2-13.

[86] WMNF Plan Abbreviations, Acronyms, and Glossary at 21.

[87] *Id.*

could appear in stands that are otherwise classified as "mature" according to the Forest Plan's Appendix D: Age Class Definitions by Habitat Type. Yet the Draft EA contains absolutely no evidence that the Project will protect such stands, as required by the Forest Plan[88]—indeed, the Project targets mature forests.

Because the Forest Service has not provided up-to-date information regarding stand boundaries and ages, it is impossible for the public to discern or verify how much of the Project area is mature or old forest. Making matters worse, the agency deliberately and arbitrarily lumps mature and old age-class stands together in its HMU analyses (see Table 3 in both the Franconia and Elbow Pond HMU Rationales).[89] To rectify this, and to comply with the Forest Plan standards and guidelines, the Forest Service should include in an EIS comprehensive information and maps regarding the stand ages and boundaries in the Project area. As is, the Draft EA does not take its required "hard look" at the significant impacts the Lost River IRP could have on vegetation and forest health. By omitting this essential information, the Forest Service also frustrates the public's ability to propose alternatives for the Forest Service's consideration.

Carbon and climate impacts

Under NEPA, the Forest Service must discuss the impacts of the proposed Project on the climate. As Standing Trees previously commented, this discussion must include both carbon emissions generated by the Project activities *and* impacts of the proposed silvicultural treatments on carbon storage.

The Draft EA utterly fails to do so or even—as prior NEPA documents from the WMNF have done—to acknowledge the requirement, referencing only that a prior administration's executive order on climate change has been rescinded by the new administration.[90] This omission is all the more egregious and irrational because the Project documents, including the Service's response to scoping comments, committed to analyzing the impacts of the Project on climate change.[91] Mere months later, without any reasonable explanation, the Service has abandoned that commitment.

Importantly, the requirement for the Service to analyze the Project's impacts on climate change persists notwithstanding the executive branch's irresponsible and anti-scientific change of heart on climate change. Thus, the CEQ guidance released on January 9, 2023, by the prior administration merely reinforces NEPA's own requirement that agencies must "quantify proposed actions' [greenhouse gas ("GHG")] emissions, place GHG emissions in appropriate context and disclose relevant GHG emissions and relevant climate impacts, and identify alternatives and mitigation measures to avoid or reduce GHG emissions."[92] Agency decisions should be based on the best available science and account for the urgency of the climate crisis.[93]

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[88] *Id*.
[89] Franconia Notch HMU Rationale at 5; Elbow Pond HMU Rationale at 5.
[90] Draft EA at 17-18.
[91] E.g., Scoping Comment Report at 12.
[92] CEQ, *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, 88 Fed. Reg. 1196 (Jan. 9, 2023).
[93] *Id*.

The guidance clarifies that "NEPA requires more than a statement that emissions from a proposed Federal action or its alternatives represent only a small fraction of global or domestic emissions."[94] Case law affirms that these requirements are not creatures of executive orders or guidance but the command of NEPA and its hard look standard.[95]

As Standing Trees explained in a previous comment,[96] this obligation is especially important here, where recently approved timber harvests across the WMNF have major climate change implications. 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. Forests in this region, when allowed to follow their natural course of growth, also exhibit exceptionally long periods between stand replacing disturbance events. Further, because of recent recovery from an extensive history of timber harvesting and land conversion for agriculture in the 18th, 19th, and early 20th centuries, median forest age is about 75 years,[97] which is only about 25–35% of the lifespan of many of the common tree species in these forests.[98] Several global studies have highlighted the unique potential of our temperate deciduous forests to contribute on the global stage to climate stabilization and resilience.[99]

While New Hampshire may be a relatively small state, its temperate deciduous forests are among the planet's most effective carbon sinks. The WMNF contains some of the oldest and most carbon-dense ecosystems in New England. While there is a common misconception that young forests are better than old forests at removing carbon, strong scientific evidence indicates that carbon storage and sequestration are maximized in un-logged stands in northern New England.[100] Thus, preserving mature and old forests is of vital importance for mitigating impacts of climate change. The Service must analyze and avoid any threats to the survival of mature and old forest that might result from projects such as the Lost River IRP.

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[94] *Id*. at 1201.

[95] *Ctr. for Biological Diversity v. U.S. Forest Serv. (Black Ram)*, 687 F. Supp. 3d 1053, 1076 (D. Mont. 2023), *rev'd on other grounds,* 2025 WL 586358 (9th Cir. 2025) ("Ultimately, [GHG] reduction must happen quickly and removing carbon from forests in the form of logging, even if the trees are going to grow back, will take decades to centuries to re-sequester") (quotations omitted); *see also High Country Conservation Advocates v. U.S. Forest Service*, 52 F. Supp. 3d 1174 (D. Colo. 2014) (NEPA analysis must disclose and evaluate all of the effects of a proposed action—including impacts to climate from foreseeable greenhouse gas emissions).

[96] Scoping Comment at 15-16.

[97] William R. Moomaw et al., *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, FRONTIERS FOREST & GLOB. CHANGE, June 2019, at 1, 4 (Exhibit 26 to Standing Trees Scoping Comment).

[98] *Id*. at 4–5.

[99] Eric Dinerstein et al., *A "Global Safety Net" to Reverse Biodiversity Loss and Stabilize Earth's Climate*, SCI. ADVANCES, Sept. 2020, at 1 (Exhibit 27 to Standing Trees Scoping Comment); Martin Jung et al., *Areas of Global Importance for Conserving Terrestrial Biodiversity, Carbon, and Water*, 5 NATURE ECOLOGY & EVOLUTION 1499 (2021) (Exhibit 28 to Standing Trees Scoping Comment).

[100] Keeton et al., *Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States*, 57 FOREST SCI. (Jan. 18, 2011) (Exhibit 9 to Standing Trees Scoping Comment).

Old forests store more carbon than young forests, and old forests continue to accumulate carbon over time.[101] The rate of carbon sequestration actually increases as trees age,[102] and this process is multiplied as entire stands age.[103] As Standing Trees has pointed out previously,[104] recent studies show that among land uses in New England, timber harvest has the greatest impact on aboveground carbon storage.[105] Timber harvesting in New England has been found to have a larger effect on aboveground carbon storage than forest conversion to non-forest uses.[106] In fact, the Forest Service's own research shows that the carbon emissions of timber harvests far outpace the impacts of wind, insects, disease, fire, climate, or other disturbances, *combined*, in the Eastern Region of the National Forest System.[107] The Forest Service must take the most up-to-date science on carbon storage, including the scientific references provided here and in Standing Trees's prior submissions, into account when analyzing this Project's climate impacts.[108] The Draft EA blatantly fails to do so.

On the issue of climate resilience, the Forest Service failed to acknowledge or consider the science that Standing Trees has provided in its scoping comments and on multiple other occasions. Federal courts have set aside NEPA analysis when an agency fails to respond to scientific analysis that calls into question the agency's assumptions or conclusions.[109] Confoundingly, the Draft EA retains a smattering of references to the benefits of the Project for

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[101] Keith et al., *Re-evaluation of Forest Biomass Carbon Stocks and Lessons from the World's Most Carbon-Dense Forests*, 106 PNAS 11635 (July 14, 2009) (Exhibit 2 to Standing Trees Scoping Comment); Luyssaert et al., Old-growth Forests as Global Carbon Sinks, 455 NATURE, 213 (2008) (Exhibit 3 to Standing Trees Scoping Comment); Leverett et al., Older Eastern White Pine Trees and Stands Sequester Carbon for Many Decades and Maximize Cumulative Carbon, 4 FRONTIERS FOR GLOBAL CHANGE, 1 (May 2021) (Exhibit 4 to Standing Trees Scoping Comment); Thom et al., The Climate Sensitivity of Carbon, Timber, and Species Richness Covaries with Forest Age in Boreal-Temperate North America, (2019) (Exhibit 5 to Standing Trees Scoping Comment).

[102] Stephenson et al.*, Rate of Tree Carbon Accumulation Increases Continuously with Tree Size,* 507 NATURE 90 (Jan. 2014) (Exhibit 10 to Standing Trees Scoping Comment).

[103] Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, FOREST ECOLOGY & MGMT. 544 (May 2023) (Exhibit 11 to Standing Trees Scoping Comment).

[104] Scoping Comment at 15-16; Standing Trees Sandwich Comment at 26; Standing Trees Peabody West Objection at 21; Standing Trees Lake Tarleton Objection at 26.

[105] Duveneck and Thompson*, Social and Biophysical Determinations of Future Forest Conditions in New England: Effects of a Modern Land-use Regime* 55 GLOBAL ENV'T CHANGE 115 (March 2019) (Exhibit 12 to Standing Trees Scoping Comment).

[106] *Id*.

[107] Birdsey et al., *Assessment of the influence of disturbance, management activities, and environmental factors on carbon stocks of U.S. national forests*, GENERAL TECHNICAL REPORT MRRS-GTR-402, 30 (Nov. 2019), *available at* https://www.fs.usda.gov/rm/pubs_series/rmrs/gtr/rmrs_gtr402.pdf (**Exhibit 9**).

[108] Notably, the Forest Service has calculated the greenhouse gas emissions for other timber management projects, including the Telephone Gap project in the Green Mountain National Forest.

[109] *See, e.g., Bark*, 958 F.3d at 871; *see High Country Conservation Advocates. v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174 (D. Colo. 2014) (concluding the Forest Service violated NEPA by failing to mention or respond to an expert report on climate impacts); *Ctr. for Biological Diversity v. U.S. Forest Serv.,* 349 F.3d 1157, 1168 (9th Cir. 2003) (concluding that the Forest Service's failure to disclose and respond to evidence and opinions challenging scientific assumptions in an EIS violated NEPA); *Seattle Audubon Soc'y v. Espy*, 998 F.2d 699, 704 (9th Cir. 1993) ("It would not further NEPA's aims for environmental protection to allow the Forest Service to ignore reputable scientific criticisms that have surfaced.").

climate resilience,[110] without supporting those assertions or explaining any of the many risks to climate resilience from the Project's timber harvests. This does not constitute a hard look.

In order to comply with NEPA, the Forest Service should abandon the legally flawed approach of the Draft EA and address the Project's carbon and climate impacts in an EIS.

Impacts to sensitive species including the NLEB

The Draft EA and supporting documentation provide very little Project-specific analysis of impacts to endangered, threatened, and other sensitive species. The Draft EA references the Biological Evaluation, which states that four federally listed or proposed species and twelve Regional Forester Sensitive Species have potential to occur in the analysis area.[111]

The information provided suggests that the Project, in fact, will adversely affect listed species in violation of the ESA. Indeed, based on the Biological Evaluation, the Draft EA ultimately concedes that the Project is likely to adversely affect the endangered northern long-eared bat ("NLEB"). And—incredibly—a known hibernaculum is .15 miles from the project area boundary and 1.3 miles from the nearest point of the action area. These circumstances suggest potential violations of the Endangered Species Act and the Forest Plan, which requires the Service to "contribute to conservation and recovery of [listed] species and their habitats."[112]

As discussed in our prior comments, NLEB habitat requirements are the opposite of the type of habitat that will be generated from the Project.[113] According to the USFWS Species Status Assessment Report for the NLEB, dated August 2022, the bat depends on mature and old forests for roosting and foraging.[114] Preferred roosting habitat is large diameter live or dead trees of a variety of species, with exfoliating bark, cavities, or crevices. Bats change roosts approximately every two days,[115] and females often return to the same maternity area over multiple years.[116] Additionally, "mature forests are an important habitat type for foraging NLEBs[,]" and "most foraging occurs . . . under the canopy . . . on forested hillsides and ridges."[117] Furthermore, NLEBs "seem to prefer intact mixed-type forests . . . for forage and travel rather than fragmented habitat or areas that have been clear cut."[118]

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[110] Draft EA at 5, 11, 12.
[111] Draft EA at 20.
[112] WMNF Plan 1-1, 1-8.
[113] Standing Trees Scoping Comment at 12.
[114] U.S. Fish and Wildlife Serv., Species Status Assessment for the Northern long-eared bat (*Myotis septentrionalis*) Version 1.2, at 18 (Aug. 2022), https://www.fws.gov/media/species-status-assessment-report-northern-long-eared-bat (hereinafter "Species Status Assessment") (Exhibit 1 to Standing Trees Sandwich Comment).
[115] *Id*. at 18.
[116] U.S. Forest Service, Sandwich Vegetation Management Project: Biological Evaluation for Federally Listed, Proposed and Candidate Species 11 (July 24, 2023), *available at* https://usfs-public.app.box.com/v/PinyonPublic/file/1267828787110 (hereinafter "Biological Evaluation").
[117] Species Status Assessment at 18.
[118] *Id*. at 18-19.

The WMNF, including the Project area, contains extensive mature forests that are beginning to acquire the characteristics of an old forest, likely providing some of the highest-quality NLEB habitat in New England. Yet many of the silviculture treatment prescriptions in this Project involve the removal of mature or old trees.[119]

In fact, the Biological Evaluation for the Project states: "[t]he northern long-eared bat has been documented throughout the White Mountain National Forest. Roosting and foraging habitat does exist within the action area and the species was historically known from the general vicinity."[120] Although "limited" acoustic surveys did not locate any NLEB,[121] a known hibernaculum exists just .15 miles outside the project area and 1.3 miles from the nearest point of the action area. The "limited" acoustic surveys are not reassuring given well-known difficulties with identifying the NLEB's ambiguous call in small data sets.[122] Moreover, the single survey the Forest Service relies upon is unpublished and has not been included in public project documents.[123]

Given the bats' expected presence in the action area, the Forest Service correctly determined the NLEB is likely to be adversely affected by the project. The Draft EA makes clear the Project poses risk of direct impacts to the northern long eared bat: "The greatest potential for injury and death would be during the summer maternity season (June 1 through August 15) when female bats and their non-volant young are less able to flee their roosts." Timber harvest could occur on "up to 234 acres (across 430 acres) during the summer maternity season." An additional 587 aces (across 1010 gross acres) is slated for harvest during the bat's active season (April 15 to October 31).

Despite these conceded impacts and risks, the Forest Service has conducted no Project-specific analysis to characterize the risks to NLEB from Project activities fully, nor are there any site-specific mitigation measures incorporated into the Draft EA, including what would seem to be the easiest mitigation measure of all: avoiding timber harvest activities when bats are active during non-hibernation season (April 15-October 31).

Importantly, the current Biological Opinion ("BiOp") for the NLEB makes no site- or Project-specific determinations whatsoever. The BiOp provides a blanket assessment of nearly 3,000 Forest Service projects, of which the Lost River IRP is only one.[124] The BiOp goes on to

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[119] For example, an estimated 75 acres will be clear-cuts with reserves, which "would result in an immediate change from mature to regeneration age structure." Draft EA at 11.
[120] Biological Evaluation at 11.
[121] *Id.*
[122] Hopp et al., *Maximum likelihood estimators are ineffective for acoustic detection of rare bat species*, PLOS ONE, 11 (Apr. 2025) (**Exhibit 10**).
[123] Draft EA at 26.
[124] Letter from Karen Herrington, Acting Asst. Reg'l Dir. for Ecological Servs., USFWS Region 3, to Gina Owens, Reg'l Forester of Eastern Region, U.S. Forest Serv. (Mar. 31, 2023) (*in re* Northern Long-Eared Bat Biological Opinion) (on file with Peabody West IRP project at "Biological Opinion NLEB Reinitiation" > "Forest Service Region 8 and Region 9 Final.pdf") (hereinafter "BiOp") (Exhibit 46 to Standing Trees Sandwich Comment) ("Due

estimate that the NLEB is gravely endangered in the WMNF, with as few as 25 maternity colonies and fewer than a thousand NLEB individuals in all of New Hampshire.[125] In other words, NLEBs are expected to be present in the Project area, but nothing has changed to protect them following their endangered listing. The lack of reliable data on where NLEB colonies persist and the likelihood of impacts from Forest Service projects demonstrates a blatant disregard for the purpose and procedures of the ESA. The Forest Service cannot lawfully rely on this botched BiOp that did not follow the proper procedures laid out in the ESA. [126]

In combination with recently approved projects and anticipated logging and tree-cutting projects (including the Wanosha Integrated Resource Project, Peabody West Integrated Resource Project, Tarleton Integrated Resource Project, Sandwich Vegetation Management Project, and others), WMNF is set to eliminate or degrade several thousand acres of NLEB habitat across a large region. The Forest Service concludes there are cumulative impacts, but does not analyze them.[127]

Within the last year, the Service apparently has finalized a Bat Conservation Strategy for eastern forests, and that Strategy seems to play a role in the Service's analysis here by providing certain generic conservation measures. The Service is also apparently consulting with USFWS about additional measures to protect the NLEB. None of this changes that the Project poses grave risks to the NLEB based on the Service's own unexplained and unexamined decisions to include project components that are likely to harm the NLEB. Failing to protect the NLEB, in such an unreasoned fashion, is a violation of the ESA and NEPA.

In addition, the Forest Service should consider impacts to other TES species that may exist within the Project area. To take one example, the Canada lynx is federally listed as threatened,[128] and it is listed as endangered by the state of New Hampshire.[129] The Canada lynx's habitat consists of boreal forests, and some higher-elevation areas within the WMNF are within the lynx's known range.[130] USFWS has stated that "[i]n all regions within the range of the lynx in the contiguous United States, timber harvest, recreation, and their related activities are the

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to the number of planned and ongoing projects and the similarity of effects, the projects will be combined and collectively evaluated to determine the projects' effects on NLEB.").

[125] *Id*. at 18, 30–35 ("[I]t is reasonable to conclude there will be some impacts to some individual NLEBs in areas where they have yet to be documented (i.e., specific areas where they are not reasonably certain to occur). Given the nature of forest management and overlap with suitable habitat, the best available science indicates that forest management practices are anticipated to have at least some negative impact on some individual NLEBs in unknown locations, as opposed to the assumption that forest management will have a large impact on all of the or most NLEBs.").

[126] *See Ctr. for Biological Diversity v. U.S. Forest Serv*., No. CV 22-114-M-DWM, 2023 WL 5310633, at *7 (D. Mont. Aug. 17, 2023) ("[A]n agency violates the ESA if it relies on a legally flawed BiOp.").

[127] Biological Evaluation at 13.

[128] USFWS, *Canada Lynx (Lynx canadensis)*, Environmental Conservation Online System (ECOS) (last updated Aug. 4, 2022), https://ecos.fws.gov/ecp/species/3652 (hereinafter "ECOS").

[129] N.H. Fish and Game Dep't., *Endangered and Threatened Wildlife of NH*, https://www.wildlife.nh.gov/wildlife-and-habitat/nongame-and-endangered-species/endangered-and-threatened-wildlife-nh (last visited Oct. 5, 2023).

[130] ECOS.

predominant land uses affecting lynx habitat."[131] Ongoing research by Tony D'Amato at the University of Vermont (as yet unpublished) shows that lynx are harmed by even-aged management activities; D'Amato comments: "'What we found is that...smaller openings with shade around them really do accumulate and actually maintain snow a lot longer.' In some places, this can be achieved by protecting existing old forests, which go through natural cycles of growth and disturbance because of the weather." [132]

The Biological Evaluation also summarily concludes that the Project may but is unlikely to affect the threatened small whorled pogonia; that the Project may affect, but is not likely to adversely affect the threatened Canada Lynx; and that the Project anticipates direct effects to, would not jeopardize the continued existence of or adversely modify critical habitat of the tricolored bat, which is proposed to be listed as endangered.[133] The Forest Service's conclusions as to each of these species are without a solid basis in the Project documentation, in violation of NEPA. In particular, the Forest Service failed to provide Biological Assessments ("BA") for these species as part of the documentation for this Project. As further detailed below in this Comment, a project- and species-specific BA is required to "evaluate the potential effects of an action on listed and proposed species…[to] determine whether any such species or habitat are likely to be adversely affected by the action and is used in determining whether formal consultation or a conference [with the U.S. Fish and Wildlife Service ("USFWS")] is necessary."[1] Without more specific BAs, the public lacks important information related to Federally listed and proposed listed species that might be impacted in the Project area. This information is necessary for the public to make informed comments and objections, including regarding the Project's compliance with the ESA.

The Biological Evaluation's cursory treatment of the Canada Lynx, and of other TES species, does not constitute a hard look under NEPA. Indeed, the Biological Evaluation provides only generic information (some of which is controversial and conflicts with more accurate and recent scientific studies)[134] supporting the Forest Service's assertion that federally listed and sensitive species will not be impacted by the Project, but it fails to substantially address any conservation methods and recovery strategies for actually protecting these species. Through additional project-specific consultation with USFWS and the completion of an EIS, the Forest Service would have an opportunity to do an in-depth analysis of the Project's impacts on endangered, threatened, and sensitive species and to ensure their protection.

Wildlife

The Forest Service must consider the impacts that the Lost River IRP will have on other species of wildlife, particularly given the important role that mature and old forests play in this

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[131] *Id*.
[132] Abagael Giles, *Snowshoe hares have a camouflage problem. These scientists want to help*, WBUR (April 25, 2025), https://www.wbur.org/news/2025/04/25/snowshoe-hares-climate-change-new-england-no-snow (**Exhibit 11**)
[133] Biological Evaluation at 10-11 and 15
[134] *See, e.g.,* Species Status Assessment at 18-19 (Exhibit 1 to Standing Trees Sandwich Comment) (describing NLEB preferred habitat, including foraging habitat).

delicate ecosystem. As Standing Trees has pointed out in previous comments,[135] the ecosystems that the Forest Service calls "old forests" are actually northern New England's natural forests. As such, much of New Hampshire's community of life evolved over millennia within these remarkable original forests. A combination of overhunting and habitat loss following European settlement led to the disappearance of wide-ranging carnivores such as cougars, wolves, and wolverines. Elk and caribou met a similar fate. Some species we might take for granted today, such as bear, moose, beaver, and loons, were on the brink of extirpation only a short while ago. Lynx, NLEB, and pine marten currently teeter on the edge. Salmon, once prolific in the Connecticut River system, now struggle to naturally reproduce. Many of New Hampshire's imperiled bird species are adapted to interior forests and reliant upon complex forest structure for their survival, including standing snags and large living trees.[136] Indeed, the availability of dead and dying trees and downed wood is critical for the health of many species, from bats to pine marten to invertebrates.[137]

Mature, unfragmented interior forests make ideal habitat for a variety of native and imperiled species. However, this type of forest is rare in New England overall. This makes the WMNF an important concentration of such habitat within New England. When this habitat is fragmented or degraded through activities such as logging, these species experience increased threats from interactions with humans, predation, changes in microclimates, the spread of invasive species and ticks, and other fragmentation and edge effects. The Forest Service must analyze how the fragmentation of habitat associated with the Lost River IRP will impact wildlife, including the species discussed here and others.

Water quality impacts

Notwithstanding the Draft EA's discussion of the Clean Water Act ("CWA") and hydrology impacts in the Project area, and despite Standing Trees's request for further water quality impacts analysis, the Draft EA still fails to take a hard look at impacts to water quality and the affected watershed. Up-to-date, *site-specific* analysis is necessary to understand the impacts that the Lost River IRP will have on Elbow Pond, Jackman Brook, Walker Brook, other perennial streams, and the watershed overall. The Draft EA contains no such analysis. As part of an EIS, the Forest Service should perform a thorough stratigraphic and hydrological analysis of the entire proposed treatment area and the adjoining forest area to fully grasp the Project's impacts on water quality, including the impacts of road reconstruction as part of the Project and whether those impacts comply with the CWA.

Pursuant to NEPA's "hard look" mandate, an agency must rely on adequate baseline data that enables the agency to carefully consider information about direct environmental impacts and

[135] Standing Trees Scoping Comment at 13-14; Standing Trees Sandwich Comment at 35; Standing Trees Peabody West Objection at 21; Standing Trees Lake Tarleton Objection at 45.
[136] Robert A. Askins, *The Critical Importance of Large Expanses of Continuous Forest for Bird Conservation*, 25 BIOLOGY FACULTY PUBLICATIONS 1, 25 (2015) (Exhibit 6 to Standing Trees Scoping Comment).
[137] Thorn et al., *The Living Dead: Acknowledging Life After Tree Death to Stop Forest Degradation*, 18 FRONTIERS ECOL. & ENV'T 505 (2020) (Exhibit 7 to Standing Trees Scoping Comment); Evans and Mortelliti, *Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher*, 13 ECOSPHERE 1 (Nov. 24, 2021) (Exhibit 8 to Standing Trees Scoping Comment).

may not rely on outdated data to do so.[138] Indeed, "establishing appropriate baseline conditions is critical to any NEPA analysis," because without establishing a baseline, "there is simply no way to determine what effect the [project] will have on the environment and, consequently, no way to comply with NEPA."[139] It is unclear if baseline data was even gathered for use in the Draft EA's analysis because no analysis was presented. It is impossible for the public to evaluate or weigh in on the adequacy of the agency's analysis without a baseline based on current water quality data from the Project area.

Additionally, the Draft EA states that there will be field visits prior to project implementation aimed at "further refin[ing] treatment unit boundaries and acres including modifications to address site-specific conditions," including potentially "reduc[ing acres] to meet visual and water quality objectives, to incorporate reserve patches of uncut trees in final harvest stands, or incorporate protective buffers around features such as vernal pools, cultural resources, nest trees, and riparian zones."[140] For the resources mentioned, these on-site baseline conditions should be identified prior to completing the NEPA analysis. The Forest Service should have used that information to describe the impacted environment, provide analysis of how these resources may be impacted, and describe how the agency might propose to address those impacts.

More fundamentally, the Service's analysis is primarily limited to the Service's use of the basal removal metric, a desktop approach premised on a non-peer-reviewed white paper that purports to discuss the scientific support for the metric. The method conducts no site-specific, localized analysis and provides no baseline data against which to compare impacts.

The lack of current site-specific data and sources to support the Forest Service's conclusory assessment of water quality impacts makes it impossible for the public to provide informed opinions about the Project and its potential implications on water quality. The Draft EA fails to meet the NEPA "hard look" standard as it relates to hydrology and water quality in the project area. Consequently, the Forest Service should complete an EIS and additional NEPA analysis to determine the impacts of the Project on hydrology and water quality.

Roadless area values and characteristics

The Draft EA fails to take a hard look at the Project's substantial and devastating impacts on roadless area values and characteristics in the Project area.

Roadless areas are vital sources of water, biodiversity, and recreational solitude, and consequently the Forest Service must pay special consideration to these areas as part of its environmental analyses under NEPA. In 2001, the Forest Service acknowledged the *inherent* value of roadless areas by promulgating the RACR.[141] The Forest Service was right to recognize the many critical benefits of protecting roadless areas, including their contributions to high

[138] *See, e.g.*, *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1083–87 (9th Cir. 2011); *Cascade Forest Conservancy v. Heppler*, 2021 WL 641614, at *17-20 (D. Or. Feb. 15, 2021).
[139] *Great Basin Res. Watch v. Bureau of Land Mgmt.*, 844 F.3d 1095, 1101 (9th Cir. 2016).
[140] Draft EA at 8.
[141] 36 C.F.R. § 294.

quality soil, water, and air; their status as sources of public drinking water; their value for flood and drought mitigation; their benefits for biodiversity, in particular as habitats for TES species; and their "natural-appearing landscapes" with high scenic quality.[142] As the Forest Service itself acknowledged in 2001,[143] these areas are precious not merely because of their potential for future wilderness designation, but also because roadless areas—regardless of when they were inventoried—possess unique characteristics all their own.[144] These characteristics include contributions to water quality; suitable habitat for resident species of conservation concern; a capacity as carbon sinks exceeding that of "degraded" forests; social benefits, particularly the opportunity for solitary, primitive-type recreation; and aesthetic attributes, of which the once-pristine WMNF contains too many to count.[145]

Unfortunately, the Forest Service continues to draw a distinction between *RACR IRAs* (i.e., those inventoried by 2001 and consequently protected from road construction, reconstruction, and most timber management by the RACR) and *Forest Plan IRAs* (i.e., those areas inventoried by the Forest Service after RACR's promulgation and therefore afforded such protections only at the discretion of forest planning).[146] To that end, the Forest Service arbitrarily takes a two-class approach to management of IRAs in a National Forest. Rather than affording a base level of protection commensurate with the RACR for all IRAs within a National Forest, the Forest Service instead treats Forest Plan IRAs as second-class citizens that are only to be protected if deemed worthy of a wilderness recommendation during the Forest Plan revision process.[147] Regrettably, those areas not recommended for wilderness designation are often allocated to management areas ("MAs") that permit activities that degrade roadless area values.[148] Whether they are RACR or Forest Plan IRAs, roadless areas merit protection and special consideration, including under NEPA, not merely because they contain the potential for eventual wilderness designation, but also because of their inherent value as watersheds and biodiversity hotspots. The

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[142] *Id.* at 3245.

[143] *See* 36 C.F.R. § 294 at 3245 ("[IRAs] provide clean drinking water and function as biological strongholds for populations of [TES, and] . . . provide large, relatively undisturbed landscapes that are important to biological diversity and the long-term survival of many at-risk species. [They] provide opportunities for dispersed outdoor recreation . . . and provide reference areas for study and research.").

[144] *See id*. at 3247 ("Promulgating this rule is necessary to protect *the social and ecological values and characteristics of [IRAs]* from road construction and reconstruction and certain timber harvesting activities.") (emphasis added).

[145] Standing Trees Scoping Comments at 18-19 (and cited sources).

[146] *See generally*, WMNF Plan, *Chapter 3: Management Area Direction* (describing MAs that, although legally distinct from IRAs inventoried under RACR or congressionally designated wilderness, largely derive their value from the same characteristics that make these areas so valuable).

[147] The Forest Service erroneously states that "the areas not meeting the requirements for potential wilderness designation during our forest plan revision are designated as forest plan inventories roadless areas (IRA)." Draft EA at 22. To the contrary, all Forest Plan Inventoried Roadless Areas (indeed, even portions of the National Forest that are not Inventoried Roadless Areas) are eligible for Congressional designation as wilderness.

[148] *See, e.g*., Standing Trees Sandwich Comment at 33–34 (highlighting the Forest Service's failure to consider the proposed project's impacts on roadless area values); Standing Trees Peabody West Objection at 17 (describing the proposed project's failure to sufficiently consider impacts to NLEB habitat, including in roadless areas); Standing Trees Lake Tarleton Objection at 46 (summarizing the potential negative effects of the proposed project's planned road reconstruction).

Forest Service's ongoing distinction between such conceptually and physically similar areas is arbitrary and has little relevance to the NEPA analysis required here.

The risks of the Service's approach are on full display here, as the Project proposes vast amounts of timber harvest, with all its devastating impacts on roadless values, in several Forest Plan IRAs.[149] And the Project will directly impact one RACR IRA with limited road construction and result in indirect impacts from other Project activities on adjacent lands.[150]

Given the overlap between proposed treatments and Forest Plan IRAs, and the adjacency of the harvests and RACR IRAs, and the road work proposed in both RACR and Forest Plan IRAs, as well as the Forest Service's overarching obligation to consider any potentially significant impacts resulting from their proposed actions, the Forest Service must more fully acknowledge any significant impacts to such areas likely to result from such actions and consider, in detail, at least one alternative that would avoid, or at least significantly mitigate, such impacts. The Draft EA does neither of these things, refusing to limit the impacts to IRAs given the Service's irrationally blinkered approach to the purpose and need for the Project, discussed above.[151]

Notably, WMNF Forest Plan EIS Appendix C, "Inventoried Roadless Area Evaluations," contains detailed site-specific analyses for each IRA, including Jobildunk and North Carr Mountain, but the Forest Service failed to perform any analysis of the impacts of proposed harvests, roads, skid roads, log landings, and other associated activities on these documented qualities and characteristics, or how such harvests might impact the Forest Service's future management of the areas. This is especially concerning because the Forest Plan is past its Congressionally-intended expiration date, and these Inventoried Roadless Areas are overdue for another wilderness evaluation process. It is very possible that timber harvests approved by the Lost River IRP could be implemented during a future Forest Plan revision process or in a subsequent version of the Plan. Such commitments could bias the Forest Service's evaluation and decision-making. Indeed, the transportation requirements for the Project's harvests in these IRAs will make it impossible for the Project to remain true to two of the Forest Plan's Transportation Objectives: (1) to "[c]onstruct only those roads necessary to meet the management objectives of the Forest Plan," and (2) to [d]ecommission all . . . roads not necessary to meet the management objectives of the Forest Plan as funding is available."[152]

Because of the uniqueness of these areas, it is imperative that the Forest Service carefully considers the project's proposed impacts on these areas' defining characteristics if the Service is to comply with its obligations under NEPA to meaningfully involve the public.

Road reconstruction impacts

Although "Transportation" and the need for a transportation analysis is included as one of the "needs" for the project, there is no detailed analysis of transportation or the impacts of road

[149] Draft EA at 43.
[150] *Id.* at 21.
[151] Draft EA at 22.
[152] WMNF Plan at 1-17.

reconstruction in the Environmental Impacts discussion. There is also no analysis of how proposed transportation-related activities compare to what is expected or permitted in the Forest Plan. The Draft EA states that access roads for vegetation management areas will meet modern design standards, but fails to indicate how a significant number of units proposed for timber harvest will be accessed by roads or skid trails, suggesting that the Forest Service has failed to account for the access that will be needed for proposed activities or is instead failing to disclose those access needs.

The Draft EA does not provide a detailed analysis of the potential for roads and skid trails to contribute to water quality issues and flooding through increased erosion and sedimentation, soil compaction resulting from the use of heavy machinery used to achieve the proposed road activities, and renewed fragmentation of wildlife habitat, among other things.

The following photograph, of a skid trail in the Guinea Hill timber sale area of the Sandwich Vegetation Management Project, illustrates Standing Trees' concern. This particular skid trail was never shown in the Project documentation and yet demonstrably has caused a range of environmental impacts, including worsened stormwater runoff and soil disturbance.

Skid trail in Guinea Hill timber sale of Sandwich Vegetation Management Project
April 2025

Some of these roads cross perennial streams, making their change in status at odds with the Forest Plan, which states:

> Existing roads, facilities, campsites, or trails within 100 feet of perennial streams or ponds should be considered for relocation as part of normal project planning, except when doing so would result in greater overall impact to the land or water resource. [153]

The Forest Plan also states that existing roads should be considered for decommissioning (a) when there is no longer any need for the road; (b) when alternative routes may be available; or (c) to protect natural and cultural resources or to meet other resource needs.[154]

Yet the Draft EA does not describe any potential impacts on the perennial streams, nor does it provide information for the public to evaluate the proposed road work outside of the Elbow Pond access road relocation.

Leaving wetlands, riparian areas, and other land and water resources free from the risks of reconstructed roads would promote the roadless and wilderness characteristics of the area and would help to support important habitat benefits and ecosystem services. Other than the Elbow Pond access road, no analysis is provided supporting reconstruction or maintenance of 5.2 miles of existing and proposed roads, except the conclusory statement that "[r]econstruction and maintenance activities are used to restore or regain the management objective of the road and improve or realign the roadway."[155]

This contrast between the Service's scrutiny of the Elbow Pond access road and its lack of analysis regarding other proposed road work indicates that the Forest Service failed to take a "hard look" at the impacts of road reconstruction or designation in the Project area as required by NEPA. The Draft EA seems to ignore infrastructure that will be necessary to access and remove timber removed through harvests, and their associated impacts for several stands including numerous clear cuts.

The Forest Service should complete a thorough evaluation of current HMU conditions to determine the impact of road reconstruction and construction and should accurately account for and depict all transportation needs. An EIS is necessary to determine the full impacts of road reconstruction in the Project area.

Scenic and recreational values

The Draft EA also fails to take a "hard look" at scenic and recreational impacts, despite the Project's location in the shadow of the most iconic and well-traveled areas of the western

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[153] *See* WMNF Plan at 2-25, G-7.
[154] *Id.*
[155] Draft EA at 12.

White Mountains, its visibility from numerous locations on the Appalachian Trail, and its potential effects on the communities and recreational activities in the Project area.

The Draft EA admits that the Project violates Forest Plan Scenic guideline G-3 numerous times, but that "the larger acreage is intended to better meet project-level objectives for the Elbow Pond HMU, and to move the forest toward desired conditions consistent with the Forest Plan"[156] However, the Draft EA entirely omits other violations of scenic guidelines noted in the Scenery Resources Effects Analysis ("Scenery Report"). These omissions frustrate public understanding of the Project's effects on scenic and recreational resources, in violation of NEPA.[157]

The Draft EA discusses "large even-aged treatments" in units 1, 54, 59 and 63. All of these cuts exceed scenic guideline G-3 or G-5 for MA 2.1 lands. G-3 is for areas with a high scenic integrity objective, and states "[m]aximum observed size should not exceed 4-5 acres. If openings occur, they should appear as natural occurrences and be well-distributed in the viewed landscape."[158] G-5 states "observed acreages of approximately 10 acres normally achieve a Moderate Scenic Integrity Objective."[159]

The Draft EA identifies four deviations from the Forest Plan's Scenic Guidelines:[160]

- Unit 1 has a high scenic integrity objective and is proposed for a clearcut, 7.4 acres of which will be visible from the Tecumseh viewpoint.[161] This exceeds the upper limit of G-3 by almost 50 percent.
- Unit 54 has a high scenic integrity objective and is proposed for clearcutting, 8.2 acres of which would be visible from the Tecumseh viewpoint.[162] This exceeds the upper limit of G-3 by more than 60 percent.
- Unit 59 has a moderate scenic integrity objective, and is proposed for a clearcut, 12.9 acres of which will be visible from the Tecumseh viewpoint.[163] This exceeds G-5's limit by almost 30 percent.
- Unit 63 has a moderate scenic integrity objective, and is proposed for a clearcut, 10.9 acres of which would be visible.[164] This exceeds G-5's limit by almost 10 percent.

No rationale is provided for why the Forest Service proposes a deviation from the relevant scenic guidelines. The EA simply states the guideline is being exceeded to meet project-level objectives—this is not a rationale. The Forest Service does not explain why one objective should take precedence over another. NEPA requires such an analysis to satisfy the hard look

[156] Draft EA at 26.
[157] 40 C.F.R. § 1506.6.
[158] WMNF Plan at 3-6
[159] WMNF Plan at 3-8.
[160] Draft EA at 25-26.
[161] U.S. FOREST SERV., White Mountain National Forest, Pemigewasset Ranger District, Lost River Integrated Resource Project Scenery Resources Effects Analysis at 9 (Jan. 2025) (hereinafter "Scenery Report")
[162] *Id.*
[163] *Id.*
[164] *Id.*

requirement, and while deviations from Forest Plan guidelines are permissible, they must be documented with a rationale.[165]

But these four units are not the only deviations from scenic guidelines on the project. The Scenery Report notes numerous other deviations:

- Unit 18 is proposed for clearcut and has a high scenic integrity objective. 5.7 acres will be visible from the Kinsman Mountain viewpoint, 5.8 acres will be visible from the Mount Liberty viewpoint, and 6 acres will be visible from the Mount Lincoln viewpoint.[166] The Scenery Report states that Design Feature B-2 and Forest Plan direction pages 2-24 to 2-26 can reduce visible acres, to bring unit 18 into compliance with scenic guideline G-3.[167] Design Element B-2 provides "[a]ny seeps will be avoided to the extent practical during project preparation and timber sale layout,"[168] and Forest Plan pages 2-24 to 2-26 feature the riparian and aquatic habitats standards and guidelines.[169] It is not evident how Design Element B-2 or riparian and aquatic habitat standards and guidelines would reduce visible acreage.
- Unit 48 is proposed for clearcut and has a moderate scenic integrity objective. This cut exceeds scenic guideline G-5 from four viewpoints: 12 acres will be visible from the Loon Mountain viewpoint, 12.5 acres will be visible from the Mount Liberty viewpoint, 11.9 acres will be visible from the Mount Lincoln viewpoint, and 20.7 acres will be visible from the Mount Tecumseh viewpoint.[170] The Scenery Report states that Design Feature H-1 will remedy these deviations.[171] Design Feature H-1 requires a "25-foot no cut buffer shall be applied to the intermittent stream within unit 48 to protect stream bank stability and prevent downstream sedimentation."[172] The Forest Service offers no explanation for how a 25-foot buffer to an intermittent stream could reduce the 20.7 visible acres by more than half from the Mount Tecumseh viewpoint.
- Unit 49 is proposed for clearcut and has a moderate scenic integrity objective. It exceeds scenic guideline G-5 from two viewpoints: 10.7 acres will be visible from the Mount Liberty viewpoint, and 12.1 acres will be visible from the Mount Lincoln viewpoint.[173] The Scenery Report states that bear foraging areas are in unit 49, and beech trees that receive the most bear use should be reserved.[174] Again, the Forest Service provides no rationale for how reserving beech trees that receive the most bear use will reduce visible acreage exceedance by 20 percent (nor, on its own merits, does the Forest Service provide any analysis of the impacts of proposed logging on the viability and functionality of these bear foraging areas).

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[165] WMNF Plan Glossary at 12.
[166] Scenery Report at 7-9.
[167] Scenery Report at 6.
[168] Draft EA at 15.
[169] WMNF Plan at 2-24 to 2-26.
[170] Scenery Report at 7-9.
[171] Scenery Report at 6.
[172] Draft EA at 14.
[173] Scenery Report at 7-8.
[174] Draft EA at 15.

- Unit 50 is proposed for clearcut and has a moderate scenic integrity objective. It exceeds scenic guideline G-5 from five viewpoints: 25.7 acres will be visible from Kinsman Mountain viewpoint, 23.1 acres will be visible from the Loon Mountain viewpoint, 25.4 acres will be visible from the Mount Liberty viewpoint, 25.6 acres will be visible from the Mount Lincoln viewpoint, and 20.7 acres from the Mount Tecumseh viewpoint. The Scenery Report merely cites to Appendix C of the Draft EA, which lays out the proposed silvicultural units and acres, and has no clear relation to reducing the visible acreage exceedance by as much as 150 percent from at least three geographically separate viewpoints to comply with guideline G-5.

It is not self-evident how any of the seemingly unrelated design features cited in the Scenery Report will reduce visible acreage exceedances, in some cases by more than 100 percent. Moreover, the Forest Service did not document any rationale for exceeding these scenic guidelines. Nor has the Service even made a determination of whether the scenic impacts listed above are significant.[175] This analysis is not in compliance with the Forest Plan, and it is certainly not a hard look.

Considering that the vast amount of vegetation management in the Lost River IRP consists of clearing trees, this Project will have a significant effect on scenic values, including to the high scenic integrity of the Appalachian Trail corridor. To comply with the Forest Plan, the Forest Service must ensure that its management activities are consistent with the assigned Scenic Integrity Objectives.[176] As discussed above, the Draft EA and accompanying Scenery Report demonstrate just the opposite—citing unrelated design features and providing no defensible explanations for these major deviations from Forest Plan scenic guidelines. To comply with NEPA's requirement of "hard look" analysis of the Project's scenic impacts, the Forest Service must conduct an EIS.

Soils

The Draft EA fails to provide any analysis, discussion, or clarity surrounding localized impacts on soil resources, let alone a "hard look" at the Project's effects. In Standing Trees's prior comments, we urged additional analysis of impacts to Project area soils from road reconstruction and logging.[177] The Draft EA provides no baseline measurement of soil content to determine whether soil conditions are suitable for harvesting, instead choosing to harvest without a baseline measurement for comparison; this amounts to guessing at the area's soil quality.

Moreover, the Soils Report poses the need for skid trails outside the guidance of vegetation management standard G-5.[178] G-5 instructs that skid roads should be located on grades of less than 20 percent where exposure of mineral soil is expected.[179] The Soils Report

[175] Draft EA at 25-26.
[176] WMNF Plan at 1-16, 2-26–27, 3-6–7.
[177] Standing Trees Scoping Comment at 16 and 26.
[178] U.S. FOREST SERV., White Mountain National Forest, Pemigewasset Ranger District, Lost River Integrated Resource Project Soils Report (Feb. 2024) (hereinafter "Soils Report") at 4, *available at* https://www.fs.usda.gov/r09/whitemountain/projects/63401.
[179] WMNF Plan at 2-30.

explains that "detrimental effects to soil productivity would be avoided in the project area, even if skid trails in summer/fall/winter units are inconsistent with the guideline, if soil and water best management practices and design features are followed."[180] However, Forest Plan Standard S-4 already requires that "State of New Hampshire Best Management Practices must be met or exceeded." If following best management practices on its own was enough, the Plan would not include G-5's 20 percent slope threshold. The 20% guideline was set for a reason, and the Forest Service's rationale for deviating from it—that the Service will follow best management practices, which it is already obligated to follow—does not justify deviating from the 20 percent guideline. Moreover, the State of New Hampshire Best Management Practices advise a more conservative slope threshold: "[w]here possible, keep skid trail grades *less than 15%.*"[181] The Forest Service did not take a hard look at this impact because its own sources do not support the conclusion it reached.[182]

There is no baseline localized data for the monitoring report to measure against, so effects may be noticed after irreparable harm is done. Thus, the Draft EA lacks thorough soil analysis, instead referring to the Project's planned adherence to "[best management practices] and Forest Plan standards and guidelines" to "ensure impacts to soils are minimized" without mention of site-specific plans.[183]

The Draft EA states that "[t]he proposed action … will not have significant impacts to soil resources," but also acknowledges that "[s]hort-term negative effects including soil displacement and soil compaction are anticipated from the proposed action."[184] However, the Forest Service does not describe how it defines "short-term," and the agency contradicts itself in the same paragraph by suggesting that "no detrimental impacts to soil productivity as measured by soil displacement (erosion) or soil compaction are anticipated."[185] Contrary to the Forest Service's claims, ample evidence is available from local studies that have investigated logging's impacts on soil and soil carbon. For example, a 2014 study from New England that looked specifically at sites near the Project area "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."[186] Clearly, more analysis is needed to ascertain both short- and long-term impacts of logging on soils. The Forest Service should complete an EIS to fully characterize the impacts that Project will have on soil resources.

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[180] Soils Report at 4.
[181] N.H. Div. of Forests & Lands, Best Management Practices for Erosion Control on Timber Harvesting Operations (2016) at 48-49, https://www.nhdfl.dncr.nh.gov/sites/g/files/ehbemt866/files/documents/timber-harvesting-erosion-control-bmps.pdf (emphasis added).
[182] *See Baltimore Gas and Elec. Co. v. Natural Res. Defense Council, Inc*., 462 U.S. 87, 105 (1983) (To have taken a hard look, the agency must articulate a rational connection between the facts found and the decision made).
[183] Draft EA at 24. The "Soils Report" is included in the supporting documents for the Draft EA, but it includes no Project-specific analysis, instead discussing soil-related conditions on a Forest-wide basis and offering guidance for conducting project-based analysis.
[184] Draft EA at 30.
[185] *Id.*
[186] Petrenko & Friedland, *Mineral Soil Carbon Pool Responses to Forest Clearing in Northeastern Hardwood Forests*, 7 GCB BIOENERGY 1283, 1283 (2014) (Exhibit 54 to Standing Trees Sandwich Comment).

Cumulative impacts

The Forest Service is required by NEPA to consider the cumulative impacts of the Project.[187] Cumulative impacts are defined as "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 persons undertakes such other actions."[188] Notably, "[c]umulative effects can result from *individually* minor but *collectively* significant actions taking place over a period of time."[189] Cumulative effects analysis requires the agency to define and apply a consistent geographic scope in which to analyze cumulative effects.[190] The geographic scope determines which nearby projects will be included in its analysis, and an agency "must provide support for its choice of analysis area[.]"[191]

The Forest Service not only fails to provide virtually any details in the Draft EA's cumulative impacts analysis, but it also effectively denies that there will be any such impacts.[192] When considered together, the Project's combined resource impacts—past, present, and future—are both significantly impactful to the human environment and deeply troublesome.

The Draft EA ignores other ongoing or upcoming Forest Service projects that involve logging and other tree-cutting in the WMNF, including but not limited to the Wanosha Integrated Resource Project, Peabody West Integrated Resource Project, Lake Tarleton Integrated Resource Project, Sandwich Vegetation Management Project, and Hales Location Wildfire Resiliency Project.[193] All of these projects involve substantial logging, carbon emissions, and/or habitat alteration or destruction. It is clear from the Draft EA that the Forest Service has not assessed the cumulative impacts of these anticipated future logging operations. It is also clear that the the Forest Service has not publicly accounted for the amount of early successional habitat located on private lands near the project area and throughout the WMNF region.

The Draft EA fails to identify or explain the temporal and geographic scopes of its cumulative impacts analysis for a majority of the resources. For some, but not all resources, the Draft EA asserts that there will not be cumulative impacts in the analysis area.[194] But the Forest Service does not define what the analysis area is.[195]

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[187] 40 C.F.R. § 1508.7; *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976).
[188] 40 C.F.R. § 1508.1(g)(3).
[189] *Id.* (emphasis added).
[190] *See League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton*, 2014 WL 6977611, at *9-11 (D. Or. Dec. 9, 2014).
[191] *Id*. at *9 (citing *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 902 (9th Cir. 2002); *Kleppe*, 427 U.S. at 414 (1976)).
[192] Draft EA at 29-32.
[193] *See, e.g.,* U.S. Forest Serv., *White Mountain National Forest: Projects,* https://www.fs.usda.gov/projects/whitemountain/landmanagement/projects (last visited Aug. 30, 2023); *see also* WMNF U.S. Forest Service Logging Projects Map (Exhibit 6).
[194] Draft EA at 29-32.
[195] *Id.*

In addition to its failure to define the geographic scope of the cumulative impacts analysis, the Draft EA's cumulative impacts analysis contains no actual analysis, but simply offers conclusory assertions that the Project is not expected to contribute cumulatively to resource impacts within the analysis area. The Forest Service cannot just make a blanket statement about impacts without providing analysis that supports that conclusion. As is, the public has no way of evaluating the cumulative impacts of the Project because the public is not given any detail to look into the matter themselves.

The Forest Service did create a Biological Evaluation for the Project, which includes a discussion of the NLEB. The Biological Evaluation indicates "the analysis area for cumulative effects for TEPS [threatened, endangered, and protected species)] species resulting from the activities included under the proposed action encompasses National Forest System lands located within the … HMUs." When taken into consideration with all the other Forest Service projects within the WMNF discussed above , the cumulative impact is significant. Because these projects may result in logging of mature trees that the bats use for roosting and foraging, and because of the presence of hibernacula within a short distance of this and other project areas, the Forest Service must analyze the cumulative effects this Project will have on bat habitat *alongside* "other past, present, and reasonably foreseeable future actions . . . ."[196]

To be certain, the cumulative effects of Forest Service projects on the NLEB will be substantial and consequential, not just within the WMNF but also throughout the bat's national habitat range. This is because U.S. Fish and Wildlife Service has issued a batched (and botched) Biological Opinion, allowing 2,408 planned and ongoing Forest Service actions in the Eastern and Southern Regions to continue.[197] The action area contains 22,542,298 acres of forested National Forest System lands.[198] Due to the dire state of the NLEB, every individual bat and every activity contributing to the destruction of its habitat—including logging—are of utmost importance. Failure to protect this species is a violation of the ESA.

For all the reasons set forth above, the Forest Service significantly fails NEPA's requirement to consider all cumulative impacts under NEPA's implementing regulation, and the Forest Service should complete an EIS and additional NEPA analysis to ensure that all cumulative impacts of the Project are analyzed, addressed, and made clear to the public.

IV. The Project, As Proposed, Will Likely Have Many Significant Environmental Impacts, and Therefore the Forest Service Must Complete an EIS.

NEPA requires federal agencies to prepare an EIS for projects that are likely to have significant effects.[199] In determining whether the effects of the proposed action are likely to be significant, agencies are to consider (1) both short- and long-term effects; (2) both beneficial and adverse effects; (3) effects on public health and safety; and (4) effects that would violate federal,

[196] 40 C.F.R. § 1508.7.
[197] *See* BiOp (Exhibit 46 to Standing Trees Sandwich Comment).
[198] BiOp at 6.
[199] 40 C.F.R. § 1502.3 (2020).

state, tribal, or local law protecting the environment.[200] Agencies should also consider impacts to resources specific to the action area, such as "listed species and designated critical habitat under the [ESA]."[201] Furthermore, impacts need not be widespread to be significant: "in the case of a site-specific action, significance would usually depend only upon the effects in the local area."[202]

The Forest Service must complete an EIS for the proposed Lost River IRP because the Project is highly likely to have numerous significant environmental impacts due to the intensity, location, and cumulative impact of proposed activities, as well as its expansive scope and size. An Environmental Assessment ("EA") simply will not be adequate in this case. The Draft EA describes planned silvicultural treatment on 1,093 acres across about 1,800 acres of National Forest land, including at least 206 acres of clearcutting, and the establishment of a new, 18-site campground at Elbow Pond.[203] The descriptions of season-specific timber harvesting, site preparation and release treatments, and shelterwood establishment cuts suggest that the Forest Service anticipates vegetation management activities continuing for "several" years.[204] Given the considerations listed above, these impacts are certain to be significant within the meaning of NEPA.

Yet the Forest Service issued a Preliminary FONSI, contrary to NEPA and CEQ's directives. Findings of no significant impact should include "discussion to show why more study is not warranted."[205] EAs are expected to "briefly provide *sufficient* evidence *and* analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact."[206] An agency FONSI will be held to the following standard: first, "the agency must have accurately identified the relevant environmental concern"; second, once the agency has identified the problem, "it must have taken a hard look at the problem in preparing the EA"; third, "if a finding of no significant impact is made, the agency must be able to make a convincing case for its finding"; and fourth, "if the agency does find an impact of true significance, preparation of an EIS can be avoided only if the agency finds that changes or safeguards in the project sufficiently reduce the impact to a minimum."[207].

Here, as discussed in detail above, the Forest Service fails to provide complete environmental information.[208] For example, the Forest Service does not have up-to-date environmental information regarding the presence of the NLEB in the proposed project area, including where NLEB roosts may exist. Without complete data, the Forest Service cannot

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[200] *Id*. § 1501.3(b)(2).
[201] *Id*. § 1501.3(b)(1).
[202] *Id*.
[203] Draft EA at 7-12.
[204] *Id*. at 29.
[205] 40 C.F.R. § 1502.2(b) (2020).
[206] 36 C.F.R. § 220.7(b)(3)(i) (emphasis added).
[207] *Nw. Bypass Grp. v. U.S. Army Corps of Eng'rs*, 470 F. Supp. 2d 30, 61 (D.N.H. 2007) (quoting *Sierra Club v. U.S. Dept. of Transp.*, 753 F.2d 120, 127 (D.D.C. 1985)).
[208] 40 C.F.R. § 1500.1(b) ("The regulations in this subchapter are intended to ensure that relevant environmental information is identified and considered early in the process in order to ensure informed decision making by Federal agencies.")); *see also Env't. Def. Ctr.*, 36 F.4th 850, 873 (explaining that the agency cannot rely on inaccurate, incomplete data to "formulate an estimate for evaluating environmental impacts under NEPA.").

properly abide by NEPA.[209] Second, the Forest Service has utterly failed to provide information, including detailed maps and data regarding stand ages, to support its conclusion that the Project will promote forest health and biodiversity in a manner consistent with the Forest Plan. The Forest Service must compile a complete set of data before it can effectively take the requisite hard look at the potential environmental effects of this proposed action. [210]

More fundamentally, the Preliminary FONSI rests on the unsupported finding that the "potential environmental effects will be site-specific, localized to the project area, and will not be measurable at a regional or larger scale."[211] Indeed, contrary to NEPA requirements, the Preliminary FONSI fails to adequately characterize the potentially affected environment and degree of Project impacts.[212]

Potentially affected environment

The "potentially affected environment" is the context for the Project. As CEQ has previously explained, context under NEPA requires that the significance of an action must be analyzed in several contexts such as "national, regional, or local," the affected area, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend on the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant."[213]

The Preliminary FONSI's discussion of "potentially affected environment" does not rationally establish the context for the analysis of impacted resources. The only analysis addressing the matter of the potentially affected environment states the Project Area "encompasses about 1,800 of the more than 800,000 acres of lands administered by the White Mountain National Forest," and the "potential environmental effects . . . will not be measurable at a regional or larger scale."[214]

The Forest Service's resort to simple numeric measurement of the size of the Project and the size of the WMNF improperly minimizes and obfuscates localized impacts from Project activities. The Forest Service is not allowed to sweep significant impacts under the rug by

[209] *See also WildEarth Guardians v. Jeffries*, 370 F. Supp. 3d 1208, 1235 (D. Or. 2019) ("The problem is that, without data identifying the location of calving sites and wallows, the Forest Service cannot meet its obligation to protect those sites or minimize disturbance to [elk]."); *Sierra Club v. Martin*, 71 F. Supp 2d 1268, 1319 (N.D. Ga. 1996) (finding that, because there was no population data, quantitative data, or other adequate information, the Forest Service did not have sufficient facts or evidence regarding sensitive and endangered species to support its finding of no significant impact).
[210] *Contrast Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1250 (9th Cir. 2005) (finding accurate data to determine species viability where the Forest Service had monitored goshawks in the Helena National Forest for more than eight years).
[211] Draft EA at 29; *see also* Section V, *infra* (explaining how the Forest Service relies on data that is either not provided for the public to review or non-existent).
[212] 40 C.F.R. § 1501.3(b)(2) (2020).
[213] *Id.* § 1501.3(b)(1) (2020).
[214] Draft EA at 29.

pointing to the vastness of the forest surrounding the Project.[215] This approach is at odds with CEQ's 2020 position that "in the case of a site-specific action, significance would usually depend only upon the effects in the local area."[216] With greater consideration of the potentially affected environment, the Forest Service would find that the Project is a major federal action significantly affecting the quality of the human environment.

Degree of impacts

The Forest Service also failed to consider the degree of the Project's effects, which CEQ previously referred to as "intensity," or "severity of impact." The Preliminary FONSI contains only a cursory review of the "degree" factors in the 2020 CEQ regulations, focused on summarizing the Draft EA's analysis of the "*beneficial and adverse effects*" of the Project. For the same reasons the Draft EA fails to take a hard look at the Project's environmental impacts, the Preliminary FONSI fails to adequately characterize those impacts or their "degree."

The Preliminary FONSI also fails to analyze the "*degree to which the proposed action affects public health or safety*,"[217] concluding only that the Forest Service "has implemented this type of project and similar project activities many times on National Forest System lands locally and in the region without substantial impacts to public health or safety."[218] Repeated reliance on the fact that similar projects have occurred in the past ignores the fact that each project location is unique and therefore requires its own analysis of potential impacts. In addition, no evidence has been presented to support the claim that there have not been "substantial impacts to public health or safety" from past projects. It would undermine the entire purpose of NEPA to allow for general types of past actions to justify future actions. NEPA analysis is done on a project-specific basis.

Moreover, the Forest Service fails to describe the very real risks to public health and safety in the Forest or to ensure that these are minimized or avoided.[219] For example, in light of recent, catastrophic flooding in New England—and around the world—the Forest Service should consider how old forests can mitigate the catastrophic effects of climate change. In fact, old forests are also the most resilient to changes in the climate, producing the highest outputs of ecosystem services like clean water, and reducing the impacts of droughts and floods. These ecosystem services protect downstream communities from flooding, purify drinking water at low cost, and maintain base flows and low temperatures in rivers during hot summers for the benefit of fish and wildlife. In New England, frequent flooding and nutrient-driven water quality degradation are two of our most costly environmental crises, and both are compounded by climate change. Mature and old forests naturally mitigate damage caused by flooding and drought by slowing, sinking, and storing water that would otherwise rapidly flow into our

[215] *Pac. Coast Fed'n of Fisherman's Ass'ns v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1035-37 (9th Cir. 2001) (agency cannot minimize impact of activity by adopting scale of analysis so broad that it trivializes site-level impact).
[216] 40 C.F.R. § 1501.3(b)(1) (2020).
[217] *Id.* § 1501.3(b)(2).
[218] Draft EA at 32.
[219] *Id*.

streams, rivers, and lakes.[220] Scientists have also shown that old forests are exceptional at removing nutrients that drive harmful algae blooms, like phosphorus.[221]

The Draft EA makes scant mention of impacts to quality of life and public safety from logging. Impacts from logging could include noise and air pollution, damage to local roads, interruptions to emergency services, and others. The Draft EA simply dismisses the impacts as "limited."[222] Given the impacts of the Project on mature forests' contributions to public health and safety, this factor weighs in favor of requiring a finding of significance and the preparation of an EIS.

Finally, the Preliminary FONSI does not demonstrate that the Project's effects would not "violate Federal, State, or local law protecting the environment." This is particularly true because the Forest Service fails to clarify the NEPA regulations or guidance it is applying in its review of the Project, variously citing the 2020 and 2022 regulations and then adhering to the administration's repeal of those regulations.[223] This totally inhibits the public from contributing meaningfully, and it creates uncertainty regarding what NEPA procedures and standards are applicable here. And, for the reasons discussed in this comment, the Project risks substantial noncompliance with the ESA or NFMA. This factor also weighs in favor of preparing an EIS.

We note as well that, even assuming that the analysis in the Draft EA was sufficient on its own terms, the Preliminary FONSI fails to follow Forest Service regulations implicating other context and intensity factors. Under Forest Service regulations, a FONSI must "describe the impacts of the proposed action and any alternatives in terms of context and intensity as described in the definition of 'significantly' at 40 CFR 1508.27 ([1978)]," something that the Forest Service did not even attempt to do here.[224]

In summary, the Preliminary FONSI does not adequately support the Service's decision not to prepare an EIS, in violation of NEPA.

V. The Forest Service Continues to Sidestep Meaningful Public Involvement.

The Forest Service must make diligent efforts to involve the public in preparing and implementing their NEPA procedures.[225] It must provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents that will inform those interested or affected persons and agencies.[226] Further, it must hold or sponsor public hearings, meetings, or other opportunities for public

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[220] Underwood and Brynn, ENHANCING FLOOD RESILIENCY OF VERMONT STATE LANDS, 8-10, 13 (Vt. Forests, Parks & Recreation 2015) (Exhibit 60 to Standing Trees Sandwich Comment).
[221] Warren et al., ECOLOGY AND RECOVERY OF EASTERN OLD-GROWTH FORESTS 161 (Island Press 2018) (Exhibit 61 to Standing Trees Sandwich Comment).
[222] Draft EA at 30.
[223] *Compare* Draft EA at 5 (explaining that this "environmental analysis is conducted according to the Council on Environmental Quality's 2022 regulations . . .") *with* Draft EA at 29 (explaining that "the responsible official made the… determinations with regards to the potentially affected environment and degree of effects considered for a Finding of No Significant Impact in accordance with the 2020 CEQ regulations….").
[224] 36 C.F.R. § 220.7(b)(3)(iii).
[225] 40 C.F.R. § 1506.6(a).
[226] *Id.* § 1506.6(b).

involvement whenever appropriate.[227] An EA must "provide sufficient evidence and analysis . . . to determine whether to prepare either an EIS or a FONSI."[228]

Within the context of the Lost River IRP, the Forest Service has largely repeated the same mistakes of short-circuiting public involvement as they have in previous Projects.[229] As in the recent past, the Forest Service has failed to (1) adequately involve the public, (2) provide sufficient evidence to support projects' purpose and need statements and to demonstrate compliance with the Forest Plan and other statutes and regulations, (3) meaningfully respond to requests for information or current scientific evidence offered by Standing Trees and others,[230] and (4) obtain up-to-date information regarding the NLEB.

With an EIS, the Forest Service could remedy these issues and expand public participation. In particular, the Forest Service could extend public comment periods beyond the bare minimum and could host additional public meetings, including online, in the future to give the interested or affected persons and entities the meaningful opportunity to engage with the Project development process. To fulfill its duty under NEPA to solicit public participation,[231] the Forest Service should improve its public participation practices.

In direct contravention of NEPA, the Forest Service has repeatedly failed to "provide public notice of . . . the availability of environmental documents,"[232] which are intended to inform the public's ability to meaningfully comment, propose alternatives, and object, if necessary, to Forest Service integrated resource and vegetation management projects. The Service should not repeat these failings here.

VI. The Draft EA Does Not Demonstrate Compliance with the National Forest Management Act

NFMA requires that projects on National Forest lands "shall be consistent with the land management plans."[233] The Forest Plan contains goals, standards, and guidelines for various MA's, including MA 2.1 where Project activities will occur. While the Forest Plan includes specific goals for lands in MA 2.1, for many resource types, it states that "[f]orest-wide standards and guidelines apply." The Forest Service must demonstrate compliance with these forest-wide standards and guidelines in its plans for the Lost River IRP; in the case of guidelines or other Forest Plan management directions, any deviations must be supported by reasoned, well-supported analysis. The Forest Service must ensure that all Project activities are designed to

[227] *Id*. § 1506.6(c).
[228] 36 C.F.R. § 220.7(b)(3)(i).
[229] Standing Trees Sandwich Comment at 57-59; Standing Trees Peabody West Objection at 48-50; Standing Trees Lake Tarleton Objection at 9-13.
[230] *See, e.g.*, Exhibit 8; Scoping Comment Report; UNITED STATES FOREST SERVICE, *Response from Forest Service: Lake Tarleton Long Form* (failing to adequately—or even accurately, at some points—respond to meaningful submissions by Standing Trees and other commenters) (Exhibit 19 to Standing Trees Scoping Comment).
[231] *See* 40 C.F.R. § 1506.6(c).
[232] *Id*. § 1506.6(b).
[233] 16 U.S.C. §1604(i).

follow the Forest Plan, and yet the Draft EA indicates that, in important respects, the Service has not supported its claims of compliance, in violation of NFMA.[234]

Forest health and biodiversity objectives

As extensively discussed above, the Forest Service has failed to justify its conclusions that the Project complies with the Forest Plan's vegetation, forest health, biodiversity, and age-class requirements, in light of its failures to provide stand age or survey information that could be used to demonstrate the amount of "old age class" forest in the HMUs and whether the Project would affect any stands with old forest or old-growth habitat, which the Forest Plan forbids.[235] This lack of reasoned, transparent decision-making presents the risk of significant Forest Plan violations and therefore violates NFMA.

Species protection

The Forest Service also fails to consider the project within the greater context of New England and the importance of the Project area's habitat, which provides for species protection and interconnectivity. As discussed in more detail above, the Project fails to contribute to the "conservation and recovery" of the NLEB and its habitat, as required by the Forest Plan.[236] The Forest Service also fails to meet NFMA requirements because the Forest Plan requires that "[a]ll project sites must be investigated for the presence of [TES] species and/or habitat . . . TES plant surveys must be completed for all new ground-disturbing projects, unless biologists/botanists determine TES species occurrence is unlikely (e.g., no habitat exists)."[237] The Forest Service's use of admittedly "limited" surveys does not fulfill its obligation to conduct a survey to investigate the presence of the NLEB prior to ground-disturbing projects.[238] Given the proximity of the project area to a known hibernaculum, the Forest Service must ascertain where bats are in the project area to comply with the Forest Plan.

Water resources

The Forest Plan's Management Area Direction for Water Resources in MA 2.1 states, "Forest-wide standards and guidelines apply."[239] The Plan's discussion of Water Resources sets the goal that "[s]urface waters on the [WMNF] are considered 'outstanding resource waters,' and water quality is maintained or improved to protect existing and designated instream water uses such as aquatic life."[240] However, logging has the potential to worsen, rather than maintain or improve, water quality in and around the Project area.

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[234] It should also be noted that the Forest Plan itself is out of date, and is therefore out of compliance with NFMA, which provides that land and resource management plans shall be revised "at least every fifteen years." 16 U.S.C. § 1604(f)(5). The current Forest Plan was published in 2005, and as of this submission, it is three years past due for revision.
[235] *See generally* Part I & III, *Vegetation and forest health*, *supra.*
[236] WMNF Plan at 1-8.
[237] WMNF Plan at 2-13.
[238] Biological Evaluation at 11.
[239] WMNF Plan at 3-8.
[240] *Id.* at 1-17–1-18.

A USDA study of the effect of clearcutting on streamflow in a New Hampshire forest found that "[a]s a result of nearly eliminating transpiration and of reducing canopy interception losses, streamflow . . . increased greatly during each of the first two water years after clearing," with post-clearcut streamflow peaking at 40% higher than pre-treatment estimates.[241] Other researchers have pointed out that vegetation management activities can cause impacts such as "increased water temperatures and suspended sediment concentrations" both in the immediate area and downstream, in unlogged parts of the forest.[242] Furthermore, even when buffers are used to protect waterways, "[t]he presence of a riparian buffer typically has little effect on harvesting-related changes in stream flow . . . and may not protect against increases in sediment input."[243] A recent study of forest management impacts in the watershed for the drinking water reservoir of Auburn, ME found that:

> Removing trees decreases canopy interception and evapotranspiration and thus temporarily increases water yield (and possibly sediment and nutrient load) from the land (Fulton & West, 2002). The potential for sediment delivery to streams is a long-term concern for nearly all harvesting activities and roads or skid trails regardless of their use or age (EPA, 2020). There is also the risk of fuel or hydraulic fluid contamination from machinery leaks. In summary, timber harvesting is not a strategy for water supply protection that reduces contamination risk, but rather constitutes an additional and perhaps unnecessary risk to the water supply...[244]

In its scoping comment, Standing Trees asked the Forest Service to assess the current water quality of the ponds, streams, wetlands, and other water resources within the Project area to establish a baseline.[245] We also asked the Service to analyze the likely effects of the planned logging activities, road construction, and campsite development on the quality of these waterways and to assess whether its planned activities will comply with the Clean Water Act's provisions for permit-exempt silvicultural activities, and it should share that information and reasoning with the public.[246]

In the Draft EA, as discussed above, the Forest Service instead relied on a Forest-wide white paper, a metric for water quality impacts that was not included in the Forest Plan, and never did such site-specific analyses. This failure to conduct site-specific analysis contravenes the Service's obligation to demonstrate compliance with the Forest Plan's water quality goals.

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[241] J.W. Hornbeck et al., *Streamflow Changes After Forest Clearing in New England*, 6 WATER RES. RSCH. 1124, 1126 (1970) (Exhibit 24 to Standing Trees Scoping Comment).
[242] R. Dan Moore & John S. Richardson, *Natural Disturbance and Forest Management in Riparian Zones: Comparison of Effects at Reach, Catchment, and Landscape Scales*, 31 FRESHWATER SCI. 239, 240 (2012) (Exhibit 25 to Standing Trees Scoping Comment).
[243] *Id*.
[244] FB Envtl. Assocs. et al, *A Regulatory, Environmental, and Economic Analysis of Water Supply Protection in Auburn, Maine* (October 2021), *available at* https://www.auburnmaine.gov/CMSContent/City_Manager/LakeAuburn_FinalReport%20UPDATED.pdf. (**Exhibit 12**).
[245] Standing Trees Scoping Comment at 26.
[246] *Id.*; 40 C.F.R. § 232.3(c)(1).

Soil resources

The Forest Plan's Management Area Direction for Water Resources in MA 2.1 does not address Soil Resources, either to give MA-specific guidance or to incorporate the Forest-wide standards. In the absence of such direction, the Forest Service should follow the Forest-wide Soil Resources standards. These standards provide that a goal of forest management is "to protect the long-term sustainability of the soil resource with an emphasis on maintaining appropriate soil nutrients." To comply with the Forest Plan, the Forest Service should analyze the likely impacts of highly disruptive vegetation management activities, such as clearcutting with reserves and patch clearcutting, on soil health. In order to assess these impacts accurately, the Forest Service should first analyze the current soil conditions to establish a baseline against which the impacts of the Project can be compared.

Scenic resources

As detailed above, the Service has proposed a Project with extensive deviations from the Forest Plan scenic guidelines in an area of the Forest treasured for its scenic beauty and recreational resources. As we have explained, the Service has failed to explain those deviations with any rational explanations in the Draft EA or the Scenery Report.[247] The Project as proposed thus violates the Forest Plan, and the Service must address this noncompliance before proceeding with the Project.

Scientific knowledge and ecosystem viability

The Forest Plan requires the use of "the latest scientific knowledge to restore the land and forest where needed" and emphasizes a focus on "ecosystem viability within the context of New England."[248] 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."[249] As discussed in Standing Trees' Scoping Comment,[250] and in this comment at great length, the Project fails to use the latest scientific knowledge to restore the land.

The Project ignores relevant scientific knowledge of healthy forests and their importance to building climate resilience. The proposed treatments are not appropriate methods to meet the objectives and requirements of the Forest 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," as high quality scientific analysis and public scrutiny are essential to NEPA implementation.[251] The Project does not use the best available science based on its failure to analyze and incorporate the conclusions of numerous recent studies on forest ecology, biodiversity, forest carbon, water quality, and more.

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[247] *E.g.*, Section III, *Scenic and recreational values*, *supra.*
[248] WMNF Plan at 1-3.
[249] 16 U.S.C. §§ 1604(g)(3)(E)(i), (F)(v).
[250] Standing Trees Scoping Comment at 22-23.
[251] 36 C.F.R § 219.3; 40 C.F.R. § 1500.1(b).

Public participation

In the Forest Plan, the Forest Service asserted that "[p]ublic participation will be an important part of the process we use for making site-specific management decisions."[252] With scant evidence that public participation provided any meaningful direction to the Project, and evidence of impediment to public participation discussed elsewhere in this comment, the Project reflects an abdication of this commitment.

VII. Conclusion

For the foregoing reasons, Standing Trees requests the Forest Service change course on the Lost River IRP and, at a minimum, correct the deficiencies of the Draft EA. To cure these errors, and given the significance of this Project, the Forest Service should prepare an EIS to adequately evaluate the significant impacts posed by the Project and develop revisions to the Project to ensure compliance with NFMA.

Respectfully submitted,

STANDING TREES

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[252] WMNF Plan Appendix A at A-235.

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TABLE OF EXHIBITS

Number	Exhibit Title
1	Foster et al., Wildlands in New England: Past, Present, and Future. Harvard Forest Paper 36. Harvard University (2023)
2	DellaSala et al., *Measuring forest degradation via ecological-integrity indicators at multiple spatial scales,* BIOLOGICAL CONSERVATION (Dec. 13, 2024)
3	Markuljaková et al., *Rewilding beech-dominated temperate forest ecosystems: effects on carbon stocks and biodiversity indicators*, IFOREST (Feb. 2, 2025)
4	Brown et al., *Net carbon sequestration implications of intensified timber harvest in Northeastern U.S. forests*, ECOSPHERE (2024)
5	Birdsey et al., *Middle-aged forests in the Eastern U.S. have significant climate mitigation potential*, Forest ECOLOGY AND MANAGEMENT (Sep. 14, 2023)
6	Jong et al., *Increases in extreme precipitation over the Northeast United States using high-resolution climate model simulations*, NPJ CLIMATE AND ATMOSPHERIC SCIENCE (2023)
7	Peng et al., *The carbon costs of global wood harvests*, NATURE (Jul. 5, 2023)
8	E-mail from Theresa Corless, Forest Planner and Env't Coordinator, U.S. Forest Serv. to Zack Porter, Exec. Dir., Standing Trees (Apr. 28, 2025, 3:22pm)
9	Birdsey et al., *Assessment of the influence of disturbance, management activities, and environmental factors on carbon stocks of U.S. national forests*, GENERAL TECHNICAL REPORT MRRS-GTR-402 (Nov. 2019), *available at* https://www.fs.usda.gov/rm/pubs_series/rmrs/gtr/rmrs_gtr402.pdf
10	Bradley H. Hopp et al., *Maximum likelihood estimators are ineffective for acoustic detection of rare bat species*, PLOS ONE, 11 (Apr. 2025)
11	Abagael Giles, *Snowshoe hares have a camouflage problem. These scientists want to help*, WBUR (April 25, 2025), https://www.wbur.org/news/2025/04/25/snowshoe-hares-climate-change-new-england-no-snow
12	FB Envtl. Assocs. et al, *A Regulatory, Environmental, and Economic Analysis of Water Supply Protection in Auburn, Maine* (October 2021), *available at* https://www.auburnmaine.gov/CMSContent/City_Manager/LakeAuburn_FinalReport%20UPDATED.pdf