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USDA Forest Service, Eastern Region
626 East Wisconsin Avenue
Milwaukee, WI 53202

September 22, 2025

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

**Re: Objection under 36 C.F.R. § 218.8 to Lost River Integrated Resource Project,
Pemigewasset Ranger District, White Mountain National Forest**

Dear Reviewing Officer Ibarguen:

This is an objection by Standing Trees and Sierra Club New Hampshire, (the “Objectors”) to the Lost River Integrated Resource Project (“Project” or “Lost River IRP”).¹ The responsible official is District Ranger Brooke M. Brown, and the ranger district on which the Project is proposed to be implemented is the Pemigewasset Ranger District, White Mountain National Forest, New Hampshire.² As detailed below, this objection meets applicable requirements for filing an objection in 36 C.F.R. § 218.8, and it implores the Forest Service (“Service”) to rescind the project or, at a minimum, withdraw its legally deficient Environmental Assessment (“EA”) and prepare an Environmental Impact Statement (“EIS”) that thoroughly fulfills the Service’s myriad legal obligations.

The Forest Service is proposing the Lost River IRP, a substantial commercial timber harvest and associated activities that would cover 1,800 acres within the White Mountain National Forest (“WMNF” or “Forest”).³ The project area is located within the Elbow Pond Habitat Management Unit (“HMU”) and the Franconia Notch HMU and falls within the National Forest’s Management Area 2.1 (General Forest Management).⁴ According to the WMNF Forest Plan (“Plan”), “the purpose of this management area is to provide a sustained yield of high-quality timber products; provide a balanced mix of habitats for wildlife; provide a variety of recreation

¹ All exhibits are listed at the end of this objection, and the exhibits themselves are enclosed in our electronic filing.

² U.S. Forest Serv., Notice of Availability of Lost River Integrated Resource Project Draft Notice, *New Hampshire Union Leader* (Aug. 8, 2025), https://www.unionleader.com/classifieds/legals/all_legals/usda-forest-service-white-mountain-national-forest-pemigewasset-ranger-district/ad_b04d56e%e2%80%a6/ [<https://www.fs.usda.gov/r09/whitemountain/projects/63401>] (Exhibit 1) (Exhibit 1 to Standing Trees Sandwich VMP Objection).

³ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT 6, (Aug. 2025) [hereinafter FINAL EA].

⁴ *Id.* at 36.

opportunities; and manage high-use or highly developed recreation areas to acceptable social and ecological standards while retaining some low-use and less developed areas.”⁵ Specifically, the Service cites the lack of age-class diversity within the HMUs and the need to increase the forest’s ability to adapt to climate change-related stressors as rationales for the proposed management actions.⁶

I. Summary of Objections

The Objectors summarize the grounds for this objection as follows.

First, the Final EA does not comply with the National Forest Management Act (“NFMA”) requirement that all projects be consistent with the Plan. Specifically, the Project fails to meet the Service’s obligations: to promote forest health and biodiversity objectives; protect sensitive and listed species, including the Northern Long-Eared Bat (“NLEB”); ensure adequate water quality and quantity; protect soils from degradation; meet scenic integrity objectives; use the best available scientific knowledge to ensure ecosystem viability; and ensure meaningful public involvement.

Second, the Project’s Purpose and Need Statement is unsupported by transparent and scientifically rigorous analysis. The agency suggests that the only way to achieve its management goals is to perform the actions exactly as proposed, but this outlook is legally deficient because the Service failed to adequately consider the most current science on the benefit of mature forests and failed to present accurate data in the HMUs.⁷

Third, the Final EA violates the National Environmental Policy Act (“NEPA”) because it fails to consider a full range of reasonable alternatives to the project, including a genuine “no action” alternative. The Service suggests the only way to achieve the agency’s goal of bringing the HMUs in line with Forest-wide management targets is to perform the actions exactly as proposed. Without an adequate look at reasonable alternatives, it cannot rationally conclude as much.

Fourth, the Service’s alleged adherence to outdated regulations is misleading in its application of NEPA and Council on Environmental Quality (“CEQ”) regulations. While the Draft and Final EA state the Project was developed and assessed under the 2022 CEQ NEPA regulations, the Service made the Finding of No Significant Impact (“FONSI”) under the 2020 CEQ regulations.⁸ This inconsistency is not in accordance with law and creates confusion, making it impossible for the public to understand the Project’s legal framework.

⁵ *Id.* at 6. See also 4 U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN at 3-3.

⁶ *Id.*

⁷ 4 U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN at 2-13; Glossary 21.

⁸ *Id.* at 5, 36.

Fifth, the Service has violated NEPA's core requirement to ensure meaningful public involvement. The Service relies on science that is either outdated or inherently flawed. It has neglected to make such information available until the opportunity for comment has elapsed, including failing to identify the potential for cumulative impacts from the X178-2 Project until the Final EA, and the Service purports to reserve the right to make substantive future decisions without providing any opportunity for public comment. The public has not been provided with the opportunity to evaluate or even understand the rationales supporting the Service's decision.

Sixth, the Final EA violates NEPA because the Service failed to take the requisite "hard look" at the environmental consequences of the Project for multiple resources including impacts to vegetation and forest health, carbon storage and climate, sensitive species including the NLEB, water quality, roadless areas, road construction, scenic and recreational values, and soils. In addition, the Service failed to take a "hard look" at the cumulative impacts of these resources in the WMNF, and failed to consider critical new developments, such as the proposed rescission of the Roadless Rule, in its cumulative impacts analysis.

Finally, the Project will have significant impacts and requires an EIS. The Service misapplied the relevant factors for significance and therefore violated NEPA by proceeding with an EA and FONSI instead of an EIS. The deficient analysis informing the FONSI ignored the potential for significant impacts in the Project area and the greater WMNF.

II. This Objection Meets the Threshold Requirements Under 36 C.F.R. § 218.8(c) to Raise Issues Based Either on Previously Submitted Specific Written Comments or New Information that Arose After the Opportunity for Comment

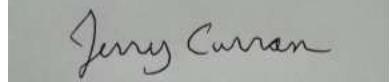
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Objectors filed specific written comments regarding the Project’s Draft EA on May 14, 2025 and August 1, 2025.⁹ All issues raised in this objection are either based on those comments or are related to new information, pursuant to 36 C.F.R. § 218.8(c).¹⁰ New information raised in this objection includes: reasonably foreseeable impacts stemming from the proposed rescission of the Roadless Area Conservation Rule, which was announced on August 29, 2025, after issuance of the Final EA and Draft Decision Notice;¹¹ comments on the cumulative impacts analysis for the Eversource X178-2 Project, which was first noted by the Service in the Final EA;¹² comments on the Transportation Analysis Plan which was only shared with the public alongside publication of the Final EA;¹³ the Lost River IRP Carbon Report and the Forest Carbon Assessment for the White Mountain National Forest in the Forest Service’s Eastern Region, which were also first shared with the public alongside publication of the Final EA;¹⁴ and comments related to the cumulative impacts of the Lost River IRP, in conjunction with the Waterville Valley Expansion, for which the Service announced its intent to prepare an EIS just two days after the Lost River Draft EA comment period closed.¹⁵

Sierra Club New Hampshire joins in this objection. Founded in 1990, Sierra Club New Hampshire is a state chapter of the Sierra Club, the nation’s oldest grassroots environmental organization. The chapter is a non-profit, volunteer-run, member-supported public-interest organization that promotes environmental protection in the Granite State. Its members frequently recreate in the National Forest, including in and near the Project area. The chapter joined Standing Trees’ comments on the Draft EA.¹⁶

⁹ Standing Trees & Sierra Club New Hampshire, Comment Letter on Draft Environmental Assessment and Preliminary Find of No Significant Impact for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest (May 14, 2025) [hereinafter Comment on Lost River IRP Draft EA] (Exhibit 15); Standing Trees & Sierra Club New Hampshire, Supplemental Comment on Draft Environmental Assessment and Preliminary Finding of No Significant impact for Lost River Integrated Resource Project (Aug. 1, 2025) (Exhibit 33).

¹⁰ 36 C.F.R. § 218.8(c) (“Issues raised in objections must be based on previously submitted specific written comments regarding the proposed project or activity and attributed to the objector, unless the issue is based on new information that arose after the opportunities for comment. The burden is on the objector to demonstrate compliance with this requirement. . . .”); *see also id.* § 218.8(d)(6) (requiring objections to Forest Service predecisional documents to include a “statement that demonstrates the connection between prior specific written comments on the particular proposed project or activity and the content of the objection, unless the objection concerns an issue that arose after the designated opportunity(ies) for comment”).

¹¹ *See infra*, Section VI.D. Special Areas; Roadless Area Conservation; National Forest System Lands, 90 Fed. Reg. 42179 (Aug. 29, 2025).

¹² FINAL EA, *supra* note 3, at 21.

¹³ *See infra*, Section VI.E; Supplemental 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 at 1-2.

¹⁴ *See infra*, Section VI.B.

¹⁵ *See infra*, Section VI.I.

¹⁶ Comment on Lost River IRP Draft EA, *supra* note 9, at 1.

TABLE OF CONTENTS

I. The Final EA Does Not Comply with the Legal Obligations of NFMA	7
A. Forest Health and Biodiversity Objectives	8
B. Species Protection	9
C. Water Resources	13
D. Soil Resources.....	14
E. Scenic Resources.....	15
F. Scientific Knowledge and Ecosystem Viability	18
G. Public Participation	19
II. The Service’s Purpose and Need Statement for the Project is Unsupported by Transparent, Scientifically Rigorous Analysis.....	19
A. The Purpose and Need Statement Failed to Consider and Incorporate the Best and Most Current Scientific Understanding.....	20
B. The Habitat Management Rationale Documents for the Project Lack Critical Data and Do Not Support the Purpose and Need Statement.....	21
C. The Purpose and Need Statement for the Project Ignores Essential Elements of the Forest Plan 23	
D. The Purpose and Need Statement’s Reliance on Outdated Science Restricts Alternatives Considered	24
III. The Final EA Fails to Consider a Full Range of Reasonable Alternatives to the Project, Including the “No Action” Alternative	25
A. The Service Must Consider a True “No Action” Alternative	25
B. The Final EA Fails to Analyze Appropriate Alternatives.....	27
IV. The Service’s Inconsistent Application of CEQ NEPA Regulations Throughout its Analysis is Arbitrary and Capricious	28
V. The Service Has Violated NEPA’s Core Requirement by Continuing to Sidestep Meaningful Public Involvement	29
VI. The Final EA Violates NEPA Because It Fails to Take the Requisite “Hard Look” at the Environmental Impacts of the Project.....	31
A. Vegetation and Forest Health.....	32
B. Carbon and Climate Impacts.....	33
C. Impacts to Sensitive Species Including the NLEB	37

D. Roadless Area Values and Characteristics	39
E. Road Construction Impacts.....	41
F. Water Quality Impacts	44
G. Scenic and Recreational Values	46
H. Soils Resources	47
I. Cumulative Impacts	48
VII. As Proposed, the Project Will Have “Significant” Impacts and Requires an EIS	52
A. The Service Fails to Adhere to NEPA by Inadequately Addressing the Significant Environmental Impacts in the Final EA.....	52
B. The Service Did Not Adequately Construe the Potentially Affected Environment	54
C. The Forest Service Did Not Adequately Consider the Degree of the Project’s Effects ...	55
D. The EA Makes Only Scant Mentions of the Impacts to Quality of Life and Public Safety	
56	
E. The FONSI Does Not Demonstrate that the Project’s Effects Would Not Violate Federal, State, or Local Laws Protecting the Environment	58
VIII. Conclusion	59
Table of Exhibits	60

DETAILED OBJECTIONS

I. The Final EA Does Not Comply with the Legal Obligations of NFMA

The Service shows a blatant disregard of their legal obligations under NFMA in the Final EA.¹⁷ NFMA requires that projects on National Forest lands be consistent with their underlying Forest Plans.¹⁸ The Plan contains goals, standards, and guidelines for various Management Areas (“MAs”), including MA 2.1 where Project activities will occur. Guidelines under the Plan are defined as “[a] required course of action or level of attainment,” and are intended to promote desired Forest conditions.¹⁹ Projects cannot deviate from guidelines unless warranted. Site-specific conditions and all deviations “must be documented in a project-level analysis and signed decision.”²⁰ Deviations must be justified and explain how the purpose of the guidelines is still met.²¹ Standards under the Plan are “course[s] of action that must be followed, or a level of attainment that must be reached, to achieve management goals and objectives.”²² Deviations from a standard must also be analyzed and documented but must be presented in a Plan amendment.²³

While the Plan includes specific goals for lands in MA 2.1, for many resource types, it states that “[f]orest-wide standards and guidelines apply.”²⁴ The Service must demonstrate compliance with these Forest-wide standards and guidelines in the Lost River IRP plans or provide the proper analysis and documentation of a deviation from the Plan. The Service must ensure that all Project activities are designed to follow the Plan, and yet the Final EA does not support the Service’s claims of compliance, which violates NFMA.²⁵

¹⁷ The Project and the Forest Services’ analysis of forest health, species protection, water resources, soil resources, scenic resources, scientific knowledge and public participation all differ in substantial respects from the projects analyzed in the recent decision in *Standing Trees v. United States Forest Service*, which the Objectors do not concede was correctly decided and is subject to appeal. For example, as explained in this section, Objectors’ concerns address violations of Forest Plan Scenic Standards, road building that violates Forest Plan Guidelines, and public participation issues, among others, which were not at issue in that case.

¹⁸ 16 U.S.C. § 1604(i) (Projects “shall be consistent with the land management plans.”); 36 CFR § 219.15(a) (“All projects and activities authorized after approval of a plan . . . must be consistent with the plan . . .”).

¹⁹ U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN GLOSS-12 (2005) [hereinafter 2005 PLAN].

²⁰ *Id.*

²¹ 36 C.F.R. § 219.7(e)(1)(iv) (“A guideline is a constraint on project and activity decision making that allows for departure from its terms, *so long as the purpose of the guideline is met.*” (emphasis added)).

²² 2005 PLAN, *supra* note 19, at GLOSS-30.

²³ *Id.*

²⁴ *Id.* at iv.

²⁵ 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 five years past due for revision.

A. Forest Health and Biodiversity Objectives

The Service has failed to adequately justify its claims that the Project complies with the Plan’s vegetation, forest health, biodiversity, and age-class requirements.

As proposed, the Lost River IRP will run headlong into the Plan’s standards and guidelines. Forest-Wide Vegetation Management Standard S-3 states that “[t]imber harvest is prohibited in old growth forest.”²⁶ Further, Forest-Wide Vegetation Management Guideline G-1 states that “[o]utstanding natural communities should be conserved.”²⁷ The Plan also states that “[n]o harvest will occur in stands identified to provide old forest habitat.”²⁸ The 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.”²⁹ However, the Service fails to provide stand age or survey information that could be used to demonstrate the amount of “old age class”³⁰ forest in the HMUs and whether the Project would affect any stands with “old forest habitat” or “old-growth forest.”³¹ Indeed, the Service even goes so far as to *exclude* “old” age class from its tables, lumping the “old” age class in with “mature” age class, and withholds the ages and locations of stands within the HMUs.³² Certainly, old forest attributes could appear in stands that are otherwise classified as “mature” according to the Plan’s Appendix D.³³ Yet the Final EA contains absolutely no evidence that the Project will protect such stands, as required by the Plan³⁴—indeed, the Project targets mature forests.

The Plan directly forbids tampering old growth forests, and the Service must provide sufficient information to show the Lost River IRP will not violate this requirement.³⁵ This lack of reasoned, transparent decision-making presents significant Plan violations and therefore violates NFMA.

Additionally, both the Franconia and Elbow Pond HMU Rationales cite restoring the areas to the Potential Natural Vegetation (“PNV”) as a key Plan objective.³⁶ Just before confirming the importance of this objective, the Service notes that stands which are never harvested “would eventually attain old-growth characteristics and revert to the Potential

²⁶ 2005 PLAN, *supra* note 19, 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.” 2005 PLAN, *supra* note 19, at GLOSS–21.

²⁷ *Id.* at 2-13.

²⁸ *Id.* at GLOSS–21.

²⁹ *Id.* at D-2.

³⁰ *Id.* at GLOSS–21.

³¹ U.S. FOREST SERV., RATIONALE FOR HABITAT OBJECTIVES IN THE ELBOW POND HABITAT MANAGEMENT UNIT 5 (2023) [hereinafter ELBOW POND HMU]; *see infra* Section II.A, included Table, Footnote 2; *see also* U.S. FOREST SERV., RATIONALE FOR HABITAT OBJECTIVES IN THE FRANCONIA NOTCH HABITAT MANAGEMENT UNIT 5 (2023) [hereinafter FRANCONIA NOTCH HMU].

³² 2005 PLAN, *supra* note 19, at D-2.

³³ *Id.*

³⁴ *See generally infra* Section VI.A.

³⁵ ELBOW POND HMU, *supra* note 31, at 3; FRANCONIA NOTCH HMU, *supra* note 31, at 3.

Natural Vegetation.”³⁶ These statements are not mentioned, analyzed, or documented in the Final EA.

The Service is required to follow all standards and guidelines of the Plan or provide detailed analysis and documentation of the deviation. The Service must provide a full analysis of the Lost River IRP’s compliance with the Plan. This analysis must also include Plan amendments for all deviations from Plans standards and documentation or deviations from Plan guidelines.

Requested Remedy: The Service must provide comprehensive information on stand age and habitat make-up of the proposed Project areas. The Service must also provide an analysis showing how the Lost River IRP complies with all standards and guidelines of the Plan.

B. Species Protection

The Service fails to consider the Project within the greater context of New England’s biodiversity imperatives. The Project area’s habitat is of the utmost importance providing protection and interconnectivity for species, and particularly threatened and endangered species (TES). The Service fails to meet NFMA requirements because the 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).”³⁷ The Biological Evaluation states that botanists surveyed the action area, however, their findings remain unpublished by the Service, and thus, unavailable for public review.³⁸ The Final 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.³⁹ The Project also fails to contribute to the “conservation and recovery” of the NLEB and its habitat, as required by the Plan.⁴⁰

The information provided suggests that the Project, in fact, will adversely affect listed species in violation of the Plan. Indeed, based on the Biological Evaluation, the Final EA ultimately concedes that the Project is likely to adversely affect the 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.⁴¹ These circumstances suggest potential violations of the Endangered Species Act (“ESA”) and the Plan, which requires the Service to “contribute to conservation and recovery of [listed] species and their habitats.”⁴²

³⁶ ELBOW POND HMU, *supra* note 29, at 3; FRANCONIA NOTCH HMU, *supra* note 29, at 3.

³⁷ 2005 PLAN, *supra* note 19, at 2–13.

³⁸ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT BIOLOGICAL EVALUATION 7 (July 2025) [hereinafter BIOLOGICAL EVALUATION].

³⁹ FINAL EA, *supra* note 3, at 22–25.

⁴⁰ 2005 PLAN, *supra* note 19, at 1–8.

⁴¹ BIOLOGICAL EVALUATION, *supra* note 38 at 11.

⁴² 2005 PLAN, *supra* note 19, at 1–1, 1–8.

As discussed in Objectors' prior comments, the NLEB requires the type of habitat that the Project plans to remove from the area.⁴³ According to the United States Fish and Wildlife Service ("USFWS") Species Status Assessment Report for the NLEB, dated August 2022, the bat depends on mature and old forests for roosting and foraging.⁴⁴ Preferred roosting habitat is large diameter live or dead trees of a variety of species, with exfoliating bark, cavities, or crevices.⁴⁵ Bats change roosts approximately every two days,⁴⁶ and females often return to the same maternity area over multiple years.⁴⁷ Additionally, "mature forests are an important habitat type for foraging NLEBs[,] and "most foraging occurs . . . under the canopy . . . on forested hillsides and ridges."⁴⁸ Furthermore, NLEBs "seem to prefer intact mixed-type forests . . . for forage and travel rather than fragmented habitat or areas that have been clear cut."⁴⁹

The WMNF, including the Project area, contains extensive mature and old age class forests that contain or are beginning to acquire the characteristics of old forest habitat and old growth forests as defined by the Plan, likely providing some of the highest-quality NLEB habitat in New England. Yet, many of the silviculture treatment prescriptions in this Project plan to remove the mature and old forests essential to the NLEB's habitat.⁵⁰ Notably, the Lost River IRP contains 200 acres of clearcuts, which runs counter to the USFWS's findings about threats to NLEBs.

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."⁵¹ Although "limited" acoustic surveys did not locate any NLEB,⁵² a known hibernaculum exists just .15 miles outside the project area and 1.3 miles from the nearest point of the action area.⁵³ The "limited" acoustic surveys do not suffice, given well-known difficulties with identifying the NLEB's ambiguous call in small data sets.⁵⁴ Moreover, the single survey the Service relies upon is unpublished and has not been included in public Project documents.⁵⁵

⁴³ Standing Trees, Comment on Scoping Letter for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest 12 (Oct. 6, 2023) [hereinafter Scoping Comment] (Exhibit 14).

⁴⁴ U.S. FISH AND WILDLIFE SERV., SPECIES STATUS ASSESSMENT FOR THE NORTHERN LONG-EARED BAT (*MYOTIS SEPTENTRIONALIS*) 18 (version 1.2, Aug. 2022), <https://www.fws.gov/media/species-status-assessment-report-northern-long-eared-bat> [hereinafter SPECIES STATUS ASSESSMENT] (Exhibit 13).

⁴⁵ Northern Long-eared Bat, U.S. FISH & WILDLIFE SERV., <https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis> (last visited Sep. 22, 2025) (Exhibit 16).

⁴⁶ SPECIES STATUS ASSESSMENT, *supra* note 44, at 18.

⁴⁷ BIOLOGICAL EVALUATION, *supra* note 38, at 12.

⁴⁸ SPECIES STATUS ASSESSMENT, *supra* note 44, at 18.

⁴⁹ *Id.* at 18–19.

⁵⁰ FINAL EA, *supra* note 3, at 10 ("All units proposed for clearcutting would result in an immediate change from mature to regeneration age structure").

⁵¹ *Id.* at 11.

⁵² BIOLOGICAL EVALUATION, *supra* note 38, at 11.

⁵³ *Id.*

⁵⁴ Hopp et al., *Maximum Likelihood Estimators Are Ineffective for Acoustic Detection of Rare Bat Species*, PLOS ONE, Apr. 2025, at 1 (Exhibit 10).

⁵⁵ BIOLOGICAL EVALUATION, *supra* note 38, at 26.

Given the bats' expected presence in the action area, including the presence of a rare hibernaculum, the Service correctly determined the Project is likely to have both direct and indirect adverse effects on the NLEB.⁵⁶ The Biological Evaluation makes clear the Project poses risk of direct impacts to the NLEB: "Direct effects could be as mild as flushing bats from their roosts or as serious as injury or death. The greatest potential for injury and death would be during the summer maternity season (June 1 to August 15) when female bats and their non-volant young are less able to flee their roosts."⁵⁷ Timber harvest could occur on "(u)p to 234 acres within 430 gross acres [] proposed for harvest during the pup season."⁵⁸ An additional 587 acres (across 1010 gross acres) is slated for harvest during the bat's active season (April 15 to October 31), including pup season and the fall swarming period.⁵⁹

The Service has also chosen to ignore the impacts the Project will have on the Tricolored Bat ("TCB") despite acknowledging the TCB is likely to experience the same direct and indirect impacts as the NLEB.⁶⁰ Surprisingly, the Service did this without factual justification and counter to their report's determination of a significant likelihood of adverse effects on the TCB.⁶¹ In the Bat Programmatic Biological Assessment developed by the Service and USFWS, the agencies identified 244 acres of Project area which were likely to have an impact resulting in adverse effects on the TCB.⁶² Additionally, the Biological Opinion ("Biop") addresses the adverse effects to the TCB and NLEB jointly.⁶³ Shortly after explaining the likely adverse effects the TCB is expected to experience, the Service arbitrarily determines that the TCB will not be jeopardized without fully discussing the extent of harm to the animal.⁶⁴

While the Service has conducted a Project-specific analysis, it fails to fully characterize the risks to the NLEB and TCB from Project activities and to identify adequate and reasonable site-specific mitigation incorporated in the Final EA.⁶⁵ Specifically, the Service does not include what would seem to be the easiest mitigation measures of all: (1) avoiding timber harvest activities when bats are active during non-hibernation season (April 15 to October 31); and (2) avoiding cutting of any trees of three inches diameter at breast height (DBH).⁶⁶

Within the last year, the Service has finalized a Bat Conservation Strategy for eastern forests which has played a role in the Service's analysis here by providing certain generic conservation measures.⁶⁷ The Service is also apparently consulting with USFWS about additional measures to

⁵⁶ *Id.* at 12–13.

⁵⁷ *Id.* at 12.

⁵⁸ U.S. FOREST SERV., IPAC 2024-0021138, TIER 2 USFS BIOLOGICAL ASSESSMENT FOR INDIVIDUAL PROJECTS 10 (May 2025) [hereinafter TIER 2 BAT PROGRAMMATIC BIOLOGICAL OPINION] (Biological assessment for the Lost River Integrated Resources Project).

⁵⁹ *Id.*

⁶⁰ BIOLOGICAL EVALUATION, *supra* note 38, at 15.

⁶¹ *Id.*

⁶² TIER 2 BAT PROGRAMMATIC BIOLOGICAL OPINION, *supra* note 58, at 11.

⁶³ *Id.* at 10.

⁶⁴ BIOLOGICAL EVALUATION, *supra* note 38, at 15.

⁶⁵ TIER 2 BAT PROGRAMMATIC BIOLOGICAL OPINION, *supra* note 58.

⁶⁶ In another project, the Service determined that prohibiting harvesting of trees greater than three inches in diameter at breast height ("DBH") would result in a "No Effect" finding for the NLEB. *See* Section III.B.

⁶⁷ FINAL EA, *supra* note 3, at 23.

protect the NLEB.⁶⁸ None of this changes the grave risks that this Project poses to the NLEB based on the Service’s own unexplained and unexamined decisions to include Project components that are likely to harm the NLEB.⁶⁹ Failing to protect the NLEB, in such an unreasoned fashion, is a violation of NFMA.

The Service did not take a sufficiently hard look at the impacts the Lost River IRP will have on other species of wildlife. Mature and old growth forests are essential to the delicate ecosystems of the Lost River area. As Objectors have pointed out in previous comments, the ecosystems that the Service calls “old forests” are the natural ecological structure of northern New England’s forests.⁷⁰ As such, much of New Hampshire’s community of life evolved over millennia within these remarkable older 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, and herbivores such as elk and caribou.⁷¹ Many species we may think of as widespread today, such as bear, moose, beaver, and loons, were on the brink of extirpation only a short time ago.⁷² Canada lynx, NLEB, TCB, and American marten are teetering on the edge of extirpation or extinction. 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.⁷³ Indeed, the availability of dead and dying trees and downed wood is critical for the health of many species, from bats to American marten to invertebrates.⁷⁴

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 making the WMNF an important oasis of such habitat within New England. When this habitat is fragmented or degraded through activities such as logging, the species reliant on these ecosystems experience increased threats from interactions with humans, predation, changes in microclimates, the spread of invasive species and ticks, and other fragmentation and edge effects.⁷⁵ The Service did not thoroughly analyze how the fragmentation of habitat associated with the Lost River IRP will impact wildlife beyond merely the project benefits for widely abundant species.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ Scoping Comment, *supra* note 43, at 13-14 (Exhibit 14); Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest 35 (Aug. 30, 2023) (Exhibit 17); Standing Trees, Objection to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest 21 (June 12, 2023) (Exhibit 18); Standing Trees, Objection to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest 45 (May 1, 2023) (Exhibit 19).

⁷¹ Standing Trees, Objection to Tarleton IRP, at 45.

⁷² *Id.*

⁷³ Robert A. Askins, *The Critical Importance of Large Expanses of Continuous Forest for Bird Conservation*, BIOLOGY FACULTY PUBLICATIONS 24, 25 (2015) (Exhibit 20) (Exhibit 6 to Scoping Comment).

⁷⁴ Thorn et al., *The Living Dead: Acknowledging Life After Tree Death to Stop Forest Degradation*, 18 FRONTIERS ECOL. & ENV’T 505 (2020) (Exhibit 21) (Exhibit 7 to Scoping Comment); Bryn E. Evans & Alessio Mortelliti, *Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher*, ECOSPHERE 1, 2 (Apr. 3, 2022) (Exhibit 22).

⁷⁵ Comment on Lost River IRP Draft EA, *supra* note 9, at 27.

Requested Remedy: The Service must provide a detailed analysis on the impacts the Lost River IRP will have on the listed TES likely to be in the Project area, including analysis on how the project contributes to the conservation and recovery of each species. The Service must implement measures to mitigate any potential impacts to TES species. The Service must comply with the obligations of the Plan.

C. Water Resources

The Plan requires the Service to develop and document the Soil and Water Conservation Practices it intends to use in Project areas.⁷⁶ This requirement is intended to help the Service comply with Soil and Water Conservation Practices S-2, which states: “Water quality must be maintained and protected, except that some discharges may be allowed if they are of limited extent and duration and result in no more than temporary and short term changes in water quality.”⁷⁷ However, the Final EA does not contain any site-specific analysis, discuss the determination of the Project’s compliance with the CWA or Plan, or describe the Soil and Water Conservation Practices used for the Project. Specifically, the Final EA does not explain how Project actions will comply with the CWA’s provisions for permit-exempt silvicultural activities.⁷⁸ The Service is required to provide conclusive information on the Project’s compliance with both the CWA and Plan or analysis and documentation of any deviations from the Plan’s standards or guidance.⁷⁹

In addition, a recent study has determined that timber harvest, especially in newly harvested areas, can cause an increase of released dissolved organic material of up to four times the normal amount.⁸⁰ This increase in dissolved organic material can drastically change the molecular composition and quality of water in timber harvesting areas.⁸¹ As this study is new information that was published after the prior commenting opportunities, it must be considered in analyzing the water quality impacts of the Lost River Project. Without thorough analysis of the potential impacts of the project on water quality, the Service cannot represent that the Project is compliant with the CWA or the Plan.

Requested Remedy: The Service must provide site-specific analysis on the impacts the Project may have to the water and soil in the area, considering the findings in the newly submitted study, and show compliance with the CWA, the Plan, and NFMA.

⁷⁶ 2005 PLAN, *supra* note 19, at 2–30, S–1.

⁷⁷ *Id.* at 2–30, S–2.

⁷⁸ 40 C.F.R. § 232.3(c)(1).

⁷⁹ See Section VI.D for more analysis of the Service’s potential violation of the Clean Water Act.

⁸⁰ Freeman et al., *Logging Disrupts the Ecology of Molecules in Headwater Streams*, 122 PNAS 1 (Aug. 26, 2025) (Exhibit 23).

⁸¹ *Id.* at 2–5.

D. Soil Resources

The 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 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.”⁸² To comply with the Plan, the Service was required to analyze the likely impacts of highly disruptive vegetation management activities, such as clearcutting with reserves and patch clearcutting, on soil health. To assess these impacts accurately, the Service needed to analyze the current soil conditions to establish a baseline against which the impacts of the Project can be compared.

The best available science suggests that Project activities will have detrimental effects on soil resources. For example, hydrological and biogeochemical alterations have been documented within the soil-water interface of logged forests even with low-impact, selection cut techniques in tolerant hardwood stands with best management practices implemented to protect downstream waters.⁸³ Moreover, the increased concentrations of dissolved organic material in streams following timber harvest activities is a direct pathway for the escape of soil carbon—something the Service dismissed entirely as an issue.⁸⁴ Given that even low-impact measures more conservative than what the Service proposed for the Lost River IRP have these damaging consequences, the Service must revisit its soil resources analysis to ensure compliance with the Plan.

In addition, the Service has proposed actions that will likely require a site-specific modification of guidelines in the 2005 Plan without providing sufficient rationale for that modification. Guidelines permit the Service to “respond to variations in conditions” and may be modified or not implemented if “the rationale for doing so [is] documented in a project-level analysis and signed decision.”⁸⁵ In this case, the Soils Report acknowledged that the topography of the Project area means that skid trails would likely need to be built on grades of up to 35%.⁸⁶ This is inconsistent with Vegetation Management Guideline G-5’s requirement that skid trails be located on grades below 20%.⁸⁷ The Service asserts that “[b]y following the recommended best management practices and design features … no detrimental effects are anticipated....”⁸⁸ This assertion fails to justify the Service’s planned departure from Guideline G-5. Presumably, the 20% figure represented in the Forest Plan was not chosen arbitrarily—i.e., the Forest Plan might just as easily have prohibited skid roads being constructed on roads with a grade below 35% but did not—and surely the Forest Plan was drafted under the presumption that the Service would adhere to best management practices where feasible. The Service cannot logically justify its

⁸² 2005 PLAN, *supra* note 19, at 1-16.

⁸³ Freeman et al., *supra* note 82, at 7.

⁸⁴ *Id.*; See *infra* Section VI.B, Carbon and Climate Impacts.

⁸⁵ 2005 PLAN, *supra* note 19, at iv.

⁸⁶ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT SOILS REPORT 1 (updated Aug. 2025) [hereinafter SOILS REPORT].

⁸⁷ 2005 PLAN, *supra* note 19, at 2-30.

⁸⁸ SOILS REPORT, *supra* note 86, at 8.

departure from a particular guideline in the Plan by explaining that the Service will mitigate the negative impacts by going about things in the usual way.

Requested Remedy: The Service must analyze the current soil conditions and the likely impacts the Lost River IRP treatments could have on the soil in and around the Project area. The Service must show how the Lost River IRP complies with the obligations of the Plan.

E. Scenic Resources

The Project will violate Plan scenic standards and guidelines in one of the most well-traveled areas in the western White Mountains. Many of the Project's numerous clearcuts and even-aged treatments will be visible from the Appalachian Trail and the many peaks that loom over the Project area. The Service asserted the Project is consistent with relevant Plan scenic standards and guidelines, but the EA and Scenery Effects Analysis do not support such a conclusion. The Service excused some exceedances to meet other objectives, which is not permitted by the Forest Plan. In other areas, the Service explained its creative design will reduce visible acreage to bring the Project into compliance. Yet, these design elements fail to yield the necessary reductions in visible acreage the Plan calls for. Ultimately, in proposing a Project that fails to meet scenic integrity objectives, the Project violates Forest-Wide Scenery Management Standard S-2.

Like the Draft EA, the Final EA makes clear that four of the Project's clearcuts exceed Plan limits on visible acres. Two Plan guidelines are relevant here, Scenic Guidelines G-3 and G-5. G-3 concerns areas designated for a high scenic integrity objective, and states the maximum observed opening size should not exceed 5 acres.⁸⁹ Additionally, if openings occur, they should appear as natural occurrences and be well-distributed in the landscape.⁹⁰ G-5 states observed openings should not exceed 10 acres in areas with medium scenic integrity objectives.⁹¹

The Final EA mentions that the four clearcuts will exceed Scenic Guidelines G-3 and G-5.⁹²

- 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. This exceeds the upper limit of G-3 by almost 50 percent.⁹³
- Unit 54 has a high Scenic Integrity Objective and is proposed for clearcutting, 8.2 acres of which will be visible from the Tecumseh viewpoint. This exceeds the upper limit of G-3 by more than 60 percent.⁹⁴

⁸⁹ 2005 PLAN, *supra* note 19, at 3–6.

⁹⁰ *Id.*

⁹¹ *Id.* at 3–8.

⁹² U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT: SCENERY RESOURCES EFFECTS ANALYSIS 32 (July 31, 2025) [hereinafter SCENERY EFFECTS ANALYSIS].

⁹³ *Id.*

⁹⁴ *Id.*

- Unit 59 has a moderate Scenic Integrity Objective, and is planned for a clearcut, 12.9 acres of which will be visible from the Tecumseh viewpoint. This exceeds G-5's limit by almost 30 percent.⁹⁵
- Unit 63 has a moderate Scenic Integrity Objective, and is proposed for a clearcut, 10.9 acres of which will be visible. This exceeds G-5's limit by almost 10 percent.⁹⁶

The Final EA states these exceedances are intended to “better meet project-level objectives for the Elbow Pond HMU, and to move the Forest toward desired conditions consistent with the Plan.” This is impermissible. Forest-Wide Scenery Management Standard S-2 instructs “Scenic Integrity Objectives will be met by[:]” (a) “[a]pplying the technical principles and guidelines outlined in the *National Forest Landscape Management Handbook* series...”; (b) “Following examples of Scenic Integrity Objectives found in Appendix H of *Landscape Aesthetics – A Handbook for Scenery Management*;” and (c) “Following current and/or future guidelines developed specifically for the White Mountain National Forest to achieve Scenic Integrity Objectives within individual management areas.”⁹⁷

The Service did not explain how technical principles from the *National Forest Landscape Management Handbook*, or examples of Scenic Integrity Objectives from *Landscape Aesthetics* apply here. Thus, the only option it has left is to comply with applicable Plan guidelines for scenery management.

Even if the Service did explain how it would comply with Forest-Wide Scenery Management Standard S-2 using the methods outlined in S-2(a) or (b), the Service still impermissibly deviated from Scenic Guidelines. It did not explain why one objective should take precedence over another. The purported justification for deviating from Scenic Guidelines does not explain how the action will still meet the purpose of the guideline.⁹⁸ The Project is not consistent with relevant Plan standards and guidelines for scenery management.

The Service explained in the Final EA that design elements were added to the project to “minimize impacts to scenery resources consistent with Plan direction.”⁹⁹ Yet, scrutiny of its analysis of scenery impacts demonstrates the design elements do not minimize scenic impacts.

Buried in the Scenery Effects Analysis, the Service acknowledges four more cutting units, 18, 48, 49 and 50, will exceed the visible acreage permitted under the Plan from multiple viewpoints. The 30-day Comment Period and Response Report stated that the “Scenery Report will be revisited to clarify how minimization measures reduce visible acres to the viewpoints listed.”¹⁰⁰

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ 2005 PLAN, *supra* note 19, at 2–26, S–2.

⁹⁸ See 36 C.F.R. § 219.7(e)(1)(iv) (“A guideline is a constraint on project and activity decision making that allows for departure from its terms, *so long as the purpose of the guideline is met.*” (emphasis added)).

⁹⁹ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT DRAFT ENVIRONMENTAL ASSESSMENT AND PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT 32 (Apr. 2025) [hereinafter DRAFT EA].

¹⁰⁰ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT DRAFT ENVIRONMENTAL ASSESSMENT 30-DAY COMMENT PERIOD SUMMARY AND RESPONSE REPORT 10 (Aug. 2025) [hereinafter Draft EA Comment Response Report] (Exhibit 24).

Seemingly, no changes were made to treatment acreage to bring treatment units into compliance with relevant Plan Scenic Guidelines. The Service added a single sentence for each offending unit that merely restates its assertion that included design features will reduce total visible acreage. The Service provided no explanation for how the design features will significantly reduce visible acreage, in some cases by more than 60 percent.

For example, Unit 50 is proposed to be clearcut, and has a moderate scenic integrity objective. It exceeds Scenic Guideline G-5's limit 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 will be visible from the Mount Tecumseh viewpoint.¹⁰¹ The Final Scenery Effects Analysis summarily concludes that following a guideline and standard from the Plan will reduce "the unit by fifteen acres and will further reduce the acreage by five percent of the unit."¹⁰² These assertions are conclusory and illogical.

The Service explains Wildlife Reserve Trees S-1 would reduce the area by 5 percent. The standard provides that "[w]hen harvest reduces the basal area of a stand below thirty square feet per acre, uncut patches totaling five percent of the harvested area must be retained, with each at least one quarter acre in size."¹⁰³ Applying this standard—something the Service is already obligated to do—will reduce the acreage by only five percent; it will yield considerably less than the 60 percent needed to bring unit 50 into compliance from all viewpoints.

The Service asserts that following Vegetation Management Guideline G-1 will reduce the unit by 15 acres. The guideline states "no more than 15 percent of the area of watersheds of first and second order streams should be treated with even-aged regeneration methods in a five year period." It is unclear how this standard would reduce acreage at all, let alone by the more than 15 acres—over 60 percent of viewable acres—like the Service asserted.

In its water quality analysis, the Service certified that less than 20 percent of *basal* area will be removed from all watersheds where logging will occur.¹⁰⁴ If less than 20 percent of the basal area of the watershed is targeted for harvest, applying Vegetation Management Guideline G-1 would likely yield minimal reduced acreage because the harvested area is less than 20 percent of the watershed to begin with, especially considering this Project largely targets mature and old forests.

Finally, the Service stated, "no reasonably foreseeable silvicultural proposals are identified within the analysis area."¹⁰⁵ This is false. The Service recently authorized commercial timber harvest for the Lake Tarleton IRP, which will have clearcuts and even-aged treatments visible from Mount Moosilauke.¹⁰⁶ The Service also failed to mention the Waterville Valley Resort

¹⁰¹ SCENERY EFFECTS ANALYSIS, *supra* note 92 at 7–9.

¹⁰² *Id.* at 6.

¹⁰³ 2005 PLAN, *supra* note 19, at 2-35

¹⁰⁴ *Id.*

¹⁰⁵ FINAL EA, *supra* note 3, at 33.

¹⁰⁶ U.S. FOREST SERV., TARLETON SCENERY MANAGEMENT SPECIALIST REVIEW AND SUMMARY 18 (Nov. 2023) (Exhibit 25).

Expansion for which it recently announced the initiation of an intent to prepare an EIS.¹⁰⁷ Both of these projects should be considered in determining whether the Project is consistent with Plan standards and guidelines in considering the cumulative impacts for scenery management.

The Project is grossly inconsistent with the relevant Plan standards and guidelines for scenery management. The Service failed to meet Forest-Wide Scenery Management Standard S-2 because it did not follow the relevant scenery management guidelines. Even if flexibility for those guidelines was permitted, its rationale for deviating from the guidelines did not fulfill the Service's requirement under the Service's own NFMA regulations.

Requested Remedy: The Service must eliminate visible clearcuts and even-aged treatments that exceed Plan Scenic Integrity Objectives all together or reduce application of such silvicultural treatments to bring the project into compliance with the relevant Scenic Integrity Objectives. The Service must document and explain how the project complies with all relevant Forest Plan Scenery Management Standards and Guidelines.

F. Scientific Knowledge and Ecosystem Viability

The 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.”¹⁰⁸ NFMA constrains the 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.”¹⁰⁹ As discussed in Standing Trees’ Scoping Comment,¹¹⁰ Draft EA Comment,¹¹¹ and in this objection at great length, the Project fails to use the latest scientific knowledge to restore the land, and the Service is repeatedly inconsistent in its conclusions about the costs and benefits of taking no action compared to selecting the Proposed Action.

The Project ignores relevant scientific knowledge of healthy forests, their importance to building climate resilience, and the location of the NLEB.¹¹² The proposed treatments are not appropriate methods to meet the objectives and requirements of the 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.¹¹³ The Project does not use the best available science, based on its failure to analyze and incorporate the conclusions of

¹⁰⁷ Notice of Intent to Prepare an Environmental Impact Statement for Waterville Valley Resort, 90 Fed. Reg. 20997 (May 16, 2025).

¹⁰⁸ 2005 PLAN, *supra* note 19, at 1–3.

¹⁰⁹ 16 U.S.C. §§ 1604(g)(3)(E)(i), (F)(v).

¹¹⁰ Scoping Comment, *supra* note 43 at 22–23 (Exhibit 14).

¹¹¹ Comment on Lost River IRP Draft EA, *supra* note 9, at 46–47 (Exhibit 15).

¹¹² *Supra* Section I.A; *infra* Section II.A; *infra* Section VI.A.

¹¹³ See 36 C.F.R. § 219.3 (“The responsible official shall use the best available scientific information to inform the planning process.”); 40 C.F.R. § 1500.1(b) (2022).

numerous recent studies on forest ecology, biodiversity, forest carbon, water quality, and more.¹¹⁴

Importantly, even where the Service concludes that taking no action would result in old-growth conditions, the Service arbitrarily misreads the implications of their conclusion, by dismissing, misinterpreting, or rejecting outright the many benefits and positive characteristics that are acknowledged in the Plan regarding old forest habitat and old growth forests.¹¹⁵

Requested Remedy: The Service must issue documentation and analysis that more thoroughly considers scientific knowledge and ecosystem viability of the Project, including how the project will protect and restore the land and forest.

G. Public Participation

In the Plan, the Service asserts that public participation “will be an important part of the process we use for making site-specific management decisions.”¹¹⁶ The Service is statutorily required to adhere to the Plan when engaging in projects in the Forest.¹¹⁷ There is little evidence that public participation provided meaningful direction to the Project as discussed in more detail in this objection.¹¹⁸ In addition, the Service failed to ensure the availability of public documents and host meaningful public discussions.¹¹⁹ The Project reflects an abdication of this commitment to public participation to contribute to project decisions outlined in the Plan.

Requested Remedy: To meet its obligation to sufficiently permit public participation throughout the Project’s planning process, the Service must provide the public with the supporting documentation it used to draft the Final EA and allow for an additional opportunity for public comment to respond to the documentation.

II. The Service’s Purpose and Need Statement for the Project is Unsupported by Transparent, Scientifically Rigorous Analysis

The Service’s Purpose and Need Statement for the Lost River IRP is unsupported by transparent, scientific analysis, thereby violating NEPA. The Purpose and Need Statement for a project

¹¹⁴ See *supra* Sections I.A, I.B, and I.C; *infra* Section II.A; *infra*, Sections VI.A, VI.B, VI.C and VI.F.

¹¹⁵ FINAL EA, *supra* note 3 at 17; 2005 PLAN, *supra* note 19, at 3–84. This unresolved conflict will be further discussed in Section III.B.

¹¹⁶ 2005 PLAN, *supra* note 19 at A–235.

¹¹⁷ 16 U.S.C. § 1604(i).

¹¹⁸ See e.g., Draft EA Comment Response Report, *supra* note 100, at 11 (providing no age-stand data despite comments vocalizing concerns over lack of information of which portions of the projects will impact old forest habitat); Draft EA Comment Response Report, *supra* note 100, at 4 (ignoring public comments regarding the lack of data for NLEB in the Lost River Project area specifically); Draft EA Comment Response Report, *supra* note 100, at 9–10 (stating that the Forest Service received comments on the lack of rationale given for maximum observed size for the Mount Tecumseh viewpoint) (Exhibit 24).

¹¹⁹ See e.g., Scoping Comment, *supra* note 43 at 21–24 (Exhibit 14) (failing to adequately prepare for pre-scoping meetings, provide detailed information on stand age, species composition, and compliance with CEQ and Forest Service regulations, current scientific data on forest health and the NLEB).

serves as the foundation for a project’s NEPA review, defining its scope and objectives.¹²⁰ A well-defined Purpose and Need Statement should analyze a range of alternatives to be considered by explaining why an action is needed at a specific location and time, highlighting the disparity between the current and desired conditions.¹²¹

The Purpose and Need Statement for this Project is deficient because it relies on outdated scientific information from the expired 20-year-old Plan without considering new scientific analysis, and critically fails to accurately report on current forest conditions, both within the Project area and across the entire Forest.¹²² As detailed in the comments on the Draft EA, Objectors identified several critical deficiencies that undermine the Project’s legal and scientific basis.¹²³ The Final EA fails to address these deficiencies.

The HMU Rationale Documents for the Project, which serve as the foundation for the stated purpose and need, lack critical data. The Service’s conclusion that there is a “need” for more regeneration-age-class forest is arbitrary and unsupported.¹²⁴ This statement is flawed because the Service has failed to account for how much of this age class exists today across the WMNF and the broader Plan analysis area.¹²⁵ By omitting this essential, up-to-date data, the Service lacks a rational basis for its stated need for action.

This reliance on an outdated Plan and failure to consider the most current scientific information leads to a legally flawed foundation for the entire Project. A project’s Purpose and Need Statement must accurately reflect the need for action, as it “has substantial influence on the scope of the [alternatives] analysis.”¹²⁶ By improperly defining the project’s scope, the Service prevents a genuine evaluation of reasonable alternatives, a core requirement under NEPA. As a result, the Statement is deficient, as it both ignores essential elements of the Plan and fails to adequately address the full range of alternatives.

A. *The Purpose and Need Statement Failed to Consider and Incorporate the Best and Most Current Scientific Understanding*

The Service’s reliance on the 2005 Plan is based on outdated and scientifically unsound information. Despite being presented with more current data, including at least six specific

¹²⁰ U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15 – NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK ch. 10.

¹²¹ *Id.*

¹²² 2005 PLAN, *supra* note 19, at i.

¹²³ Comment on Lost River IRP Draft EA, *supra* note 9 (Exhibit 15).

¹²⁴ FINAL EA, *supra* note 3, at 7.

¹²⁵ Comment on Lost River IRP Draft EA, *supra* note 9, at 11–12 (Exhibit 15); 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).

¹²⁶ U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15 – NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK ch. 10 at 8.

studies submitted by Standing Trees, the Service has refused to engage with modern scientific evidence on forest ecology.¹²⁷

This failure is compounded by misleading definitions and lack of transparency. The Service's definition of "Regeneration Forest Habitat" fails to account for the ecological differences between natural forest regrowth and the regeneration created by timber harvests.¹²⁸ The Service limited the definition of what counts as regeneration to *only* that created by clearcuts, patch cuts, and shelterwood cuts, ignoring other methods of regeneration such as group selection harvests and naturally occurring regeneration. This approach creates the false assumption that logging is the only way to achieve Project goals, closing the Service off from other management practices. It also results in an undercounting of project impacts, because regeneration created through uneven-age harvests is unreported at the project level and cumulatively across multiple projects. Furthermore, the public record lacks transparent data on existing regeneration and young forest habitat, both on public and private lands, which is crucial for evaluating the Project's necessity and for sufficient public participation.

Requested Remedy: The Service should revise the Purpose and Need Statement in light of new scientific information and prepare an EIS to incorporate the best and most current scientific understanding of Forest ecology and to provide transparent data on existing regeneration and young forest habitat.

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

The HMU documents that provide the basis for the Purpose and Need Statement lack relevant data and fail to demonstrate a pattern of transparent, straightforward analysis. As outlined above in Section I.A, the documents fail to include any information on the amount and location of "old forest" age class within the HMUs, which makes it impossible to determine whether the Project complies with the Forest Plan (requiring that "[n]o harvest will occur in stands identified to provide old forest habitat" and that "[t]imber harvest is prohibited in old growth forest").¹²⁹ This omission is material because it makes it impossible for the public to propose alternatives that

¹²⁷ DellaSala et al., *Measuring Forest Degradation via Ecological-integrity Indicators at Multiple Spatial Scales*, BIOLOGICAL CONSERVATION (Dec. 13, 2024) (Exhibit 2) (Exhibit 2 to Standing Trees Lost River IRP Comments); Markuljaková et al., *Rewilding Beech-dominated Temperate Forest Ecosystems: Effects on Carbon Stocks and Biodiversity Indicators*, iFOREST (Feb. 2, 2025). (Exhibit 3) (Exhibit 3 to Standing Trees Lost River IRP Comments); Brown et al., *Net Carbon Sequestration Implications of Intensified Timber Harvest in Northeastern U.S. Forests*, ECOSPHERE (Feb. 11, 2024). (Exhibit 4) (Exhibit 4 to Standing Trees Lost River IRP Comments); 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) (Exhibit 5 to Standing Trees Lost River IRP Comments); Jong et al., *Increases in Extreme Precipitation Over the Northeast United States Using High-resolution Climate Model Simulations*, NPJ CLIMATE AND ATMOSPHERIC SCIENCE (Mar. 22, 2023) (Exhibit 6) (Exhibit 6 to Standing Trees Lost River IRP Comments); Peng et al., *The Carbon Costs of Global Wood Harvests*, NATURE (Jul. 5, 2023). (Exhibit 7) (Exhibit 6 to Standing Trees Lost River IRP Comments).

¹²⁸ 2005 PLAN, *supra* note 19 at GLOSS-24.

¹²⁹ *Id.* at 2-13 (prohibiting harvest in old growth forest); *Id.* at GLOSS-21 (prohibiting harvest in stands that provide old forest habitat).

direct the Service to avoid specific mature or old age class stands that are closest to providing “old growth” or “old forest habitat,” which the Service acknowledges are unhealthfully rare across the WMNF.¹³⁰ Moreover, the Service has consistently refused to transparently identify the location of stands of *any* age class, further frustrating the public’s ability to review the Project, ensuring compliance with the Forest Plan, and propose alternatives.¹³¹

This failure is not an oversight. As documented in the Elbow Pond HMU Rationale, the Service deliberately excludes the “old forest” age class from its reporting of age class composition. Instead, the Service is *choosing* to withhold information that is crucial for public understanding and Project compliance.¹³² The Service reports “old” age class stands in the “mature” age class, crudely acknowledging so in a footnote that states the reported mature age class “[i]ncludes stands beyond the mature category.”¹³³ The Service refuses to name these as “old” age class stands as defined in the Plan’s Appendix D, or report the amount present in the Project area.¹³⁴

Age Class Composition

In addition to habitat composition in terms of natural community types, management objectives in the Forest Plan call for a variety of habitat conditions in terms of age class composition (Forest Plan, p. 1-21). Three age classes are recognized when determining objectives: regeneration (0 to 9 years old for all habitat types), young (10 to 59 years for northern hardwoods and mixedwood and 10 to 39 years for all other habitat types), and mature (60 to 119 years for northern hardwood and mixedwood, 40 to 89 years for spruce-fir, and 40 to 69 years for aspen-birch). The current age class composition for the Elbow Pond HMU is provided in Table 3.

Table 3. Existing MA 2.1 conditions by habitat type in the Peabody West HMU

Age class	HW ¹ Acres	HW %	MW ¹ Acres	MW %	SF ¹ Acres	SF %	AB ¹ Acres	AB %	OP ¹ Acres	OP %	H ¹ Acres	H %
Regeneration	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Young	428	8%	32	2%	57	9%	81	18%	0	0%	0	0%
Mature ²	5,055	92%	1,912	98%	582	91%	379	82%	0	0%	272	100%
Total	5,484		1,944		640		460		0		272	

¹ HW = hardwood; MW = mixedwood; SF = spruce-fir; AB = aspen-birch; OP = oak-pine; H = hemlock

² Includes stands aged beyond the mature category.

The mature age class is dominant among all habitat types. There is also a small amount of hardwood, mixedwood, softwood, and aspen-birch habitat in the young forest age class. The regeneration age class is currently not a component of the age class composition for any of the habitat types.

The decision to exclude “old” age class from its tables, and to withhold the ages and locations of stands within the HMUs, makes it impossible for the public to understand the existing conditions, which is a direct violation of the Service’s legal obligation to provide a transparent and reasoned basis for its decisions. The Service refuses to acknowledge the possibility of “old forest habitat” in Project stands, and this deceptive presentation seems calculated to avoid the risk that identifying those stands would derail or necessitate redefining the Project to ensure Plan compliance.

¹³⁰ *Id.* at 3-84.

¹³¹ Comment on Lost River IRP Draft EA, *supra* note 9 (Exhibit 15).

¹³² Comment on Lost River IRP Draft EA, *supra* note 9 (Exhibit 15).

¹³³ ELBOW POND HMU, *supra* note 31, at 5; FRANCONIA NOTCH HMU, *supra* note 31, at 5.

¹³⁴ 2005 PLAN, *supra* note 19 at D-2.

Moreover, both HMU rationale documents date prior to the scoping comment period and could not have accounted for any public comments, exemplifying the Service’s failure to engage in a transparent, collaborative, and iterative process.¹³⁵

The Service has made a pattern and practice of withholding this information. Standing Trees protested such omissions in its comments on the Tarleton, Peabody West, and Sandwich projects, and now this Project.¹³⁶ Moreover, Standing Trees has repeatedly sought this information from the Service, only to be variously told that it does not exist or that it would require a Freedom of Information Act (“FOIA”) request—a complete derogation of the Service’s obligations under NEPA and NFMA to transparently support its decision-making with publicly accessible information.¹³⁷

Requested Remedy: The Service should revise the Purpose and Need Statement and prepare an EIS that includes critical data regarding the Project’s impacts on old forest habitat and old growth forest.

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

The Project’s Purpose and Need Statement ignores the essential elements of the Plan, thereby violating NFMA. The Final EA does not demonstrate how the Project complies with the Plan’s explicit rules regarding old growth forest and old forest habitat. Standard S-3 of the Plan prohibits timber harvest in old growth, and Guideline G-1 states that “[o]utstanding natural communities should be conserved.”¹³⁸ The Plan also defines “old forest habitat” and explicitly states, “[n]o harvest will occur *in stands identified to provide old forest habitat*.”¹³⁹

The Service has omitted any information about how much of this age class exists today, despite the Plan’s explicit guidance. The public cannot verify information because the Project record lacks data on the location and amount of old forest age classes. Similarly, the Final EA provides no information about the age of specific “Silvicultural Units” and omits any data on stands in the Project area that meet the old forest age class definition outlined in the Plan’s glossary.¹⁴⁰

¹³⁵ ELBOW POND HMU, *supra* note 31, at 1; FRANCONIA NOTCH HMU, *supra* note 31, at 1.

¹³⁶ Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest 35 (Aug. 30, 2023) (Exhibit 17); Standing Trees, Comment on Peabody West IRP Draft EA (Sep. 6, 2022) (Exhibit 26); Standing Trees & Lake Tarleton Coalition, Comment on the Lake Tarleton Integrated Research Project (May 11, 2022) (Exhibit 27).

¹³⁷ See 40 C.F.R. § 1501.12 (2022) (“Agencies may not incorporate material by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment”). The Service expressly stated the environmental analysis for the Lost River IRP “was conducted according to the Council on Environmental Quality’s 2022 regulations for implementing the procedural provisions of [NEPA].” FINAL EA, *supra* note 3 at 5. All citations to CEQ’s NEPA Implementing Regulations (40 C.F.R. §§ 1500-1508) are to the 2022 CEQ NEPA Implementing Regulations, unless otherwise noted.

¹³⁸ 2005 PLAN, *supra* note 19 at 2–13.

¹³⁹ *Id.* at GLOSS–21 (emphasis added).

¹⁴⁰ FINAL EA, *supra* note 3 at 55.

Furthermore, the Final EA never analyzed how extensive even-aged management will degrade habitat quality within the Project area, directly conflicting with the Plan’s instructions to avoid such negative impacts. For example, the Plan’s definition of Mature and Forest Habitat explicitly states that “thinning uneven-aged harvest methods can be used in this habitat without negatively impacting habitat quality.”¹⁴¹ Therefore, the Purpose and Need Statement fails to establish the Project’s consistency with the Plan and violates NFMA.

Requested Remedy: The Service should issue an EIS with a revised Purpose and Need Statement that aligns with essential elements of the Plan and NFMA as outlined above.

D. The Purpose and Need Statement’s Reliance on Outdated Science Restricts Alternatives Considered

The Purpose and Need Statement’s reliance on outdated science improperly restricts the range of alternatives considered. The Statement is a project’s foundation, guiding the entire NEPA review and the development of reasonable alternatives. When this foundation is built on unreliable, outdated, and publicly unavailable science, the entire analysis is compromised. 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.”¹⁴² Similarly, the Forest Service Handbook states that the Statement should provide a “compelling reason for taking action and, therefore, should be consistent with the purpose and need for action.”¹⁴³

In this case, because the Statement relies on outdated scientific data and fails to accurately reflect current forest conditions, the alternatives developed are also based on outdated science. This prevents a genuine consideration of alternatives that are more appropriate and that adhere to current scientific information. Therefore, an outdated Statement improperly defines the project’s scope, which prevents a full range of reasonable alternatives from being considered, ultimately making the entire NEPA review legally non-compliant.

As the Objectors have previously stated,¹⁴⁴ the Service is obligated to explore other forest management strategies that align with current conditions, adapt to new information and comply with the Plan. In the context of Lost River—and other similar projects—the Service’s conclusory Statement fails to justify the proposed action with current scientific understanding.

¹⁴¹ 2005 PLAN, *supra* note 19 at GLOSS–18.

¹⁴² 42 U.S.C. § 4332(E); 40 C.F.R. § 1501.5(c)(2).

¹⁴³ U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15 – NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK ch. 40, at 3 (2010) (Exhibit 28).

¹⁴⁴ Comment on Lost River IRP Draft EA, *supra* note 9, at 13, 15–18 (Exhibit 15); Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest 44–45 (Aug. 30, 2023) (Exhibit 17); Standing Trees, Objection to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest 21 (June 12, 2023) (Exhibit 18); Standing Trees, Objection to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest 45 (May 1, 2023) (Exhibit 19).

This failure restricts the consideration of alternatives to only those that align with the outdated information, ignoring more scientifically sound options.

Requested Remedy: The Service should revise the Purpose and Need Statement based on up-to-date science and data and prepare an EIS that incorporates an adequate range of alternatives for the revised Purpose and Need Statement to ensure a full, transparent NEPA review.

III. The Final EA Fails to Consider a Full Range of Reasonable Alternatives to the Project, Including the “No Action” Alternative

The Final EA’s alternatives analysis is legally deficient because it fails to satisfy the core NEPA requirements for a reasoned and objective evaluation of alternatives, including a no action alternative.¹⁴⁵ The only time an alternatives analysis is not necessary is when “there are no unresolved conflicts concerning alternative uses of available resources”¹⁴⁶ – however, this Project presents multiple unresolved conflicts, as further discussed in subsection B. Despite at least ten viable alternative proposals recommended by the Objectors, the Service analyzed only a single narrow alternative related to road construction. The Service’s analysis is conclusory and arbitrarily and capriciously does not demonstrate a genuine consideration of the numerous alternatives proposed by the Objectors.¹⁴⁷

A. The Service Must Consider a True “No Action” Alternative

An evaluation of a “no action” alternative is an essential requirement of any NEPA analysis, yet the Final EA’s No Action discussion fails to satisfy this requirement.¹⁴⁸

In the Final EA, numerous benefits of no action were wholly ignored, including:

- Climate benefits from retaining older, mature trees;
- Habitat benefits for endangered and sensitive species;
- Avoidance of negative impacts to water quality from runoff and potential herbicide contamination;
- Protection of historic and cultural resources;
- Prevention of invasive species introduction; and
- Avoidance of visual and noise impacts.¹⁴⁹

¹⁴⁵ 42 U.S.C. § 4332(C)(iii).

¹⁴⁶ 36 C.F.R. § 220.7(b)(2)(i) (“[w]hen there are no unresolved conflicts concerning alternative uses of available resources”).

¹⁴⁷ The Project and the Forest Services’ analysis of alternatives differ in substantial respects from the projects analyzed in the recent decision in *Standing Trees v. United States Forest Service*, which the Objectors do not concede was correctly decided and is subject to appeal. For example, as explained in this section, Objectors’ concerns address the failure to study a ripe scenery alternative where desired conditions under the Forest Plan clashed, failure to study alternatives the Service has identified in other projects as being both feasible and beneficial, among others, which were not at issue in that case.

¹⁴⁸ 42 U.S.C. § 4332(C)(ii); 36 C.F.R. § 220.7(i); 40 C.F.R. § 1502.14(c).

¹⁴⁹ Comment on Lost River IRP Draft EA, *supra* note 9; Section II.B, page 16.

In addition, the no action alternative could lower the risk of wildfire. The Service acknowledges in its newly-provided Fuels Report and the Final EA that the Project area has no serious risk of wildfire. Based on recent scientific studies, it is likely the Proposed Action will increase fire risk compared to the No Action alternative. A 2023 paper in *Conservation Science and Practice* notes that “natural forests...tend to develop greater complexity, carbon storage, and tree diversity over time than forests that are actively managed,”¹⁵⁰ suggesting that extensive management interventions are often unnecessary for addressing wildfire. This aligns with the findings of Lorimer and White (2003), who linked intense fires in the region to recently logged areas.¹⁵¹ The Service’s 2024 threat assessment for National Forests further confirms this, showing that forests in the New England States have a “persistently low [] exposure to wildfire mortality.”¹⁵² These findings, supported by peer-reviewed research and the Service’s own materials, strongly suggests that a no action alternative that allows the Forest to maintain its natural resilience to wildfire should have been included in the analysis.

As to the negative consequences of no action, the Service’s analysis is also internally inconsistent. The Final EA states without support that no action would lead to a “homogenous structure.”¹⁵³ This assertion is directly contradicted by the Project’s own HMU Rationales, the Plan, and the Final EA itself. For example, the Final EA states that in absence of a substantial disturbance, stands would develop “old growth characteristics” over time, leading to a late successional forest community.¹⁵⁴ The Plan’s own definitions for “old forest habitat” and “old growth forest” emphasize greater age, structural complexity, and uneven-aged characteristics.¹⁵⁵ The Service cannot assert that no action will create a homogenous structure while simultaneously acknowledging that it will lead to the development of complex, diverse old growth stands. In sum, in violation of NEPA, the Service’s “No Action” alternative is incomplete, inconsistent, and contains conclusions that are unsupported by the Plan and established scientific literature.

Requested Remedy: The Service should prepare an EIS with a full analysis of a no action alternative to the Proposed Action that documents both beneficial and negative impacts from taking no action.

¹⁵⁰ Edward K. Faison et al., *The Importance of Natural Forest Stewardship in Adaptation Planning in the United States*, 5 CONSERVATION SCI. & PRAC. 1 (2023) (Exhibit 29) (Exhibit 11 to Standing Trees Lost River IRP Scoping Comments).

¹⁵¹ Craig G. Lorimer and Alan S. White, *Scale and Frequency of Natural Disturbances in the Northeastern US: Implications for Early Successional Forest Habitats and Regional Age Distributions*, 185 FOREST & ECOLOGY MGMT. 41 (2003), available at <http://www.maforests.org/Lorimer%20and%20White%20-%20ES%20Habitat.pdf> (Exhibit 30) (Exhibit 20 to Standing Trees Lost River IRP Scoping Comments).

¹⁵² U.S. FOREST SERV., MATURE AND OLD-GROWTH FORESTS: ANALYSIS OF THREATS ON LANDS MANAGED BY THE FOREST SERVICE AND BUREAU OF LAND MANAGEMENT 19 (2023),

https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/MOG-threat-analysis.pdf (Exhibit 31).

¹⁵³ FINAL EA, *supra* note 3 at 17

¹⁵⁴ *Id.*

¹⁵⁵ 2005 PLAN, *supra* note 19, GLOSS-21.

B. The Final EA Fails to Analyze Appropriate Alternatives

The Final EA fails to study and describe other appropriate alternatives, despite the existence of unresolved conflicts regarding the use of available resources. The Service only provided a one-paragraph description of one alternative related to road reconstruction and failed to include any analysis on why this alternative was not chosen.¹⁵⁶ In addition, the Service only provided surface level justifications for failing to consider numerous alternatives proposed by the Objectors.

The alternatives that were proposed by the Objectors are not just related to forest health; they also address scenery impacts. The Proposed Action poses an unresolved conflict between the Project's regeneration goals, which the Service claims can be achieved through clearcutting large swaths of mature forest, and the Plan's scenic guidelines, which limit clearcuts on visible acres.¹⁵⁷ The Service's failure to consider an alternative that prioritized the scenic objectives over cutting highlights the inadequacy of its analysis and its refusal to address a conflict explicitly identified in the Plan. Many of the proposed clearcuts and even-aged treatments will violate Plan scenic standards, particularly Forest-Wide Scenery Management Standard S-2.¹⁵⁸ The Final EA acknowledges that several clear-cuts will exceed the limits on visible acreage set by scenic guidelines G-3 and G-5.¹⁵⁹ Despite this, the Service excuses these issues to "better meet project-level objectives."¹⁶⁰ The Service did not explain why one objective must take precedence over another. Here, unresolved conflicts exist because Scenery Management Goals and Vegetation Management Goals are in conflict—apparently, one can only be achieved at the expense of the other. Therefore, the Service is obligated to conduct a full alternatives analysis under NEPA.¹⁶¹

Another unresolved conflict concerns water quality. The best available science warns that the Service's proposed even-aged management will increase dissolved organic material in water by up to four times, decreasing water quality and dramatically increasing Project carbon emissions.¹⁶² This directly conflicts with both the Plan and the permitting requirements of the Clean Water Act ("CWA").¹⁶³ Here, the threat of detrimental impacts to water quality from Project activities constitutes an unresolved conflict under NEPA. This warrants consideration of alternatives more protective to water quality.

As noted in the Objectors' Supplemental Comment dated August 1, 2025, the Service's own logic in refusing to review more limited harvesting is internally inconsistent, contradicting its recent analysis in the case of the Webster Cliff Trail Relocation.¹⁶⁴ In that project, the Service

¹⁵⁶ FINAL EA, *supra* note 3 at 17–18

¹⁵⁷ See Section I.E.

¹⁵⁸ FINAL EA, *supra* note 3 at 32.

¹⁵⁹ *Id.*

¹⁶⁰ FINAL EA, *supra* note 3 at 32–33.

¹⁶¹ See 42 U.S.C. § 4332(H) (Agencies shall "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources"); 36 C.F.R. 220.7(i).

¹⁶² Freeman et al., *supra* note 83 (Exhibit 23).

¹⁶³ See *supra*, Section I.C, Water Resources; see also Scoping Comment, *supra* note 43 at 26.

¹⁶⁴ Wilderness Watch & Standing Trees, Comment on Webster Cliff Trail Relocation Scoping Letter 2 (Apr. 2, 2025). (Exhibit 32).

determined that prohibiting harvesting of trees greater than three inches in diameter at breast height (“DBH”) would result in a “No Effect” finding for the NLEB.¹⁶⁵ However, for the Lost River IRP, a much larger project with over one thousand acres proposed for harvest, and immediately adjacent to an NLEB hibernaculum, the Service has made contradictory conclusions about what constitutes a reasonable safeguard¹⁶⁶. Here again, unresolved conflicts exist because vegetation management goals conflict with objectives for threatened and endangered species (“TES”). At minimum the Service must correct its errors by fully considering and evaluating an alternative that excludes the logging of trees three inches at DBH.

Alternatives that should have been analyzed include, but are not limited to:

- Avoiding all mature and old age class stands or at least stands that meet the old forest age class.
- Avoiding all impacts to Inventoried Roadless Areas (“IRAs”), including Plan IRAs.
- Increasing buffers around waterbodies and wetlands.
- Maintaining primitive, dispersed recreation opportunities.
- Augmenting beaver populations for habitat creation.
- Replacing undersized culverts to increase flood resilience.
- Restricting logging to NLEB hibernation periods.
- Precluding logging within the average NLEB migration distance from hibernacula.
- Avoid logging of any trees greater than three inches at DBH.
- Requiring surveys for endangered species before each harvest.

The Service purports to have considered several alternatives but failed to analyze them in detail. Specifically, the Final EA mentioned increasing buffer zones for waterways, replacing undersized culverts to prevent flooding, and maintain primitive recreation areas, but did not provide a robust analysis of any of these alternatives despite their clear relevance to the Project’s impacts.¹⁶⁷ A more detailed investigation of these alternatives is crucial for a legally compliant and thorough environmental review.

Requested Remedy: The Service should prepare an EIS with a full analysis of reasonable alternatives to the Project, including those submitted by the Objectors.

IV. The Service’s Inconsistent Application of CEQ NEPA Regulations Throughout its Analysis is Arbitrary and Capricious

The Service acted arbitrarily and capriciously when it conducted its scoping and environmental analysis to inform its EA under the 2022 CEQ NEPA implementing regulations but then issued the FONSI pursuant to the 2020 CEQ NEPA implementing regulations. Under the Administrative Procedures Act (APA) a “reviewing court shall … hold unlawful and set aside”

¹⁶⁵ *Id.*

¹⁶⁶ FINAL EA, *supra* note 3 at 40.

¹⁶⁷ FINAL EA, *supra* note 3 at 18.

federal agency action found to be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”¹⁶⁸ The Service must make a “rational connection between the facts found and the choice made.”¹⁶⁹ An agency action is “arbitrary and capricious” under the APA where “the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.”¹⁷⁰ Under the APA and NEPA, agency action must be “reasonable and reasonably explained.”¹⁷¹

Here, the Service told the public the Project was analyzed under the 2022 regulations but then issued the FONSI under the 2020 regulations. This decision was not reasonable or reasonably explained: the Service glossed over the fact it applied a different regulatory scheme for its environmental analysis and FONSI.¹⁷² Such an unreasoned decision is the height of arbitrariness—it is virtually unacknowledged and entirely unexplained.¹⁷³ This change also interfered with NEPA’s public participation requirements because it inhibited the public from contributing meaningfully because it was unclear what set of binding regulations the agency was following, and creates general confusion about what regulations apply to the project.

Requested Remedy: The Service should withdraw the EA and conduct an EIS under the 2022 CEQ regulations to ensure consistency for meaningful public involvement and legality of the Project.

V. The Service Has Violated NEPA’s Core Requirement by Continuing to Sidestep Meaningful Public Involvement

The Service must make diligent efforts to involve the public in preparing and implementing their NEPA procedures.¹⁷⁴ It must provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement. Likewise, it must make available the environmental documents it used for transparency, and to inform those interested or affected persons and agencies.¹⁷⁵ Further, it must hold or sponsor public hearings, meetings, or other

¹⁶⁸ 5 U.S.C. § 706(2).

¹⁶⁹ *Baltimore Gas and Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 105 (1983).

¹⁷⁰ *Motor Vehicle Manufacturers. Ass’n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)

¹⁷¹ *Seven Cnty. Infrastructure Coalition v. Eagle County*, 145 S. Ct. 1497, 1511 (2025).

¹⁷² Compare FINAL EA, *supra* note 3 at 5 (explaining that “this environmental analysis was conducted according to the Council on Environmental Quality’s 2022 regulations . . .”) with FINAL EA, *supra* note 3 at 36 (explaining that “the responsible official made the following 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 . . .”).

¹⁷³ See *Dillmon v. Nat'l Transp. Safety Bd.*, 588 F.3d 1085, 1089-90 (D.C. Cir. 2009) (citing *F.C.C. v. Fox Television Stations, Inc.*, 566 U.S. 502, 515 (2009)) (“Reasoned decision making, therefore, necessarily requires the agency to acknowledge and provide an adequate explanation...”)

¹⁷⁴ 40 C.F.R. § 1506.6(a) (2022).

¹⁷⁵ 40 C.F.R. § 1506.6(b) (2022).

opportunities for public involvement whenever appropriate.¹⁷⁶ An EA must “provide sufficient evidence and analysis . . . to determine whether to prepare either an EIS or a FONSI.”¹⁷⁷

Within the context of the Lost River IRP, the Service has largely repeated the same mistakes of short-circuiting public involvement as it has in previous projects.¹⁷⁸ As in the recent past, the 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 Plan and other statutes and regulations, (3) meaningfully respond to requests for information or current scientific evidence offered by the Objectors and others.¹⁷⁹

In direct contravention of NEPA, the Service has repeatedly failed to “provide public notice of . . . the availability of environmental documents,”¹⁸⁰ which are intended to inform the public’s ability to meaningfully comment, propose alternatives, and object, if necessary, to Service integrated resource and vegetation management projects. In two glaring examples, the Lost River IRP Carbon and Climate Change Report and the Transportation Analysis, the Service failed to provide the documents to the public until after the public comment period closed. Withholding these documents inhibited the public’s ability to contribute meaningfully.

In addition, Standing Trees previously requested the Service’s Transportation Analysis in a different Forest Service project proposal. Standing Trees was told the document and related materials did not exist.¹⁸¹ However, in Lost River IRP, despite implementing “many of the recommendations made in the 2015 forest-wide transportation analysis,”¹⁸² the Service only offered the 2015 document for public review at the time of the release of the Final EA. As we have noted elsewhere¹⁸³, it is inappropriate and misleading for the Service to refer to this document as an “analysis,” because such terminology implies a review under NEPA. Instead, the 2015 report did not receive NEPA analysis and was unsigned. The Service has not conducted sufficient site-specific analysis related to transportation, and it has not offered the public sufficient opportunity to compare the 2015 transportation report with the Project’s EA. With an

¹⁷⁶ 40 C.F.R. § 1506.6(c) (2022).

¹⁷⁷ 40 C.F.R. § 1501.5(c)(1) (2022).

¹⁷⁸ Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest 57–59 (Aug. 30, 2023) (Exhibit 17); Standing Trees, Objection to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest 48–50 (June 12, 2023) (Exhibit 18); Standing Trees, Objection to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest 9–13 (May 1, 2023) (Exhibit 19).

¹⁷⁹ See e.g., Scoping Comment, *supra* note 43 at 21–24 (Exhibit 14) (failing to adequately prepare for pre-scoping meetings, provide detailed information on stand age, species composition, and compliance with CEQ and Forest Service regulations, current scientific data on forest health and the NLEB).

¹⁸⁰ 40 C.F.R. § 1506.6(b) (2022).

¹⁸¹ Standing Trees & Sierra Club New Hampshire, Supplemental Comment on Draft Environmental Assessment and Preliminary Finding of No Significant impact for Lost River Integrated Resource Project (Aug. 1, 2025) (Exhibit 33); E-mail from Johnida S. Dockens, NEPA Coordinator, U.S. Forest Serv. to Zack Porter, Exec. Dir., Standing Trees (June 28, 2022, 5:02pm) (Exhibit 34).

¹⁸² FINAL EA, *supra* note 3 at 38.

¹⁸³ *Infra* Section VI.E.

EIS, the Service could remedy these issues and expand public participation to meet its duty under NEPA.

Requested Remedy: The Service should withdraw the FONSI and complete an EIS to ensure it meets its full statutory obligation of meaningful public involvement on this Project.

VI. The Final EA Violates NEPA Because It Fails to Take the Requisite “Hard Look” at the Environmental Impacts of the Project

NEPA requires the Service to take a “hard look” at the environmental impacts of the Lost River IRP.¹⁸⁴ This requirement “places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action.”¹⁸⁵ The purpose of this process is to ensure that the final decisions concerning a project are “fully informed and well-considered.”¹⁸⁶ The discussion below identifies the pervasive failures of the Service to adequately consider the significant impacts that are likely to occur from the Lost River IRP. The Service failed to analyze these impacts and provide sufficient information on planned mitigation measures.¹⁸⁷

Despite the recent decision in *Standing Trees v. United States Forest Service* concerning the Tarleton and Peabody projects,¹⁸⁸ which has not been memorialized in a final judgment and is subject to appeal, we continue to believe and assert the Tarleton and Peabody NEPA analyses did not take a sufficiently “hard look” at environmental impacts. For the Lost River IRP, the Service violated NEPA’s “hard look” requirement for reasons both distinct from and in addition to those for Peabody and Tarleton. Specifically, the Final EA used different analysis methodology which fails to conduct or consider site-specific analysis of the Project impacts, to sufficiently validate the data used for its analysis, and to evaluate the impacts at the forest unit scale. Additionally, the impacts of the Lost River IRP have the potential to be materially different from that of the Tarleton and Peabody projects and require a site-specific “hard look” to properly evaluate the reach and severity of those impacts. For example, the Service determined activities proposed for the Lost River IRP are likely to adversely affect the NLEB; the Service found the project poses the potential for significant impacts to scenery, and the Service’s mitigation measures will not yield a no-significance finding, and; the Project poses significant cumulative impacts across a range of resources including forest health, carbon and climate, roadless area values and characteristics, and scenery. Given these differences, the Lost River IRP is distinct from the Peabody and Tarleton projects, and the recent court decision does not validate the Service’s approach here.

¹⁸⁴ *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).

¹⁸⁵ *Mass. v. U.S. Nuclear Regul. Comm'n*, 708 F.3d 63, 67 (1st Cir. 2013).

¹⁸⁶ *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council*, 435 U.S. 519, 558 (1978).

¹⁸⁷ *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.”)

¹⁸⁸ *Standing Trees, Inc. v. United States Service, et al.*, Case 1:24-cv-00138-JL-TSM (D.N.H 2025).

A. Vegetation and Forest Health

As established throughout this objection, and in other submissions made by the Objectors,¹⁸⁹ the likely effects of the Lost River IRP on forest health will be significant, and the Forest Service should have fully analyzed the impacts of the project in an EIS. The Lost River IRP proposes using even aged management to cut 237 acres, including 206 acres of clearcuts.¹⁹⁰ The Final 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 discussed above in Sections I.A and II.A and B, the Service has not provided up-to-date information regarding stand boundaries and ages making it impossible for the public to discern or verify how much of the Project area is in either the mature or old forest age classes. Making matters worse, the Service deliberately and arbitrarily lumps mature and old age-class stands together in its HMU analyses.¹⁹¹ The supporting documents provided by the Service lack any supporting information showing evidence of designations of old growth forest or old forest habitat in the designated HMUs, nor is there any evidence that the Service searched for such areas. Nevertheless, the Final EA claims without substantiation that “[n]o treatments are proposed in old forest or old growth habitats; proposed treatments would occur in mature stands (refer to definitions for age classes in the HMU rationale document, p. 5).”¹⁹² Yet, the HMUs provide no analysis of old growth habitat presence in the designated areas.

As noted elsewhere, Table 3 in both HMU documents indicate that the Service is arbitrarily counting the “old forest” age class within the “mature” age class for purposes of reporting the current composition.¹⁹³ However, in footnote 2 for Table 5 in both HMU documents, the Service explicitly acknowledges the existence of the old forest age class when discussing age class objectives.¹⁹⁴ Both HMUs have acknowledged the existence of old age forest stating that 93 percent (Elbow Pond) and 96 percent (Franconia Notch) of the land “are in the mature and old age classes.”¹⁹⁵ If the Service is going to reference the old forest age class for its aspirational goals, it must also reference the old forest age class when describing current conditions, so that the Service and the public can measure progress against a baseline.

The Service cannot generalize the habitat conditions and the impacts of their proposed actions across all mature stands, much less all mature *and* old stands as it does in the EA. The unique impacts of the Service’s proposed action must be disclosed, including the ages

¹⁸⁹ See Section I.A; Comment on Lost River IRP Draft EA, *supra* note 9 at 19–20; Scoping Comment, *supra* note 43 at 14; Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, at 49–50.

¹⁹⁰ FINAL EA, *supra* note 3 at 9.

¹⁹¹ See ELBOW POND HMU, *supra* note 31, at 5; FRANCONIA NOTCH HMU, *supra* note 31, at 5.

¹⁹² FINAL EA, *supra* note 3 at 8.

¹⁹³ See ELBOW POND HMU, *supra* note 31, at 5; FRANCONIA NOTCH HMU, *supra* note 31, at 5.

¹⁹⁴ ELBOW POND HMU, *supra* note 31, at 7; FRANCONIA NOTCH HMU, *supra* note 31, at 7.

¹⁹⁵ ELBOW POND HMU, *supra* note 31, at 8; FRANCONIA NOTCH HMU, *supra* note 31, at 8.

and characteristics of stands in the Project area and their geographic locations, to inform decision making and to ensure transparency for the public. In the Lost River IRP, as in other recent projects, the public has not sufficiently been informed of the impacts and losses that will occur because the Service has not performed this basic analysis.

Finally, along with neglecting to provide the information required by the Plan discussed in Section III.A of this objection, the Service also fails to discuss the other benefits a no-action alternative would provide.¹⁹⁶

To rectify this, and to comply with the Plan standards and guidelines, the Service should provide an EIS containing comprehensive information and maps regarding the stand ages and boundaries in the Project area. As is, the Final EA does not take its required “hard look” at the significant impacts the Lost River IRP could have on vegetation and forest health or the potential outcomes of a no-action alternative.¹⁹⁷ By omitting this essential information, the Service also frustrates the public’s ability to propose informed alternatives to the Proposed Action.

Requested Remedy: The Service must take the requisite “hard look” at the Lost River IRP’s impacts on forest health including site-specific analysis and separate analyses of mature and old forest habitat in the Project area. The Service must do so to ensure management will not harm or undermine forest health objectives, and to justify its proposed silvicultural activities.

B. Carbon and Climate Impacts

Under NEPA, the Service must discuss the impacts of the proposed Project on the climate. As the Objectors have mentioned in past comments, this discussion must include both carbon emissions generated by the Project activities *and* impacts of the proposed silvicultural treatments on carbon sequestration and storage.¹⁹⁸ Regardless of the current administration’s stance on climate action, the Project documents, including the Service’s response to scoping comments, committed to analyzing the Project’s impacts on climate change.¹⁹⁹ While the Objectors appreciate the Service adding a short analysis of the climate impacts to the Final EA of the Lost River IRP, the analysis still falls short of the requisite “hard look.”

As stated in the Final EA and as discussed in Section IV, the Service (at least at times) purported to follow CEQ regulations published in 2022.²⁰⁰ Under the 2022 CEQ regulations, the Service published a white paper on its practices for conducting carbon analysis for an EA under NEPA.²⁰¹ In the white paper, the Service recommends conducting carbon assessments

¹⁹⁶ FINAL EA, *supra* note 3 at 17.

¹⁹⁷ *Supra* Section III.A.

¹⁹⁸ See Comment on Lost River IRP Draft EA, *supra* note 9, at 20–23 (Exhibit 15).

¹⁹⁹ See e.g., Scoping Comment, *supra* note 43 at 12.

²⁰⁰ FINAL EA, *supra* note 3 at 5.

²⁰¹ U.S. FOREST SERV., FOREST CARBON ASSESSMENT FOR THE WHITE MOUNTAIN NATIONAL FOREST IN THE FOREST SERVICE’S EASTERN REGION (Jan. 2024).

at the forest unit scale to ensure consistency and efficiency while preventing bias.²⁰² However, the Final EA only addresses the Project’s contributions to greenhouse gas emissions “relative to national and global emissions.”²⁰³

Additionally, according to the 2022 CEQ regulations, agency decisions should be based on the best available science and should embody professional and scientific integrity.²⁰⁴ The regulations also require the Service to address all effects or impacts that are reasonably foreseeable and reasonably related to the proposed action or alternatives.²⁰⁵ Section 1508.1(g)(4) defines “effects” as:

Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic (such as the effects on employment), social, or health effects. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.²⁰⁶

Under this regulation, the Service is required to address the contributions of the Project to carbon emissions and climate change. As the Objectors explained in a previous comment,²⁰⁷ this obligation is especially important here, where recently approved timber harvests across the WMNF have major climate change implications.

The Forest Service helpfully provided two new documents for consideration when publishing the Final EA – a *Lost River IRP Carbon and Climate Change Report*²⁰⁸ and a *Forest Carbon Assessment for the White Mountain National Forest in the Forest Service’s Eastern Region*.²⁰⁹ Confoundingly, both documents seem to have been prepared prior to the publication of the Draft EA, and yet they were not included as documentation at any previous opportunity for public comment, nor were they mentioned or considered in the Draft EA.²¹⁰ Their use in the Final EA is cursory at best, and as explained below, the analysis in the Final EA contradicts and mischaracterizes findings in the *Forest Carbon Assessment for the White Mountain National Forest* and does not consider additional scientific information previously provided by Objectors.

²⁰² *Id.* at 4.

²⁰³ FINAL EA, *supra* note 3 at 30.

²⁰⁴ 40 CFR §§ 1500.3, 1502.23.

²⁰⁵ 40 CFR § 1508.1(g).

²⁰⁶ 40 CFR § 1508.1(g)(1).

²⁰⁷ Scoping Comment, *supra* note 43 at 15-16.

²⁰⁸ U.S. FOREST SERV. LOST RIVER INTEGRATED RESOURCE PROJECT CARBON AND CLIMATE CHANGE REPORT (Jan. 2025).

²⁰⁹ U.S. FOREST SERV., FOREST CARBON ASSESSMENT FOR THE WHITE MOUNTAIN NATIONAL FOREST IN THE FOREST SERVICE’S EASTERN REGION (Jan. 2024).

²¹⁰ The Lost River IRP Carbon and Climate Change Report was prepared on January 16, 2025; the Forest Carbon Assessment for the White Mountain National Forest was prepared in January 2024.

Forests in temperate zones, such as in the eastern United States, 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,²¹¹ which is only about 25–35% of the lifespan of many of the common tree species in these forests.²¹² Several global studies have highlighted the unique potential of our temperate deciduous forests to contribute on the global stage to climate stabilization and resilience.²¹³

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. In the Final EA, the Service recognizes the importance of the forest for carbon storage, stating the aboveground vegetation accounts for over a third of all carbon storage in the WMNF.²¹⁴ 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.²¹⁵ Thus, preserving mature and old forests is of vital importance for mitigating climate change and expanding carbon storage capacity. The Service must analyze and avoid any threats to the survival of mature and old forests that might result from projects such as the Lost River IRP.

Old forests store more carbon than young forests, and old forests continue to accumulate carbon over time.²¹⁶ The rate of carbon sequestration actually increases as trees age,²¹⁷ and

²¹¹ William R. Moomaw et al., *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, FRONTIERS FOREST & GLOB. CHANGE, 1,4 (June 2019) (Exhibit 35) (Exhibit 26 to Standing Trees Scoping Comment).

²¹² *Id.* at 4–5.

²¹³ Eric Dinerstein et al., *A “Global Safety Net” to Reverse Biodiversity Loss and Stabilize Earth’s Climate*, SCI. ADVANCES, 1 (Sept. 2020) (Exhibit 36) (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 37) (Exhibit 28 to Standing Trees Scoping Comment).

²¹⁴ FINAL EA, *supra* note 3 at 30.

²¹⁵ Keeton et al., *Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States*, 57 FOREST SCI. (Jan. 18, 2011) (Exhibit 38) (Exhibit 9 to Standing Trees Scoping Comment).

²¹⁶ 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 39) (Exhibit 2 to Standing Trees Scoping Comment); Luyssaert et al., *Old-growth Forests as Global Carbon Sinks*, 455 NATURE 213 (2008) (Exhibit 40) (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 41) (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*, WILEY (2019) (Exhibit 42) (Exhibit 5 to Standing Trees Scoping Comment).

²¹⁷ Stephenson et al., *Rate of Tree Carbon Accumulation Increases Continuously with Tree Size*, 507 NATURE 90 (Jan. 2014) (Exhibit 43) (Exhibit 10 to Standing Trees Scoping Comment).

this process is multiplied as entire stands age.²¹⁸ As Standing Trees has pointed out previously,²¹⁹ recent studies show that among land uses in New England, timber harvest has the greatest impact on aboveground carbon storage.²²⁰ Timber harvesting in New England has been found to have a larger effect on aboveground carbon storage than forest conversion to non-forest uses.²²¹ In fact, the 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.²²²

Additionally, the Lost River IRP Carbon and Climate Report uses restoration of farm land to forest land as an example how restoration practices can bolster an area’s carbon sequestration.²²³ However, this comparison is concerning because here, the Service is proposing the harm requiring restoration. The Service must take the most up-to-date science on carbon storage, including the scientific references provided here and in Standing Trees’ prior submissions, into account when analyzing this Project’s climate impacts.²²⁴ The Final EA blatantly fails to do so.

The Final EA also fails to provide support for the conclusion that carbon stored in soil, accounting for 38 percent of carbon stored in WMNF, and other carbon pools will not be affected by the Project.²²⁵ In fact, the Forest Carbon Assessment for the WMNF states that there “are not current analyses of disturbance impacts on soil carbon stocks specific to the White Mountain NF, recent [regional] studies . . . show varying soil carbon responses to harvest.”²²⁶ The Assessment goes on to emphasize the importance of local analysis stating, “ecoregional analyses provide . . . broader inferences than individual site-level studies.”²²⁷ Without conducting a site-specific soil carbon analysis, the Service is relying on broad analysis that may not account for the forest conditions in the Project areas. The Service has also recognized that even if older

²¹⁸ Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, FOREST ECOLOGY & MGMT. 544 (May 2023) (Exhibit 29) (Exhibit 11 to Standing Trees Scoping Comment).

²¹⁹ Scoping Comment, *supra* note 43 at 15-16; Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest 60 (Aug. 30, 2023) (Exhibit 17); Standing Trees, Objection to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest 21 (June 12, 2023) (Exhibit 18); Standing Trees, Objection to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest 26 (May 1, 2023) (Exhibit 19).

²²⁰ Duveneck & Thompson, *Social and Biophysical Determinants of Future Forest Conditions in New England: Effects of a Modern Land-use Regime* 55 GLOBAL ENV’T CHANGE 115 (March 2019) (Exhibit 44) (Exhibit 12 to Standing Trees Scoping Comment).

²²¹ *Id.*

²²² 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).

²²³ U.S. FOREST SERV. LOST RIVER INTEGRATED RESOURCE PROJECT CARBON AND CLIMATE CHANGE REPORT 11 (Jan. 2025).

²²⁴ 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. *See generally*, U.S. FOREST SERV., TELEPHONE GAP INTEGRATED RESOURCE PROJECT FINAL ENVIRONMENTAL ASSESSMENT 63–74 (July 2024).

²²⁵ FINAL EA, *supra* note 3 at 30.

²²⁶ U.S. FOREST SERV., FOREST CARBON ASSESSMENT FOR THE WHITE MOUNTAIN NATIONAL FOREST IN THE FOREST SERVICE’S EASTERN REGION 19 (Jan. 2024).

²²⁷ *Id.*

trees were to have a declining rate of carbon accumulation, ecosystem carbon stocks would likely increase due to soil carbon and dead organic matter accumulation.²²⁸ Without a detailed, site-specific soil carbon analysis, the Service and the public cannot truly know the impacts the Project will have on soil carbon stores.

On the issue of climate resilience, the Service failed to acknowledge or consider the science that the Objectors have provided in its scoping comments and on multiple other occasions. Federal courts have set aside NEPA analyses when an agency fails to respond to scientific analysis that calls into question the agency's assumptions or conclusions.²²⁹ As the U.S. Supreme Court recently reiterated, when an agency is conducting a NEPA analysis, the agency must "make a series of fact-dependent, context-specific, and policy-laden choices about the depth and breadth of its inquiry."²³⁰ Confoundingly, the Final EA retains a smattering of loose claims that the Project has the potential to strengthen climate resiliency without supporting those assertions or providing assurances that these outcomes are likely.²³¹ The Final EA also fails to sufficiently explain any of the many risks to climate resilience from the Project's timber harvests or how no action would support climate resilience.²³² This does not constitute a hard look.

Requested Remedy: To comply with NEPA, the Service should abandon the legally flawed approach of the Final EA and address the Project's carbon and climate impacts in an EIS. The EIS should address the climate impacts at the local forest unit level as well as national impacts. The Service should also conduct a site-specific analysis of the potential impacts of project activity, specifically timber harvest, on soil carbon stores.

C. Impacts to Sensitive Species Including the NLEB

As discussed in Section III subsection B, four federally listed or proposed species and twelve Regional Forester Sensitive Species were determined to potentially occur in the project area. One endangered species likely to occur in the Project area is the NLEB. As discussed in Section III, the analysis conducted by the Service failed to fully consider the risks the Project activities will pose to TES species in the area, including NLEB and TCB.

In addition, the Service should have extensively considered the impacts to all TES species that may exist within the Project area. For example, the Canada lynx is federally listed as

²²⁸ U.S. FOREST SERV. LOST RIVER INTEGRATED RESOURCE PROJECT CARBON AND CLIMATE CHANGE REPORT 7 (Jan. 2025).

²²⁹ 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.").

²³⁰ *Seven County Infrastructure Coalition v. Eagle County*, 145 S. Ct. 1497, 1506, 1511 (2025) (stating that an agency action must still be "reasonable and reasonably explained").

²³¹ FINAL EA, *supra* note 3 at 6, 7, 30, 31.

²³² *Id.* at 30, 31.

threatened,²³³ and it is listed as endangered by the state of New Hampshire.²³⁴ The Canada lynx's habitat consists of boreal forests and include some higher-elevation areas within the WMNF.²³⁵ 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 predominant land uses affecting lynx habitat.”²³⁶ 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.”²³⁷

Additionally, the Biological Evaluation conducted for the project summarily concludes that the Project may but is unlikely to affect the threatened small whorled pogonia;²³⁸ along with the extensive possibilities of adverse impacts to the above-mentioned species. However, the Botanical Field Surveys are not available to the public and the Biological Evaluation simply concludes threatened species are not present in the Project area.²³⁹ The 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 Service failed to provide Biological Assessments (“BA”) for the Canada lynx, and small whorled pogonia as part of the documentation for this Project. The Plan requires a project- and species-specific BA 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 USFWS] is necessary.”²⁴⁰ 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)²⁴¹ supporting the Service’s assertion that federally listed and sensitive species will not be impacted by the Project, but it fails to sufficiently address conservation methods and

²³³ USFWS, *Canada Lynx (Lynx canadensis)*, Environmental Conservation Online System (ECOS) (last updated Aug. 4, 2022), <https://ecos.fws.gov/ecp/species/3652> [hereinafter ECOS].

²³⁴ Comment on Lost River IRP Draft EA *supra* note 9, at 25 (citing 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 Sep. 12, 2025)).

²³⁵ ECOS, *supra* note 233.

²³⁶ *Id.*

²³⁷ Abigail 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) (Exhibit 11 to Standing Trees Draft EA Comment).

²³⁸ FINAL EA, *supra* note 3 at 23.

²³⁹ BIOLOGICAL EVALUATION, *supra* note 38 at 7–8.

²⁴⁰ 2005 PLAN, *supra* note 19, at 2-13.

²⁴¹ See, e.g., SPECIES STATUS ASSESSMENT, *supra* note 44 at 18–19 (Exhibit 13) (Exhibit 1 to Standing Trees Sandwich Comment) (describing NLEB preferred habitat, including foraging habitat).

recovery strategies for actually protecting these species. Through additional project-specific consultation with USFWS and the completion of an EIS, the 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.

The Final EA failed to conduct adequate analysis of the impacts of the project to TES species and identify any site-specific mitigation incorporated in the Project plan.²⁴² Without fully analyzing the impacts the project and potential alternatives could have on TES species, the Service falls short of its obligation to conduct a hard look at the impacts.

Requested Remedy: The Service should conduct an EIS for the impacts to all TES species listed in the Project area to meet the standards of “hard look” review and to properly inform the public of the Project’s impacts to the species.

D. Roadless Area Values and Characteristics

The Final 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. The Service acknowledges that approximately 91% of all silvicultural treatments will occur in Forest Plan Inventoried Roadless Areas.²⁴³ While the Final EA includes a new statement, stating that the X178-2 project would not affect the Mt. Wolf-Gordon Pond Roadless Area Conservation Rule (“RACR”) IRA, the Final EA ignores the concerns raised by Standing Trees regarding the degradation of the Jobildunk and Carr Mountain RACR and Forest Plan Inventoried Roadless Areas IRAs.

The Final EA continues to rely on making distinctions between RACR IRAs (i.e., those inventoried in 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 Service after RACR’s promulgation and therefore afforded such protections only at the discretion of forest planning).²⁴⁴ This two-class managing approach for the IRA is problematic because it treats Forest Plan IRAs as second class citizens, often allocating them to management areas that permit activities that degrade roadless values.²⁴⁵ The Final EA limits its analysis of the Project’s proposed 450 acres of timber harvest in the Jobildunk IRA, and 548 acres of timber harvest in the North Carr Mountain IRA, by only considering the percentage of each area that is impacted by harvest and whether that amount would

²⁴² TIER 2 BAT PROGRAMMATIC BIOLOGICAL OPINION, *supra* note 58.

²⁴³ *Id.* at 27; *cf.* U.S. FOREST SERV., PEABODY WEST INTEGRATED RESOURCE PROJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT 26 (Apr. 2023) (stating no project activities were proposed in the project area).

²⁴⁴ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT: INVENTORIED ROADLESS AREA BACKGROUND 3, (June 2024).

²⁴⁵ 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).” FINAL EA, *supra* note 3, at 26. 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.

disqualify the IRA from future inventory and evaluation for potential wilderness designation. Although this is an important piece of baseline information, it is merely one of many impacts the Service must consider when taking a hard look at effects to IRAs. Standing Trees recommended a more holistic view, arguing that all roadless areas, regardless of their designation according to the RACR, merit protection—and at least a thorough analysis—of impacts and alternatives due to their inherent value.²⁴⁶ The Final EA did not take these recommendations into consideration by taking a hard look at impacts or by developing an alternative that protected roadless areas.

The Final EA failed to perform a detailed site-specific analysis on the impacts of proposed timber harvests, roads, and other activities on Jobildunk and North Carr Mountain IRAs. Standing Trees specifically recommended that the Service acknowledge significant impacts and consider in detail, at least one alternative that would avoid, or at least significantly mitigate such impacts. However, the Final EA offers only one action alternative but does not present a detailed alternative that would significantly reduce or eliminate the impacts of the timber harvest within the project area and the Forest Plan IRAs. The unique characteristics of these IRAs are described in detail in Plan Appendix C, “Inventoried Roadless Area Evaluations.” These descriptions should serve as a minimum baseline against which to measure proposed impacts. Instead, the Service relied on arbitrary thresholds for future consideration for wilderness designation when the Plan is revised. Even if such thresholds were reasonable, the Service did not take a hard look at the Project’s site-specific impacts.

The Final EA also neglects to address how the proposed road construction and harvest activities will comply with the Plan’s Transportation Objectives. The Project’s transportation requirements will make it impossible to remain true to the objectives of constructing only necessary roads and decommissioning unnecessary ones. Specifically, the Project fails to “construct only those roads necessary to meet the management objectives of the Forest Plan” and to “decommission all... roads necessary to meet the management objectives of the Forest Plan as funding is available.”²⁴⁷ This failure to align the Project with established Plan objectives demonstrates a lack of thorough analysis and commitment to long-term resource protection.

Furthermore, the Final EIS (“FEIS”) to the 2005 Plan notes that “expected management under all alternatives should result in no new through roads, few new roads permanently open to public traffic, and decommissioning of some existing roads (see Appendix D). Road construction would be limited to roughly one mile per year in all alternatives. Therefore, most areas that currently lack roads, including Inventoried Roadless Areas, will remain in

²⁴⁶ Standing Trees, along with 38 other groups, submitted a comment to the Service regarding its proposal to repeal the RACR. Standing Trees and fellow commentors emphasized the importance roadless areas play in the National Forest System and New England in particular. Roadless areas are important because they provide exceptional value for biodiversity, flood and drought risk reduction, carbon storage, climate resilience, and phenomenal and undisturbed recreation opportunities. *See Standing Trees, Comments on Notice of Intent to Prepare an Environmental Impact Statement and Initiate a Rulemaking on the Roadless Area Conservation Rule, Docket No. FS-2025-0001 at 16 [hereinafter Standing Trees et al. Comments on Proposed RACR Recission] (Exhibit 45).*

²⁴⁷ 2005 PLAN, *supra* note 19, at 1-17.

this condition for the foreseeable future.”²⁴⁸ The Final EA fails to note how road and skid trail impacts in the Jobildunk and North Carr Mountain IRAs in the Proposed Action is justified in light of this FEIS analysis.

Because of the uniqueness of these areas, it is imperative that the 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. Completion of an EIS would help to ensure that all impacts to IRAs are taken into account.

Requested Remedy: The Service should complete EIS analysis to meet “hard look” review and provide site-specific information on the impacts of the Lost River IRP on RACRs and Plan IRAs.

E. Road Construction Impacts

The Service fails to take a sufficient “hard look” at the Project’s transportation and road construction impacts. In the Final EA, the Service relies on the 2015 WMNF transportation analysis process (“TAP”) for support of the Project plan.²⁴⁹ The Service claims the Project is needed in order “to complete a site-specific transportation analysis to implement or modify the 2015 travel analysis process recommendations within the project areas.”²⁵⁰ However, the TAP is intended to provide guidance for carrying out site-specific transportation analysis for projects to assess compliance with NEPA.²⁵¹ Seemingly counter to this purpose, the Service implies the project is needed to complete the analysis rather than the analysis being needed to comply with NEPA.²⁵² The Service is required to conduct a site-specific transportation analysis of the impacts of the Project in order to comply with NEPA.

The Final EA does not provide a detailed analysis of transportation or the impacts of road reconstruction in the Environmental Impacts discussion.²⁵³ There is also no analysis of how proposed transportation-related activities compare to what is expected or permitted in the Forest Plan.²⁵⁴ The Final EA states that access roads for vegetation management areas will meet modern design standards,²⁵⁵ but it fails to indicate how a significant number of units proposed for timber harvest will be accessed by roads or skid trails. This suggests that the Service has failed to

²⁴⁸ U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE LAND AND RESOURCE MANAGEMENT PLAN 3-198 (2005).

²⁴⁹ FINAL EA, *supra* note 3, at 7.

²⁵⁰ *Id.*

²⁵¹ U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST FOREST-WIDE TRAVEL ANALYSIS REPORT 1 (Sep. 2015).

²⁵² FINAL EA, *supra* note 3 at 7 (“The proposed project is needed to complete a site-specific transportation analysis to implement or modify the 2015 travel analysis process recommendations within the project area...”).

²⁵³ FINAL EA, *supra* note 3 at 7.

²⁵⁴ Specifically, the Final EA does not address how the project activities align with Road Location, Design, and Construction standards, including S-1, requiring roads to management objectives in the area; S-2, requiring standards to be determined based on all resources; and S-3, requiring consideration of soil erosion and slope stability for road location determinations. 2005 PLAN, *supra* note 19, at 2-27.

²⁵⁵ FINAL EA, *supra* note 3 at 13.

account for the access that will be needed for proposed activities or is instead failing to disclose those impacts.

While the Final EA does provide information on what some of the transportation system practices will be, it does not provide a detailed analysis of the potential impacts. The Final EA lacks analysis of proposed roads and skid trails potential to contribute to water quality issues and flooding through increased erosion and sedimentation; spread of invasive species; soil compaction resulting from the use of heavy machinery used to achieve the proposed road activities; and renewed fragmentation of wildlife habitat; among other impacts.²⁵⁶

Additionally, the Service's reliance solely on the 2015 TAP is insufficient to meet a hard look. The TAP explains that much of the datasets used were incomplete or out of date which would likely cause deficiencies in Project-level analysis.²⁵⁷ The datasets were intended to be supplemented with the missing data in 2016 and be followed by an updated report; however, the data and the report were never updated.²⁵⁸ By the 2015 report's own admission, further project-specific analysis was necessary to make an informed decision on a project transportation plan. The Service's authorization of road construction and transit infrastructure based solely on the TAP is arbitrary and capricious, and not in accordance with law.

The Objectors and the public have good reason to be concerned about such omissions of information. In the Sandwich Vegetation Management Project ("VMP"), lengthy skid trails up sometimes-steep hillsides were constructed to access remote harvest units without any disclosure to the public. As shown in the photograph below, the skid trail caused a range of environmental impacts, including worsened stormwater runoff and soil disturbance.

²⁵⁶ See generally, FB Environmental Associates et al., *A Regulatory, Environmental, and Economic Analysis of Water Supply Protection in Auburn*, U. OF ME. (October 2021), available at https://www.auburnmaine.gov/CMSContent/City_Manager/LakeAuburn_FinalReport%20UPDATED.pdf (Exhibit 12).

²⁵⁷ U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST FOREST-WIDE TRAVEL ANALYSIS REPORT 13 (Sep. 2015).

²⁵⁸ *Id.*



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

Some of the roads identified or proposed for the project cross perennial streams, making their change in status at odds with the 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.²⁵⁹

The 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.²⁶⁰ Yet, the Final 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. 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 “[m]aintenance activities are used to restore or regain the management objective of the road and improve or realign the roadway.”²⁶¹

²⁵⁹ See 2005 PLAN, *supra* note 19 at 2–25, G–7.

²⁶⁰ *Id.*

²⁶¹ FINAL EA, *supra* note 3 at 14.

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 Service failed to take a “hard look” at road and skid trail impacts in the Project area as required by NEPA. The Final EA also disregards the NEPA requirement to address all aspects of a proposal, such as the direct impacts of the infrastructure necessary to access and remove harvested timber and their associated impacts on the surrounding stands.

The Service neglected to complete a thorough evaluation of current HMU conditions to determine the impact of road reconstruction and construction which accurately accounted for and depicted all transportation needs. Since the Final EA does not contain a site-specific transportation analysis of the Project’s impacts on the area, the Service did not take a sufficiently hard look at the transportation impacts of the Project or failed to properly inform the public of the analysis.

Requested Remedy: The Service must take a “hard look” at the current conditions of the HMUs to adequately inform an analysis of the impacts of the Project on the area. The Service must conduct site-specific transportation analysis to meet the standard for “hard look” review and NEPA compliance and to properly inform the public of the Project’s impacts. The transportation analysis must also address the impacts of constructing access roads and use of heavy machinery in timber harvest.

F. Water Quality Impacts

In the Final EA, the Service seems to incorrectly assume that their unsupported claim of the Project’s compliance with the CWA and their hydrology analysis suffice as a “hard look” of water quality impacts under NEPA. 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 may not rely on outdated data to do so.²⁶² 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.”²⁶³ Up-to-date, *site-specific* analysis is necessary to understand the impacts that the Lost River IRP will have on the Pemigewasset River, Elbow Pond, Jackman Brook, Walker Brook, other perennial streams, and the watershed overall. The Service should have performed 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. This includes the impacts of road reconstruction as part of the Project and whether those impacts comply with the CWA and the Plan.

In response to comments by the Objectors and others, the Service stated that “[c]ompliance

²⁶² 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).

²⁶³ *Great Basin Res. Watch v. Bureau of Land Mgmt.*, 844 F.3d 1095, 1101 (9th Cir. 2016).

with the Clean Water Act will be disclosed in the forthcoming Environmental Assessment.”²⁶⁴ However, the Service’s disclosure of compliance offers little insight into how the Project was determined to comply with the CWA. The Service addresses the Project’s compliance in one line, stating “[b]y following state [best management practices], Forest Plan direction, and best available science, the proposed action is not expected to further contribute to these impairments.”²⁶⁵ This “disclosure” did not add any further information from that provided in the Draft EA and did not conduct any further analysis. 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 Service’s analysis without a baseline for current water quality data from the Project area.

Additionally, the Final 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.”²⁶⁶ For the resources mentioned, these on-site baseline conditions and refinements should be identified prior to completing the NEPA analysis. The Service acknowledges that field work is only done after the initial Project analysis and is conducted to “validate findings from the desktop analysis.”²⁶⁷ By the Service’s own admission, the Project analysis did not contain up-to-date field-collected data and is based on unvalidated data. The Service should have collected the above-mentioned information prior to submission of the Draft and Final EAs to provide more accurate descriptions of the impacted environment, analysis of how these resources may be impacted, and descriptions of how the Service might propose to address those impacts.

The Final EA does not contain any site-specific data or analysis, discussion of the determination of the Project’s compliance with the CWA, or descriptions of the Soil and Water Conservation Practices used for the Project. This lack of information provided by the Service to support its conclusory assessment of water quality impacts has left the public ill-suited to provide informed opinions about the Project and its potential implications on water quality. The Final EA fails to meet the NEPA “hard look” standard as it relates to hydrology and water quality in the Project area.

Requested Remedy: The Service should perform site-specific analysis in each of the Project areas and their surroundings to inform the Project plan and the public of the potential hydrological impacts of the Project. The Service should also provide a detailed analysis of how the Project complies with the CWA and meets the obligations of the Plan.

²⁶⁴ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT SCOPING COMMENT PERIOD SUMMARY AND CONSIDERATION REPORT 5 (Nov. 2024).

²⁶⁵ FINAL EA, *supra* note 3 at 28.

²⁶⁶ FINAL EA, *supra* note 3 at 8.

²⁶⁷ U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT SCOPING COMMENT PERIOD SUMMARY AND CONSIDERATION REPORT 1 (Nov. 2024).

G. Scenic and Recreational Values

The Service issued a Final EA that fails to take a hard look at scenic impacts to a stunning area in the western White Mountains. The Scenery Effects Analysis notes there is a potential for significant environmental effects to scenery.²⁶⁸ The Service failed to study some Project impacts to scenery, and its decision to authorize logging that exceeds the Plan’s Scenic Integrity Objectives is based on illogical reasoning. Such a faulty analysis is a failure to take a hard look, suggests there will be significant impacts to scenery, thus requiring the Service to conduct a full EIS for the Project.

The Service admitted that it did not analyze the impact of group selection treatments on scenery. It merely stated, “groups will be minimized in scale to be sensitive to scenic quality and reduce visual effects.”²⁶⁹ The Service proposed what is effectively a checkerboard of 2–3 acre clearcuts across the Project area but did not study the impacts. Mere reassurances are not a hard look, and do not fulfill the Service’s obligations under NEPA.

As discussed above, the Service found that numerous clearcuts and even-aged treatments will exceed what is allowed under the Plan’s scenery management standards and guidelines.²⁷⁰ For the Mount Tecumseh viewpoint, the Final EA states these exceedances are 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.” The Service did not explain why one objective should take precedence over another. Because Scenery Management Goals and Vegetation Management Goals are in conflict—apparently, one can only be achieved at the expense of the other if the proposed silvicultural treatments are applied—the Service is obligated to conduct a full alternatives analysis under NEPA.²⁷¹

Furthermore, the Service explained away significant impacts by explaining the Mount Tecumseh summit viewpoint is “a closed canopy of high-elevation spruce-fir forest on the western side, which obstructs the views looking west and northwest,” such that “the tree cover makes views to the west very diminished to non-existent.”²⁷² This ignores that both the Sosman and Mount Tecumseh Trails have western facing vistas just a few feet shy of the summit.

Moreover, the Service identified numerous other units that will also exceed their respective Scenic Integrity Objectives, including units 18, 48, 49 and 50. The Service explained that “design features and modified treatment units reduce overall visible acres and bring,” the units “within the limits of Forest Plan Guidelines for scenery management.” As discussed above, reliance upon these assumptions is faulty and is arbitrary and capricious.²⁷³

²⁶⁸ SCENERY EFFECTS ANALYSIS, *supra* note 92, at 1.

²⁶⁹ *Id.* at 6.

²⁷⁰ *See supra*, Section I.E.

²⁷¹ *See supra*, Section III.B

²⁷² FINAL EA, *supra* note 3 at 38.

²⁷³ *See supra*, Section I.E. (explaining that the included design features and modified treatment units will not yield the necessary visible acreage reductions of as much as 60 percent.).

The Service failed to take a hard look at impacts to scenery because the information in its scenery specialist analysis does not support the conclusion it made to find there would be no significant impacts to scenery, and to authorize the Project.²⁷⁴ For the reasons discussed previously, the explanations for the exceedances in permitted visible acreage and non-attainment of the Scenic Integrity Objectives from the Service are illogical and do not support their conclusion that multiple units will not exceed what is permitted under the Plan. The scenery analysis does not constitute a hard look under NEPA and fatally undermines its FONSI.

Requested Remedy: The Service must withdraw its Final EA and complete a full EIS that comprehensively assesses the competing values, goals, and desired conditions in the project area and the Forest. The EIS must include consideration of an alternative that meets or exceeds Forest Plan goals and guidelines for scenery management.

H. Soils Resources

The Service’s Final EA and accompanying Soils Report do not constitute the requisite “hard look” at the Project’s likely impacts on soil resources in the Project area for three reasons.

First, as with the Service’s missteps with respect to preliminary water quality analysis, nowhere in the Final EA and Soils Report does the Service indicate that it has acquired a valid baseline upon which to conclude that conditions in the Project area are suitable for timber harvest. The closest the Service comes is to suggest that “soil productivity [in the Project area] has been maintained following previous harvest” and that such results are consistent with Forest-wide data on desired soil conditions.²⁷⁵ Just as was true regarding its failure to obtain a water quality baseline, the Service has attempted to substitute historical, National Forest-wide data in lieu of more current, site-specific data.

Second, the Final EA fails to satisfy NEPA’s hard-look standard because as discussed in Section I.D, the Service has proposed actions that will likely require a site-specific modification of guidelines in the 2005 Plan without providing sufficient rationale for that modification. While Vegetation Management Guideline G-5 requires skid trails be located on grades below 20%,²⁷⁶ this project will build skid trails on grades up to 35%.²⁷⁷ The Service asserts that “[b]y following the recommended best management practices and design features … no detrimental effects are anticipated....”²⁷⁸ However, all projects should follow BMPs—so the Forest Plan’s G-5 guidelines was drafted under the presumption that BMPs would be followed, and determined the maximum grade for skid trails is 20%.

²⁷⁴ See *Baltimore Gas and Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 105 (1983) (The Service must make a “rational connection between the facts found and choices made[.]”).

²⁷⁵ SOILS REPORT, *supra* note 86, at 1.

²⁷⁶ 2005 PLAN, *supra* note 19, at 2–30.

²⁷⁷ SOILS REPORT, *supra* note 86, at 1.

²⁷⁸ *Id.* at 8.

The Service cannot logically justify its departure from a particular guideline in the Plan by explaining that the Service will mitigate the negative impacts by going about things in the usual way.

Third, the Final EA's unsupported assertion that “[c]onstruction would likely cause short-term sedimentation to the wetland” but that such sedimentation will “be minimized by usage of Forest Plan Standards” without identifying the proposed practices to be used violates NEPA’s requirement that agencies take a hard look at the reasonably foreseeable impacts of their actions.²⁷⁹ This curt dismissal of reasonably foreseeable impacts to soils that would recover from compaction within *at best* three years from the end of operations defers the development of those mitigating design features to a later time, removing any opportunity for the public to assess their validity or necessity. NEPA does not permit such agency action.

Requested Remedy: For these reasons, too, the Service must withdraw its EA and prepare an EIS that comprehensively assesses the competing values of resources in the Project area. With respect to soil resources, that EIS must contain, at a minimum, the Service’s establishment of a baseline for soil quality on the Project area; a more thorough explanation of the Service’s conclusion that the impacts of Project activities on soil resources will be totally mitigated by its adherence to BMPs; and evidentiary support for the proposition that design features would minimize temporary compaction of soils in the Project area.

I. Cumulative Impacts

The Forest Service failed to analyze cumulative impacts for the Project as required by NEPA. For virtually all resources studied, the Service constrained their analysis to just the Project area, thus failing to study the incremental impacts of past, present and reasonably foreseeable actions in the Forest. Even given this limited focus, its analysis of the adjacent X178-2 project ignored important impacts. In addition, the Final EA failed to take into account timber harvest on private lands adjacent and in proximity to the Forest, even though such lands formed the basis for the Plan analysis area. Especially since the Plan is overdue for revision, it is imperative for the Service to consider impacts in relation to present conditions across the surrounding landscape.

The Service is required by NEPA to consider the cumulative impacts of the Project.²⁸⁰ Cumulative impacts are defined as “effects on the environment that result from the incremental

²⁷⁹ FINAL EA, *supra* note 3 at 29.

²⁸⁰ 40 C.F.R. § 1508.7; *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976) (“[W]hen several proposals [for actions] actions that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together. Only through comprehensive consideration of pending proposals can the agency evaluate different courses of action...”). The Service is obligated to study the impacts of its dozen plus past, present and reasonably foreseeable commercial timber harvest projects because each project is under its jurisdiction and are implementing the management direction of a single programmatic NEPA document—the 2005 Plan. *See Seven Cnty. Infrastructure Coal.*, 145 S. Ct. at 1511 (2025) (explaining that “the environmental effects of the project at issue may fall within NEPA even if those effects might extend outside the geographical territory of the project or might materialize later in time...”). In sum, the recent *Seven County* decision does not alter this requirement; even if it did, the Service asserts here that it engaged in a

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.”²⁸¹ Notably, “[c]umulative effects can result from *individually* minor but *collectively* significant actions taking place over a period of time.”²⁸² Cumulative effects analysis requires the agency to define and apply a consistent geographic scope in which to analyze cumulative effects.²⁸³ 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[.]”²⁸⁴

The Service identified four projects that are entirely under its jurisdiction that “may overlap in time and space for certain resource areas,” the Pemi Northwest Project, Bowen Brook Project, Wanosh Project, and Tarleton Project. However, the Service merely mentioned the projects; it provided *no* analysis or accounting of the cumulative effects of the Project in conjunction with the projects it identified. NEPA requires more: the Service must analyze cumulative effects and account for incremental effects of past, present, and reasonably foreseeable actions on resources including forest health, climate, water, scenery, wildlife, and roadless areas. The four projects the Service noted in the Final EA are among more than a dozen commercial timber harvest projects in the Forest that are ongoing, proposed, or completed within the last ten years. The Service has jurisdiction over all these projects and is obligated under NEPA to account for the incremental effects of these projects on resources including forest health, threatened and endangered species, water quality, soils, climate, and roadless areas in its cumulative effects analysis.

While the Service correctly identified that the X178-2 project is a reasonably foreseeable action that overlaps in time and space with the Project,²⁸⁵ its analysis is limited and ignores important impacts. The first mention of the X178-2 project was in the Final EA, after NEPA public comment periods closed.²⁸⁶ The X178-2 project was approved under a Categorical Exception, which afforded the public no opportunity for comment.²⁸⁷ Despite the Service's approval of the X178-2 project on August 19, 2024, it failed to report the X178-2 project in the Lost River Project's Draft EA, which was issued eight months later in April 2025.²⁸⁸ Thus, the Service deprived the public of any opportunity to comment on the impacts of the X178-2 project in conjunction with the Lost River Project.

cumulative impact analysis, and it must do so in a logical, well-reasoned manner. *See Seven Cnty. Infrastructure Coal.*, 145 S. Ct. at 1515 (2025) (agency decisions must “reasonable and reasonably explained.”); *See also Baltimore Gas and Elec. Co.*, 462 U.S. at 105 (The Service must make a “rational connection between the facts found and choices made[.]”).

²⁸¹ 40 C.F.R. § 1508.8(g)(3).

²⁸² *Id.* (emphasis added).

²⁸³ *See League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton*, 2014 WL 6977611, at *9-11 (D. Or. Dec. 9, 2014).

²⁸⁴ *Id.* at *9 (citing *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 902 (9th Cir. 2002); *Kleppe*, 427 U.S. at 414 (1976)).

²⁸⁵ FINAL EA, *supra* note 3 at 21.

²⁸⁶ FINAL EA, *supra* note 3 at 5.

²⁸⁷ U.S. FOREST SERV., CATEGORICAL EXCLUSION FOR EVERSOURCE X178-2 TRANSMISSION LINE REBUILD AND OPTICAL GROUND WIRE INSTALLATION 2-4 (Aug. 19, 2024) [hereinafter X178-2 Categorical Exception] (available at: <https://usfs-public.app.box.com/v/PinyonPublic/file/1814660032474>).

²⁸⁸ DRAFT EA, *supra* note 99.

The Service dismissed cumulative impacts from the X178-2 project in conjunction with the Project because the two immediately adjacent areas, the Crooked Pike and Bog Road areas, “receive very low recreation use compared to other areas on the Forest.”²⁸⁹ The Service identified 7 cutting units that share a spatial boundary with the X178-2 project area.²⁹⁰ It limited its analysis for cumulative effects to those 7 units, finding there would not be cumulative effects because “harvesting of the vegetation management units overlapping spatially with the X178-2 project is expected to begin in 2029,” a year after the X178-2 project is scheduled to be completed.²⁹¹ This analysis is too constrained and ignores potential cumulative impacts. The Project is scheduled to begin in 2027, shortly after the X178-2 project is slated to begin.²⁹² What about cumulative impacts with the other 38 units? The X178-2 project will use heavy lift helicopters and machinery to drill.²⁹³ What would impacts to recreation and threatened and endangered species be with almost two years of industrial noise from two overlapping projects on the Project area? The Service did not analyze these potential impacts.

Regarding non-native and invasive species (“NNIS”), the Service admits “the severity of current infestation is unknown” for the X178-2 project.²⁹⁴ Based on the lack of information, the Service cannot make a determination of whether there will be “cumulative effects to NNIS based on the activities of both projects.”²⁹⁵ Powerline corridors are vectors for invasive species, and leave the forests that flank them vulnerable.²⁹⁶ The Service should wait until it has all the information to issue a decision on the Lost River IRP.

Regarding climate change and carbon, the Service failed to account for emissions from past, present, and reasonably foreseeable projects on the Forest—projects it has sole jurisdiction over. The methodology the Service established in its Carbon White Paper instructs that carbon assessments are to be conducted at the Forest-level.²⁹⁷ A Forest-level analysis must include emissions from past, present and reasonably foreseeable actions.

Regarding scenery, the Service stated that “no reasonably foreseeable silvicultural proposals are identified within the analysis area.”²⁹⁸ This is false. There are at least two reasonably foreseeable proposals within the analysis area. The Tarleton IRP—which the Service mentioned as a reasonably foreseeable action—is authorized to go forward and includes logging that will be visible from Mount Moosilauke, one of the viewpoints for this project. The Service also announced its intent to conduct an EIS for the Waterville Valley Resort Expansion project on

²⁸⁹ FINAL EA, *supra* note 3 at 32.

²⁹⁰ *Id.* at 21.

²⁹¹ *Id.*

²⁹² *Id.* at 8 (“Project implementation is expected to start in 2027); *Id.* at 21 (X178-2 is expected to begin in December 2026).

²⁹³ X178-2 Categorical Exception, *supra* note 287 at 2–4.

²⁹⁴ FINAL EA, *supra* note 3 at 31.

²⁹⁵ *Id.*

²⁹⁶ *Environmental Impact of Transmission Lines*, PUB. SERV. COMM’N WIS., 26–27 (Mar. 30, 2021) (available at: <https://www.nrc.gov/docs/ML1209/ML12090A853.pdf>) (Exhibit 46).

²⁹⁷ U.S. FOREST SERV., FOREST CARBON ASSESSMENT FOR THE WHITE MOUNTAIN NATIONAL FOREST IN THE FOREST SERVICE’S EASTERN REGION 4 (Jan. 2024) (emphasizing that “[c]arbon assessments at the scale of the NFS *unit* help to inform project-level carbon analysis in a consistent, efficient, and unbiased manner.”).

²⁹⁸ FINAL EA, *supra* note 3, at 33.

May 16, 2025—two days after comments were due for the Lost River Project Draft EA. The Waterville Valley Resort is located on the slopes of Mount Tecumseh, a viewpoint analyzed in this project. The Lost River Project proposes numerous cuts that would exceed the viewable acres permitted under the Plan’s Scenic Integrity Objectives, notably, including failing to meet Scenic Integrity Objectives for the Mount Tecumseh viewpoint. The Service cannot authorize the project given this deficiency: NEPA does not permit an agency to use incomplete data in its analysis.²⁹⁹ The Service must include these projects and conduct a thorough review to ensure it did not exclude other past, present or reasonably foreseeable projects in the analysis area.

The Service’s cumulative effects analysis for forest health does not square with the analysis it conducted in the Plan. In the FEIS for the 2005 Plan, the Service used a broad analysis area that accounted for timber harvest on private lands.³⁰⁰ For example, in the FEIS, the Service even acknowledged logging on private lands in conjunction with timber harvest in the Forest would reduce the snag, cavity tree, and down log habitat because logging on private lands is not subject to “strict requirements” to preserve such habitat.³⁰¹ To avoid arbitrary decision-making, the Service must conduct such an analysis for this Project too.

Finally, the Service failed to take a hard look at cumulative impacts to both RACR and Forest Plan IRAs. Since the issuance of the Final EA and Draft Decision Notice, the Service proposed to rescind the RACR.³⁰² This proposed change is reasonably foreseeable and directly implicates the proposed logging adjacent to RACR and within Forest Plan IRAs. The Service must account for the likelihood that the rule change will increase logging, road-building, and fuel management in areas that are currently restricted—including the risk of projects subject to categorical exclusions that will not be subject to detailed NEPA review.

If the rule is repealed, it could significantly increase future development, fragmentation, habitat disturbance and lead to changes in local and regional hydrology.³⁰³ If these RACR IRAs could be opened to activities similar to this project, the potential area and intensity of logging effects identified in the cumulative impacts analysis would likely expand—not just considering the project footprint, but newly available acres across multiple overlapping actions.³⁰⁴

²⁹⁹ See *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 371 (1989) (“NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.”)

³⁰⁰ See U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE LAND AND RESOURCE MANAGEMENT PLAN 3–86 (2005).

³⁰¹ See *Id.* at 3–112.

³⁰² Special Areas; Roadless Area Conservation; National Forest System Lands, 90 Fed. Reg. 42179 (Aug. 29, 2025). Even though this submission is new information, it is a permissible submission under NFMA because it is based on new information that arose after completion of the Draft and Final EAs. See 36 C.F.R. § 218.8(c) (“Issues raised in objections must be based on previously submitted specific written comments regarding the proposed project or activity and attributed to the objector, *unless the issue is based on new information that arose after the opportunities for comment*”) (emphasis added).

³⁰³ See Standing Trees et al., Comments on Notice of Intent to Prepare Environmental Impact Statement and Initiate a Rulemaking on the Roadless Area Conservation Rule, Docket No. FS-2025-0001, at 13–16.

³⁰⁴ As Standing Trees has documented in other submissions, similar commercial timber harvest adjacent to RACR and within Forest Plan IRAs was authorized for numerous ongoing projects on the Forest including the Peabody West IRP and Sandwich VMP. See Standing Trees, Objection to Peabody West Integrated Resource Project #55659,

The Service failed to take a hard look at cumulative impacts to numerous resources, including forest health, recreation, scenery, water, wildlife, roadless areas, climate, invasive species, and cumulative impacts generally overlapping in time and space with the X178-2 project. The Service cannot lawfully authorize this Project until it accurately accounts for incremental and cumulative impacts from past, present and reasonably foreseeable projects in conjunction with the Lost River Project.

Requested Remedy: The Service must withdraw its EA and complete a full EIS that comprehensively assesses the cumulative impacts of past, present and reasonably foreseeable actions, including the Service's planned rollback of protections for roadless areas.

VII. As Proposed, the Project Will Have “Significant” Impacts and Requires an EIS

As discussed in the Objectors' prior comments on the Draft EA and elsewhere in the objection, the Project threatens the affected area with a range of significant impacts to multiple resources.³⁰⁵ Nonetheless, the Service issued a FONSI and did not issue an EIS.

The FONSI is conclusory, unsupported by the facts provided, and thereby violates NEPA. Because the Project is a major federal action that will significantly impact the quality of the human environment, the Service must conduct additional NEPA analysis in the form of an EIS. Considering the context, intensity, and resulting significance of these impacts, it is evident that an EIS is warranted to comprehensively evaluate the Project's environmental effects.

A. The Service Fails to Adhere to NEPA by Inadequately Addressing the Significant Environmental Impacts in the Final EA

Significant effects caused by an agency action require an EIS.³⁰⁶ To determine if effects are significant, an agency must consider (1) both short-term and long-term effects; (2) both beneficial and adverse effects; (3) effects on public health and safety; and (4) effects that would violate federal, state, tribal, or local law protecting the environment.³⁰⁷ Further, agencies are required to consider the “*degree* to which the action may adversely affect an endangered or threatened species or its habitat, including habitat that has been determined to be critical under

Androscoggin Ranger District, White Mountain National Forest 31 (June 12, 2023) (Exhibit 18); Standing Trees et al., Objection to Sandwich Vegetation Management Project, Saco Ranger District, White Mountain National Forest 31-33 (Apr. 1, 2024).

³⁰⁵ The Service's FONSI for the Lost River IRP differs in substantial respects from the projects analyzed in the recent decision in *Standing Trees v. United States Forest Service*, which the Objectors do not concede was correctly decided and is subject to appeal. For example, as explained in this section, Objectors' concerns address inconsistent application of binding regulations, hampering of public participation, and improper limiting of the geographic scope of the analysis area, among others, which were not at issue in that case.

³⁰⁶ 40 C.F.R. § 1501.3 (a)(3).

³⁰⁷ 40 C.F.R. § 1501.3(b)(2).

the [ESA].”³⁰⁸ Significant impacts can be widespread as well as localized in a site specific action.³⁰⁹

The Service is required under NEPA to complete an EIS for the Project given the high probability of significant environmental impacts to numerous resources. The Final EA is not sufficient given the location, intensity, and cumulative impact of the Project’s activities. Silvicultural treatments will take place on 1,093 acres of public land including 206 acres of clearcutting.³¹⁰ Commercial timber harvesting requires the construction of “log landings” sites, access roads, and skid trails with long periods of inactivity and multiple seasons to complete harvesting.³¹¹ In addition to commercial harvesting, non-commercial site preparation and release treatments will occur three years following harvest.³¹² The Service anticipates these “vegetation management activities” will occur over “several years.”³¹³ An EA is not sufficient to assess the intensity, size, duration, and cumulative impacts of the significant forest management activities in the Lost River IRP. Yet, the Service issued a FONSI, contrary to NEPA.

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.”³¹⁴ FONSI should include “discussion to show why more study is not warranted.”³¹⁵ A FONSI requires the following standard: (1) “the agency must have accurately identified the relevant environmental concern”; (2) once the agency has identified the problem, “it must have taken a hard look at the problem in preparing the EA”; (3) “if a finding of no significant impact is made, the agency must be able to make a convincing case for its finding”; and (4) “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.”³¹⁶ It is imperative the Service follows the necessary procedures as prescribed by NEPA.³¹⁷

The Service fails to provide complete environmental information and does not adequately support its finding of no significant impact.³¹⁸ For example, the Service does not have relevant, up-to-date environmental information regarding the presence of the Northern Long Eared Bat

³⁰⁸ 40 C.F.R. § 1501.3(d)(2)(vi) (emphasis added).

³⁰⁹ 40 C.F.R. § 1508.27(a).

³¹⁰ FINAL EA, *supra* note 3, at 8–9.

³¹¹ *Id.* at 9.

³¹² *Id.*

³¹³ *Id.* at 36.

³¹⁴ 40 C.F.R. § 1501.5(c)(1) (emphasis added).

³¹⁵ 40 C.F.R. § 1502.2(b) (2020).

³¹⁶ *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.C. 1985)); *see also Sierra Club v. Peterson*, 717 F.2d 1409, 1413 (D.C.Cir.1983); *Cabinet Mountains Wilderness/Scotchman’s Peak Grizzly Bears v. Peterson*, 685 F.2d 678, 681–82.

³¹⁷ *See Seven Cnty. Infrastructure Coal. v. Eagle Cnty., Colorado*, 145 S. Ct. 1497, 1504, 1511 (2025) (stating “[NEPA] ensures that the agency and the public are aware of the environmental consequences of proposed projects” and emphasizing the importance of “procedure” in NEPA).

³¹⁸ *Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d 60 (D.C. Cir. 1987); *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.”).

(NLEB) in the project area, including where the NLEB roosts exists.³¹⁹ In addition, the Service found the project had the potential for significant impacts to scenery, but failed to provide mitigation factors that would reduce impacts to scenery below significant levels.³²⁰

Requested Remedy: The Service should withdraw the FONSI and conduct an EIS to ensure the significant effects of the Project are adequately addressed.

B. The Service Did Not Adequately Construe the Potentially Affected Environment

The FONSI fundamentally rests on the unsupported conclusion 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.”³²¹ Contrary to NEPA’s requirements, the FONSI fails to adequately and consistently characterize the potentially affected environment and degree of Project impacts.³²²

The potentially affected environment is the context of the Project. The context, under NEPA, requires the significance of the action to be analyzed given the “national, regional, or local” context of the affected areas in the Project.³²³ In a site-specific action, significance would usually depend on the effects in the local context as opposed to the nation.³²⁴ Both short-term and long-term effects are relevant.³²⁵

The FONSI’s discussion of “potentially affected environment” does not rationally establish the context for the analysis of impacted resources. The analysis the Service provides for 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.”³²⁶ The Service cannot minimize the impact of activity in the context by adopting a scale of analysis so broad that it trivializes site-level impact, or so narrow as to ignore foreseeable impacts outside of the Project area, such as cumulative impacts.³²⁷ Significance would usually depend only upon the effects in the local area.³²⁸ The Service’s resort to simple numeric measurement of the size of the Project and the size of the WMNF improperly minimizes and obscures localized impacts from Project activities. Further, the cumulative impacts and climate affects should be measured at the National Forest level.³²⁹ As discussed in this objection, the Service only addresses the carbon emissions and climate impact relative to the national and

³¹⁹ TIER 2 BAT PROGRAMMATIC BIOLOGICAL OPINION, *supra* note 58, at 7 (stating only one acoustic survey was conducted in the project area in 2020).

³²⁰ See *supra* Sections I.E and VI.G.

³²¹ FINAL EA, *supra* note 3, at 36.

³²² 40 C.F.R. § 1501.3(b)(2); FINAL EA, *supra* note 3, at 36 (stating the analysis will be expanding “slightly beyond” the project area to measure effects).

³²³ 40 C.F.R. § 1501.3(b)(1) (2020).

³²⁴ 40 C.F.R. § 1501.3(b)(1).

³²⁵ 40 C.F.R. § 1501.3(b)(2).

³²⁶ FINAL EA, *supra* note 3, at 36.

³²⁷ *Fisherman’s Ass’ns v. Nat’l Marine Fisheries Serv.*, 265 F.3d 1028, 1035-37 (9th Cir. 2001)

³²⁸ 40 C.F.R. § 1501.3(b)(1) (2020).

³²⁹ See *Supra* Sections VI.B and VI.I.

global scale.³³⁰ The Service would find with greater consideration of the potentially affected environment that this Project is a major federal action significantly affecting the quality of the human environment.

Requested Remedy: The Service should withdraw the FONSI and complete an EIS to properly address the potentially affected environment of the Project.

C. The Forest Service Did Not Adequately Consider the Degree of the Project's Effects

In addition to inadequately characterizing the potentially affected environment, the FONSI fails to characterize the *degree* of Project impacts.³³¹ Nearly 20 years ago, the Service completed a much broader EIS for the Plan.³³² Its finding in most of the analysis area stated that given on-going loss of forested land and gradually decreasing parcel size, “areas of mature and old forest are probably being reduced in size and fragmented by houses, roads, and other activities.”³³³ The Plan is expired and statutorily required to be updated to include a relevant analysis of forest health.³³⁴ The FONSI rests on out-of-date data that, 20 years ago, indicated on-going loss of mature and old forests—and forested land in general. By failing to conduct an EIS, the Service is not considering the *degree* to which this Project will *actually* affect forest conditions, today.

Just as the Final EA failed to take a hard look at the carbon effects of the Project, the Service fails to adequately consider the degree of impacts of carbon with both short-term and long term effects.³³⁵ The Service estimates that 72,123 metric tons of carbon will be emitted.³³⁶ The EPA GHG equivalency calculator compares this to the emissions of 16,823 gasoline powered cars per year, and 15,030 homes’ electricity use for one year.³³⁷ This is not insignificant.

The Service states, “carbon will be removed from the atmosphere overtime as the forest regrows.”³³⁸ However there is no analysis of the degree of impacts to carbon sequestration in the time between clear cutting mature and old age class forests and waiting for the forest to mature again. The Service continues to dismiss significant impacts by comparing them to national and global emissions stating, “this proposed project affects a relatively small amount of forest land and carbon on the White Mountain National Forest and, in the near-term, might contribute an extremely small quantity of greenhouse gas emissions relative to national and global

³³⁰ *Id.*

³³¹ 40 C.F.R. § 1501.3(b)(2).

³³² U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE LAND AND RESOURCE MANAGEMENT PLAN 1 (2005).

³³³ *Id.* at 86.

³³⁴ 16 U.S.C. § 1604(f)(5).

³³⁵ 40 C.F.R. § 1501.3(b)(2).

³³⁶ U.S. FOREST SERV. LOST RIVER INTEGRATED RESOURCE PROJECT CARBON AND CLIMATE CHANGE REPORT 10 (Jan. 2025).

³³⁷ *Greenhouse Gas Equivalencies Calculator*, U.S. ENV’T PROT. AGENCY (Nov. 2024), <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

³³⁸ FINAL EA, *supra* note 3, at 30

emissions.”³³⁹ Because the global context is only part of the context, the Service fails to adequately explain the Project’s impact in the proper regional context of the Forest itself. The Service ignored the cumulative impacts of this Project in conjunction with more than a dozen other commercial timber harvest projects.³⁴⁰

The Service simply concluded that the Project would have “no measurable impacts” on water quality.³⁴¹ There was no analysis of how older forests can mitigate the cumulative effects on droughts, water quality, and flooding. Research in New England has demonstrated that “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.”³⁴² For the same reasons the FONSI fails to adequately characterize those impacts or their “degree.”³⁴³

Requested Remedy: The Service should withdraw the FONSI and complete an EIS to adequately assess the degree of effects in areas such as forest health, water, scenery, and climate.

D. The EA Makes Only Scant Mentions of the Impacts to Quality of Life and Public Safety

The FONSI fails to analyze the “degree to which the proposed action affects public health or safety”³⁴⁴ concluding only that the 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.”³⁴⁵

The Final EA offers no evidence that this is true, and this statement cannot be used to meet the requirement to assess this specific Project thoroughly. 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. The only consideration to public safety by the Service was instituting a “50-foot no-cut buffer . . . on unit 36 where it abuts the Eversource X178 powerline corridor.”³⁴⁶ 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 and site-specific basis.

³³⁹ U.S. FOREST SERV. LOST RIVER INTEGRATED RESOURCE PROJECT CARBON AND CLIMATE CHANGE REPORT 4 (Jan. 2025).

³⁴⁰ See *supra* Section VI.I.

³⁴¹ FINAL EA, *supra* note 3, at 29.

³⁴² FB Environmental Associates et al., *A Regulatory, Environmental, and Economic Analysis of Water Supply Protection in Auburn*, U. OF ME. 40 (October 2021) (available at: https://www.auburnmaine.gov/CMSContent/City_Manager/LakeAuburn_FinalReport%20UPDATED.pdf (Exhibit 12)).

³⁴³ 40 C.F.R. § 1501.3(b)(2).

³⁴⁴ 40 C.F.R. § 1501.3(b)(2).

³⁴⁵ FINAL EA, *supra* note 3, at 41.

³⁴⁶ *Id.* at 16.

The Service fails to describe the very real risks to public health and safety or to ensure that these are minimized or avoided.³⁴⁷ For example, in light of recent, catastrophic flooding in New England—and around the world—the Service should consider how old forests can mitigate the catastrophic effects of climate change. The Service’s assertion that silvicultural management will make the Forest more resilient to climate change is baseless because it is unsupported by any analysis. In fact, old forests are 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.³⁴⁸ 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.³⁴⁹ 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.³⁵⁰ 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 streams, rivers, and lakes.³⁵¹ Scientists have also shown that old forests are exceptional at removing nutrients, like phosphorus, that drive harmful algae blooms.³⁵²

The FONSI does not adequately consider the degree of impact to the local area. Impacts from logging could include noise and air pollution, damage to local roads, interruption to emergency services, and economic value to the community. The Service consistently dismisses these impacts as “limited.”³⁵³ For example, Vermont’s state and federal public lands provide a major benefit to public health and well-being at an estimated value of \$2.25 billion in ecosystem services each year.³⁵⁴ The most valuable services are, in order, Recreational Opportunities, Air Quality Regulation, and Climate Regulation.³⁵⁵ Given the impacts on mature forests’ contributions to public health and safety, this factor weighs in favor of requiring a finding of significance and preparation of an EIS.

³⁴⁷ *Id.* at 41.

³⁴⁸ DellaSala et al., *Measuring Forest Degradation via Ecological-integrity Indicators at Multiple Spatial Scales*, BIOLOGICAL CONSERVATION (Dec. 13, 2024) (Exhibit 2).

³⁴⁹ Warren et al., *Ecology and Recovery of Eastern Old-Growth Forests*, ISLAND PRESS 161 (Island Press 2018) (Exhibit 47) (Exhibit 61 to Standing Trees Sandwich Comment).

³⁵⁰ Underwood & Brynn, *Enhancing Flood Resiliency of Vermont State Lands*, VT. FORESTS, PARKS & RECREATION 8–10, 13 (2015) (Exhibit 48) (Exhibit 60 to Standing Trees Sandwich Comment).

³⁵¹ *Id.*

³⁵² Warren et al., *supra* note 346, at 168

³⁵³ FINAL EA, *supra* note 3, at 31, 33.

³⁵⁴ Spencer Phillips, *The Economic Value of Vermont’s Public Conservation Lands*, KEY-LOG ECONOMICS 17 (Aug. 2025) (noting, in contrast, the value of timber from these public lands represents only about 0.13% of the ecosystem service value) (Exhibit 49). While this paper is a new submission by Standing Trees to the Service, this paper was issued in August 2025, well after the Draft EA comment period closed, and is a permissible submission under NFMA. See 36 C.F.R. § 218.8(c) (“Issues raised in objections must be based on previously submitted specific written comments regarding the proposed project or activity and attributed to the objector, *unless the issue is based on new information that arose after the opportunities for comment...*”)(emphasis added). Although it focuses on public lands in Vermont, its findings are informative of the value of ecosystem services in New Hampshire and the WMNF because both states’ public lands share much of the same dominant forest types and are managed under multiple-use stewardship.

³⁵⁵ *Id.* at 1.

Requested Remedy: The Service should withdraw the FONSI and complete an EIS to ensure the Project's effects to public health and safety are properly addressed.

E. The FONSI Does Not Demonstrate that the Project's Effects Would Not Violate Federal, State, or Local Laws Protecting the Environment

In considering the degree of the effects, the Service should consider whether the effects would violate Federal, State, Tribal, or local law protecting the environment.³⁵⁶ The FONSI does not meet the CEQ's regulations because the 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 confusing citing the administration's repeal of those regulations.³⁵⁷ This lack of clarity inhibits the public from contributing meaningfully, and it creates uncertainty regarding what NEPA procedures and standards are applicable here.

Under the ESA, the Service is obligated to initiate or reinitiate consultation related to projects that may affect NLEB habitat to ensure that any agency action will not jeopardize the continued existence of the NLEB or result in the destruction or adverse modification of NLEB habitat.³⁵⁸ The Service "shall use the *best* scientific and commercial data available"³⁵⁹ to determine the Project is not likely to jeopardize the continued existence of any TES.³⁶⁰ The Service did initiate consultation and determined the project was likely to adversely affect the NLEB.³⁶¹ However, the Service did not rely on the best scientific and commercial data available. Instead, the Service's strongest scientific data regarding the bat in the Project area was acoustic bat surveys conducted at *one* site in the project area by researchers over five years ago.³⁶² The FONSI does not provide analysis on the Service's decisions in the Lost River IRP, and instead, reaches conclusions unsupported by science. The FONSI implicates potential violations of the ESA, and thus, in violation of NEPA.³⁶³

In addition, for the reasons discussed in this objection, the Project risks substantial noncompliance with NFMA because of the Service's disregard for the Plan and with the CWA given the Service's cursory treatment of impacts to water quality.³⁶⁴ These factors also weigh in favor of preparing an EIS to ensure the Projects effects would not violate Federal, State or local law.

Requested Remedy: The Service should withdraw the FONSI and complete an EIS to ensure no federal, state, or local laws will be violated by the Project.

³⁵⁶ 40 C.F.R. § 1501.3(b)(2)(iv).

³⁵⁷ See *supra* Section IV.

³⁵⁸ 16 U.S.C. § 1536(a)(2).

³⁵⁹ 16 U.S.C. § 1536(a)(2).

³⁶⁰ 16 U.S.C. § 1536(a)(2).

³⁶¹ FINAL EA, *supra* note 3, at 23.

³⁶² TIER 2 BAT PROGRAMMATIC BIOLOGICAL OPINION, *supra* note 58, at 7.

³⁶³ 40 C.F.R. § 1501.3(b)(2)(iv).

³⁶⁴ *Supra* Section I.C and VI.F.

VIII. Conclusion

For the foregoing reasons, Standing Trees and Sierra Club New Hampshire object to the Lost River IRP and requests that the Service either drop the Project altogether or address the manifest errors contained in its Final EA. To cure these errors, and given the significance of this Project, the Service must prepare an EIS that adequately evaluates the significant impacts posed by the by the Project and ensures its compliance with NEPA, NFMA, and other legal requirements.

Respectfully submitted,

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Table of Exhibits

Number	Exhibit Title
1	U.S. Forest Serv., <i>Details for USDA Forest Service, White Mountain National Forest, Pemigewasset Ranger District</i> , New Hampshire Union Leader (Aug. 8, 2025), https://www.unionleader.com/classifieds/legals/all_legals/usda-forest-service-white-mountain-national-forest-pemigewasset-ranger-district/ad_b04d56e%e2%80%a6/ [https://www.fs.usda.gov/r09/whitemountain/projects/63401] (Exhibit 1 to Standing Trees Sandwich VMP Objection).
2	DellaSala et al., <i>Measuring forest degradation via ecological-integrity indicators at multiple spatial scales</i> , BIOLOGICAL CONSERVATION (Dec. 13, 2024)
3	Markuljaková et al., <i>Rewilding beech-dominated temperate forest ecosystems: effects on carbon stocks and biodiversity indicators</i> , iFOREST (Feb. 2, 2025)
4	Brown et al., <i>Net carbon sequestration implications of intensified timber harvest in Northeastern U.S. forests</i> , ECOSPHERE (2024)
5	Birdsey et al., <i>Middle-aged forests in the Eastern U.S. have significant climate mitigation potential</i> , Forest ECOLOGY AND MANAGEMENT (Sep. 14, 2023)
6	Jong et al., <i>Increases in extreme precipitation over the Northeast United States using high-resolution climate model simulations</i> , NPJ CLIMATE AND ATMOSPHERIC SCIENCE (2023)
7	Peng et al., <i>The carbon costs of global wood harvests</i> , 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., <i>Assessment of the influence of disturbance, management activities, and environmental factors on carbon stocks of U.S. national forests</i> , 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., <i>Maximum likelihood estimators are ineffective for acoustic detection of rare bat species</i> , PLOS ONE, 11 (Apr. 2025)
11	Abagael Giles, <i>Snowshoe hares have a camouflage problem. These scientists want to help</i> , WBUR (April 25, 2025), https://www.wbur.org/news/2025/04/25/snowshoe-hares-climate-change-new-england-no-snow
12	FB Env'l. Assocs. et al, <i>A Regulatory, Environmental, and Economic Analysis of Water Supply Protection in Auburn, Maine</i> (October 2021), available at https://www.auburnmaine.gov/CMSContent/City_Manager/LakeAuburn_FinalReport%20UPDATED.pdf

13	U.S. FISH AND WILDLIFE SERV., SPECIES STATUS ASSESSMENT FOR THE NORTHERN LONG-EARED BAT (<i>MYOTIS SEPTENTRIONALIS</i>) (version 1.2, Aug. 2022) (Exhibit 1 to Standing Trees Sandwich VMP Comment).
14	Standing Trees, Comment on Scoping Letter for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest (Oct. 6, 2023)
15	Standing Trees & Sierra Club New Hampshire, Comment Letter on Draft Environmental Assessment and Preliminary Find of No Significant Impact for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest, (May 14, 2025)
16	Northern Long-eared Bat, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis (last visited Sep. 22, 2025).
17	Standing Trees & Wonalancet Preservation Association, Comment on Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest 35 (Aug. 30, 2023)
18	Standing Trees, Objection to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest (June 12, 2023)
19	Standing Trees, Objection to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest 45 (May 1, 2023)
20	Robert A. Askins, <i>The Critical Importance of Large Expanses of Continuous Forest for Bird Conservation</i> , 25 BIOLOGY FACULTY PUBLICATIONS 1, 25 (2015) (Exhibit 6 to Standing Trees Lost River IRP Scoping Comments).
21	Thorn et al., <i>The Living Dead: Acknowledging Life After Tree Death to Stop Forest Degradation</i> , 18 FRONTIERS ECOL. & ENV'T. 505 (2020) (Exhibit 7 to Standing Trees Lost River IRP Scoping Comments).
22	Evans and Mortelliti, <i>Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher</i> , 13 ECOSPHERE 1 (Nov. 24, 2021)
23	Freeman et al., Logging Disrupts the Ecology of Molecules in Headwater Streams, PNAS (Aug. 26, 2025).
24	U.S. FOREST SERV., LOST RIVER INTEGRATED RESOURCE PROJECT DRAFT ENVIRONMENTAL ASSESSMENT 30-DAY COMMENT PERIOD SUMMARY AND RESPONSE REPORT (Aug. 2025)
25	U.S. FOREST SERV., TARLETON SCENERY MANAGEMENT SPECIALIST REVIEW AND SUMMARY
26	Standing Trees, Comment on Peabody West Integrated Resource Project Draft EA (Sep. 6, 2022)
27	Standing Trees & Lake Tarleton Coalition, Comment on the Lake Tarleton Integrated Resource Project (May 11, 2022)

28	U.S. FOREST SERV., FOREST SERVICE HANDBOOK 1909.15 – NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK ch. 40, (2010).
29	Faison et al., <i>Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States</i> , FOREST ECOLOGY & MGMT. 544 (May 2023) (Exhibit 11 to Standing Trees Lost River IRP Scoping Comments).
30	Craig G. Lorimer and Alan S. White, <i>Scale and Frequency of Natural Disturbances in the Northeastern US: Implications for Early Successional Forest Habitats and Regional Age Distributions</i> , 185 FOREST & ECOLOGY MGMT. 41 (2003), available at http://www.maforests.org/Lorimer%20and%20White%20-%20ES%20Habitat.pdf (Exhibit 20 to Standing Trees Lost River IRP Scoping Comments).
31	United States Department of Agriculture, Forest Service, Mature and Old-Growth Forests: Analysis of Threats on Lands Managed by the Forest Service and Bureau of Land Management 19 (2023), https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/MOG-threat-analysis.pdf
32	Wilderness Watch & Standing Trees, Comment on Webster Cliff Trail Relocation Scoping Letter (Apr. 2, 2025).
33	Standing Trees & Sierra Club New Hampshire, Supplemental Comment on Draft Environmental Assessment and Preliminary Finding of No Significant impact for Lost River Integrated Resource Project (Aug. 1, 2025)
34	E-mail from Johnida S. Dockens, NEPA Coordinator, U.S. Forest Serv. to Zack Porter, Exec. Dir., Standing Trees (June 28, 2022, 5:02pm)
35	William R. Moomaw et al., <i>Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good</i> , FRONTIERS FOREST & GLOB. CHANGE, June 2019, at 1. (Exhibit 26 to Standing Trees Scoping Comment).
36	Eric Dinerstein et al., <i>A “Global Safety Net” to Reverse Biodiversity Loss and Stabilize Earth’s Climate</i> , SCI. ADVANCES, Sept. 2020)
37	Martin Jung et al., <i>Areas of Global Importance for Conserving Terrestrial Biodiversity, Carbon, and Water</i> , NATURE ECOLOGY & EVOLUTION 1499 (2021)
38	Keeton et al., <i>Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States</i> , 57 FOREST SCI. (Jan. 18, 2011)
39	Keith et al., <i>Re-evaluation of Forest Biomass Carbon Stocks and Lessons from the World’s Most Carbon-Dense Forests</i> , 106 PNAS 11635 (July 14, 2009) (Exhibit 2 to Standing Trees Scoping Comment)
40	Luyssaert et al., Old- growth Forests as Global Carbon Sinks, 455 NATURE (2008) (Exhibit 3 to Standing Trees Scoping Comment)
41	Leverett et al., Older Eastern White Pine Trees and Stands Sequester Carbon for Many Decades and Maximize Cumulative Carbon, FRONTIERS FOR GLOBAL CHANGE, (May 2021) (Exhibit 4 to Standing Trees Scoping Comment)
42	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).

43	Stephenson et al., <i>Rate of Tree Carbon Accumulation Increases Continuously with Tree Size</i> , 507 NATURE (Jan. 2014) (Exhibit 10 to Standing Trees Scoping Comment).
44	Duvaneck and Thompson, <i>Social and Biophysical Determinations of Future Forest Conditions in New England: Effects of a Modern Land-use Regime</i> 55 GLOBAL ENV'T CHANGE 115 (March 2019) (Exhibit 12 to Standing Trees Scoping Comment).
45	Comments on Notice of Intent to Prepare an Environmental Impact Statement and Initiate a Rulemaking on the Roadless Area Conservation Rule, Docket No. FS-2025-0001
46	Environmental Impact of Transmission Lines, Public Service Commission of Wisconsin, 26–27 (Mar. 30, 2021), https://www.nrc.gov/docs/ML1209/ML12090A853.pdf .
47	Warren et al., <i>ECOLOGY AND RECOVERY OF EASTERN OLD-GROWTH FORESTS</i> (Island Press 2018) (Exhibit 61 to Standing Trees Sandwich Comment).
48	Underwood and Brynn, <i>ENHANCING FLOOD RESILIENCY OF VERMONT STATE LANDS</i> , 8-10, 13 (Vt. Forests, Parks & Recreation 2015) (Exhibit 60 to Standing Trees Sandwich Comment).
49	Spencer Phillips, <i>The Economic Value of Vermont's Public Conservation Lands</i> , KEY-LOG ECONOMICS (Aug. 2025).