

October 6, 2023

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

Re: Comments of Standing Trees Regarding Scoping Letter for Lost River Integrated Resource Project #63401, Pemigewasset Ranger District, White Mountain National Forest

Dear Ranger Brown:

Standing Trees respectfully submits these comments regarding the U.S. Forest Service's ("Forest Service") Scoping Letter for the Lost River Integrated Resource Project ("Project" or "Lost River IRP").¹

Standing Trees is a grassroots membership organization that works to protect and restore New England's forests, with a focus on state and federal public lands in New Hampshire and Vermont. Standing Trees works to ensure New England's public lands are managed using just and equitable policies and practices to support the region's residents and natural ecosystems. This includes managing public lands and waters to maximize carbon storage and protect clean water, clean air, public health, and intact habitat for the region's native biodiversity. Standing Trees has many members who regularly visit and recreate throughout the White Mountain National Forest ("WMNF"), including the area impacted by the Project. The Environmental Advocacy Clinic at Vermont Law and Graduate School submits these comments on behalf of Standing Trees.

INTRODUCTION AND SUMMARY OF COMMENTS

The Forest Service is proposing the Lost River Integrated Resource Project—a substantial logging and recreation project within a Project area of approximately 1,950 acres. The Lost River IRP will significantly affect the southwestern WMNF, a portion of the forest nestled between marvelous Mt. Moosilauke and the stunning Kinsman Notch.

¹ U.S. FOREST SERV., White Mountain National Forest, Pemigewasset Ranger District, Lost River Integrated Resource Project Scoping Letter (Sept. 2023) (hereinafter "Scoping Letter"), available at <https://www.fs.usda.gov/project/?project=63401>.



Figure 1: View from Lost River Overlook

A significant but undisclosed portion of the Project area, including much of the acreage proposed for timber harvest, falls within three Inventoried Roadless Areas (“IRAs”) that harbor important headwaters, wildlife habitat, and areas prized for quiet recreation. The Forest Service claims this Project is “needed” because “[a]n analysis of the current habitat conditions indicates that the Lost River and Franconia Notch [Habitat Management Units] (“HMUs”)] are not meeting the MA 2.1 habitat composition and age class objectives,” and management action is needed to “increase forest health and vitality and resiliency within the project area, including to the effects of climate change and insect and disease outbreaks.”² The Forest Service claims this Project is “needed” because “[a]n analysis of the current habitat conditions indicates that the Lost River and Franconia Notch [Habitat Management Units (“HMUs”)] are not meeting the MA 2.1 habitat composition and age class objectives,” and management action is needed to “increase forest health and vitality and resiliency within the project area, including to the effects of climate change and insect and disease outbreaks.”³

² Scoping Letter at 3; see U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN at 1-21 (Sept. 2005) (hereinafter “WMNF Plan”), available at <https://www.fs.usda.gov/detailfull/whitemountain/landmanagement/planning/?cid=STELPRDB5199941> (indicating that the WMNF Plan objective for the cumulative percentage of regeneration age forest for each listed habitat type is 3.3%).

³ Scoping Letter at 3; see U.S. FOREST SERV., WHITE MOUNTAIN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN at 1-21 (Sept. 2005) (hereinafter “WMNF Plan”), available at <https://www.fs.usda.gov/detailfull/whitemountain/landmanagement/planning/?cid=STELPRDB5199941> (indicating that the WMNF Plan objective for the cumulative percentage of regeneration age forest for each listed habitat type is 3.3%).

The Forest Service initiated the scoping process for the Lost River IRP in May 2023 with a single in-person meeting and is now offering a 30-day comment period for public feedback on the limited information provided in the Scoping Letter. Despite Standing Trees’s extensive efforts to be fully involved and its pleas for greater engagement with stakeholders, the Forest Service has consistently failed to facilitate meaningful public participation in project development processes, and it appears poised to repeat the same mistakes here.

This Scoping Comment will outline Standing Trees’s concerns regarding the Lost River IRP based on the direction the Forest Service has taken with prior projects. Standing Trees urges the Forest Service not to repeat its recent failures to: complete Environmental Impact Statements (“EISs”) in light of the multiple factors compelling the Service to do so; properly frame and inform projects’ Purpose and Need Statements to support consideration of a full range of reasonable alternatives, including taking no action; meaningfully involve the public in its processes; conduct sufficient analysis of the Northern Long-Eared Bat (“NLEB”); and comply with all other applicable Federal laws and executive orders protecting the environment.

This Project, as proposed, implicates a host of significant environmental impacts, requiring the Forest Service to conduct an EIS according to the National Environmental Policy Act (“NEPA”). In particular, the assumed presence of the endangered NLEB within the WMNF and the dearth of up-to-date information regarding its hibernacula and roosting locations indicate that any projects pursued by the Forest Service will fail to properly address the potential impacts to that species. This puts the Project as currently conceived directly at odds with the Endangered Species Act (“ESA”), the 2005 WMNF Forest Plan (“Forest Plan”), the National Forest Management Act (“NFMA”), and the Administrative Procedure Act (“APA”).

The Forest Service should seize the opportunity to conduct a robust, comprehensive, and legally compliant environmental review by preparing an EIS.⁴ Any decision to proceed with the Project as proposed without a legally compliant environmental review would run afoul of federal law, result in significant adverse environmental impacts within the Project area and beyond, and be subject to meritorious administrative objections and legal challenges.

DETAILED COMMENTS

I. To Properly Frame and Inform the Lost River IRP’s NEPA Analysis, the Forest Service Must Create an Appropriately Broad, Informed Purpose and Need Statement.

NEPA directs that an EIS’s primary purpose is to “ensure agencies consider the environmental impacts of their actions in decision making.”⁵ Where environmental impacts are significant, “full and fair discussion . . . shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of

⁴ The Council on Environmental Quality (“CEQ”) promulgates regulations implementing NEPA that bind all federal agencies. Those regulations are found at 40 C.F.R. §§ 1500–1508. The CEQ amended its regulations effective September 14, 2020. *See* 40 C.F.R. § 1506.13 (2020) (Effective date). This Project was initiated under the amended version of the CEQ regulations, so all references to these regulations throughout the comment are to the 2020 version.

⁵ 40 C.F.R. § 1502.1.

the human environment.”⁶ An EIS shall “briefly specify the underlying purpose and need for the proposed action.”⁷ Considering that a project of this nature will have significant impacts,⁸ the Forest Service must proceed with its environmental review processes accordingly.

Some components of the Forest Plan (e.g., stand age and habitat type objectives) are both arbitrary and based on erroneous, out-of-date information. Unfortunately, the Forest Service has a history of developing Purpose and Need Statements informed by these flawed objectives. This not only precludes the agency from utilizing the best and most current science in its planning processes, but also inappropriately narrows the scope of forest management activities and prevents the Service from accurately considering reasonable alternatives. To comply with NEPA, NFMA, the Forest Plan, recent executive orders, and the Service’s own Handbook, the Forest Service must prepare a properly informed and framed Purpose and Need Statement for this Project that takes current scientific understandings of forest ecology into account.

Although Standing Trees believes that it is long past due for the WMNF to undertake a wholesale review and revision of its 2005 Forest Plan, the Project must still comply with, and yet fails to meet, the Plan’s goals and objectives in the following respects.

- A. The Purpose and Need Statement should consider the best and most current scientific understanding of the benefits of retaining mature forests for both carbon storage and forest ecosystem health.

The Purpose and Need Statement should be informed by the Forest Plan’s goals and objectives.⁹ Similarly, the Forest Service Handbook states:

The purpose and need statement defines the scope and objectives of the proposal. A well-defined purpose and need statement narrows the range of alternatives that may need to be developed in the “alternatives” section. It describes in detail why action is being proposed at that location and at that time. In this way, the purpose and need reflects the difference between the existing condition and the desired condition.¹⁰

The 2005 Forest Plan objectives help guide this determination. The Forest Plan guides the Service to diversify habitat types, aiming to increase the presence of spruce-fir habitat types and decrease the presence of northern hardwood and mixed wood habitat types.¹¹

⁶ *Id.*

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

⁸ Section II, *infra*.

⁹ WMNF Plan at iii.

¹⁰ Forest Service Handbook 1909.15 at 10.

¹¹ WMNF Plan at 1-21.

Table 1-03. Habitat Composition Objectives.

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

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

Similarly, the Plan sets age class objectives.¹²

Table 1-04. Age Class Objectives.

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

The Forest Plan is 18 years old this September.¹³ Besides its expiry date being long past—a violation of NFMA¹⁴—the Forest Plan’s objectives for age class and habitat type composition are grounded in an erroneous understanding of forest ecology management. Yet the Forest Service continues to draft Purpose and Need Statements that appear to be based on outdated age class and habitat type information. The public is left to assume that the Forest Service does not have current information on the habitat or age class compositions for the Lost River IRP, and thus is failing to accurately analyze which Forest Plan habitat type or age class objectives have already been met.¹⁵

As is, the Forest Plan’s age class goals are “grossly out of the natural range of variability,” and fail to consider basic ecological information about the WMNF.¹⁶ And as proposed, this Project’s Purpose and Need Statement could fail to accurately account for the *current* age class and habitat type composition. Indeed, the Plan anticipated that the achievement of the regeneration age class would be “a short-term objective that should be met during the first

¹² *Id.*

¹³ WMNF Plan at i.

¹⁴ 16 U.S.C. § 1604(f)(5); 36 C.F.R. § 219.7(a).

¹⁵ E-mail from Zack Porter, Exec. Dir., Standing Trees, to James Innes, Dist. Ranger, U.S. Forest Serv., and Johnida Dockens, Env’t Coordinator (June 16, 2022, 12:53 EST) (Exhibit 1); *see also* Standing Trees, *Comments of Standing Trees and the Wonalancet Preservation Association Regarding Draft Environmental Assessment and Preliminary Finding of No Significant Impact for Sandwich Vegetation Management Project #57392, Saco Ranger District, White Mountain National Forest*, Aug. 30, 2023, at 4 (hereinafter “Standing Trees Sandwich Comment”) (explaining that publishing age class and habitat type composition info is “common practice” for the Forest Service). To “cut down on bulk without impeding agency and public review of the [comment],” Standing Trees will be incorporating its Sandwich Comment and other recent prior submissions referenced *infra* into this comment by reference. 40 C.F.R. § 1501.12.

¹⁶ *See* Standing Trees Sandwich Comment at 6, 9 (explaining how the WMNF Plan objectives are “arbitrary, erroneous, and not rooted in past or current conditions.”).

decade of implementation.”¹⁷ To transparently comply with its own Forest Plan objectives,¹⁸ NEPA,¹⁹ and NFMA,²⁰ the Forest Service should update and share its habitat type and age class composition information before making further decisions regarding this Project.

Additionally, the Forest Service must incorporate up-to-date scientific analyses when considering any project’s purpose and need.²¹ In the Scoping Letter, the Forest Service only cites one source, and it is over a decade old.²² In other projects, despite being provided with a wealth of current, comprehensive, and scientific data from Standing Trees’s and others’ comments,²³ the Forest Service has completely insulated itself in its own library of dated scientific literature.²⁴ Moreover, the Forest Service is arbitrarily ignoring its own recent literature on the value of roadless areas and mature forests. For example, the Forest Service’s Climate Adaptation Plan, discussed later in this comment, states that “[m]any forests with old-growth characteristics have a combination of higher carbon density and biodiversity that contributes to both carbon storage and climate resilience.”²⁵ Even more recently, the Forest Service’s first-ever inventory of mature and old-growth (“MOG”) forests across the National Forest System (“NFS”) found that a significant percentage of the nation’s MOG forests are within the NFS, including a regionally significant concentration within the WMNF.²⁶ Thus, to comply with NEPA, the Forest Plan, and NFMA, the Forest Service must consider the best, most recent scientific evidence.²⁷

¹⁷ WMNF Plan at 1-21.

¹⁸ *Id.*

¹⁹ See 40 C.F.R. § 1506.6(a), (b) (“Agencies shall . . . [m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures” and “provide . . . the availability of environmental documents so as to inform those persons and agencies who may be interested or affected by their proposed actions.”).

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

²¹ 42 U.S.C. § 4332.102(A), (H).

²² Scoping Letter at 9–10.

²³ See e.g., Standing Trees Sandwich Comment (offering more than 40 sources of current scientific literature); Standing Trees, *Objection Pursuant to 36 C.F.R. § 218.8 to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest*, June 12, 2023 (same) (hereinafter “Standing Trees Peabody West Objection”); Standing Trees, *Objection Pursuant to 36 C.F.R. § 218.8 to Tarleton IRP, Pemigewasset Ranger District, White Mountain National Forest*, May 1, 2023 (same) (hereinafter “Standing Trees Lake Tarleton Objection”).

²⁴ See, e.g., U.S. FOREST SERV., *WMNF Plan Final Environmental Impact Statement: Literature Cited* 1-25 (citing studies as old as 1969 regarding silvicultural use); U.S. Forest Serv., *Peabody West Integrated Resource Project: Environmental Assessment and Finding of No Significant Impact* 31 (Apr. 27, 2023) (citing a study from 2009 regarding beech disease and a document from 2002 that does not seem to be publicly available regarding the Forest Service’s definition of “ecological approach” in the WMNF Plan).

²⁵ U.S. FOREST SERV., *Forest Service Climate Adaptation Plan* 13 (July 2022), https://www.usda.gov/sites/default/files/documents/4_NRE_FS_ClimateAdaptationPlan_2022.pdf.

²⁶ U.S. FOREST SERV., *Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management* (Apr. 2023), <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf>.

²⁷ 40 C.F.R. § 1500.1(b); WMNF Plan at 1-3; 36 C.F.R. § 219.3.

This value is enshrined in the Forest Service Handbook as well.²⁸ The Forest Service Handbook states:

Plan amendments are intended to be an adaptive management tool to keep plans current, effective, and relevant between required plan revisions (every 15 years). Amendments help Responsible Officials adapt an existing plan to new information and changed conditions. Maintaining plans through amendment also may reduce the workload for subsequent plan revisions.²⁹

Moreover, as raised in previous submissions,³⁰ the Purpose and Need Statement must incorporate the recent governing authorities that must inform it. To properly craft a Purpose and Need Statement, the Forest Service should integrate Executive Orders 14,072 and 14,008,³¹ which aim to foster forest conservation, enhance forest resilience, and assess mature forests. The Forest Service must integrate these Executive Orders into its Project development process.³²

B. The Purpose and Need Statement should not be so narrowly tailored that it eliminates all possible alternatives to the proposed action.

The Statement must accurately reflect the proposed action's purpose and need because it will inform the range of alternatives, including the proposed action.³³ 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.”³⁴ Similarly, the Forest Service Handbook states that “the effects of not taking action should provide a compelling reason for taking action and, therefore, should be consistent with the purpose and need for action.”³⁵

As Standing Trees makes clear in prior submissions,³⁶ the Forest Service must explore other forest management prescriptions that adhere to current conditions, adapt to new information and context, tier to updated executive direction, and comply with the Forest Plan. In the Lost River context—and in others—the effects of not acting fail to provide a compelling reason for taking action, based on current scientific understanding.

²⁸ U.S. Forest Serv., Forest Service Handbook: 1909.12 – Land Management Planning Handbook, Chapter 20: Land Management Plan 18 (2015) (hereinafter “Forest Service Handbook 1909.12”), https://www.fs.usda.gov/cgi-bin/Directives/get_dirs/fsh?1909.12 (navigate to “wo_1909.12_20_Land Management Plan.docx”).

²⁹ *Id.*

³⁰ Standing Trees Sandwich Comment at 44-45; Standing Trees Peabody West Objection at 35-37; Standing Trees Lake Tarleton Objection at 13-15.

³¹ Exec. Order No. 14,072, 87 Fed. Reg. 24,851 (Apr. 22, 2022); Exec. Order No. 14,008, 86 Fed. Reg. 7,619 (Jan. 27, 2021).

³² See Section III, *infra* (explaining why the Forest Service must comply with Executive Orders 14,072 and 14,008).

³³ See *League of Wilderness Defs.-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1069 (9th Cir. 2012).

³⁴ 42 U.S.C. § 4332.102(E); 40 C.F.R. § 1501.5(c)(2).

³⁵ Forest Service Handbook 1909.15, *National Environmental Policy Act Handbook, Chapter 40: Environmental Assessments and Related Documents* 3 (2010), https://www.fs.usda.gov/cgi-bin/Directives/get_dirs/fsh?1909.15 (navigate to “wo_1909.15_40_Environmental assessments and related documents.doc”).

³⁶ Standing Trees Sandwich Comment at 44-45; Standing Trees Peabody West Objection at 37-39; Standing Trees Lake Tarleton Objection at 15-20.

By properly framing the Purpose and Need Statement, the Forest Service can facilitate the preparation of an EIS, which must consider reasonable alternatives in comparative form based on the information and analyses presented.³⁷ NEPA requires as much because a project like the one proposed here plainly has significant impacts warranting full evaluation in an EIS.³⁸

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

NEPA requires federal agencies to prepare an EIS for projects that are likely to have significant effects.³⁹ In determining whether the effects of the proposed action are likely to be significant, agencies are to consider (1) both short- and long-term effects; (2) both beneficial and adverse effects; (3) effects on public health and safety; and (4) effects that would violate federal, state, tribal, or local law protecting the environment.⁴⁰ Agencies should also consider impacts to resources specific to the action area, such as “listed species and designated critical habitat under the [ESA].”⁴¹ Furthermore, impacts need not be widespread to be significant: “in the case of a site-specific action, significance would usually depend only upon the effects in the local area.”⁴² An EIS must “provide full and fair discussion of significant environmental impacts and . . . inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.”⁴³ EISs are meant to “serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.”⁴⁴

The Forest Service must complete an EIS for the proposed Lost River IRP because the Project is highly likely to have numerous significant environmental impacts due to the intensity, location, and cumulative impact of proposed activities, as well as its expansive scope and size. An Environmental Assessment (“EA”) simply will not be adequate in this case. The Scoping Letter describes planned silvicultural treatment on 1,880 acres of National Forest land, including 350 acres of clearcutting, and the establishment of a new, 18-site campground at Elbow Pond.⁴⁵ No information is given about the time needed to complete the Project, but the descriptions of season-specific timber harvesting, site preparation and release treatments, and shelterwood establishment cuts suggest that the Forest Service anticipates vegetation management activities continuing for up to ten years.⁴⁶ Given the considerations listed above, these impacts are certain to be significant within the meaning of NEPA.

Numerous negative impacts are foreseeable based on the Scoping Letter for the Lost River IRP, and these impacts must be analyzed in an EIS. First, logging would have a severe negative impact on the endangered NLEB if that species or its habitat are found in the proposed

³⁷ 40 C.F.R. § 1502.14.

³⁸ See Section II, *infra* (explaining why the size, scope, and significance of the Project will create significant impacts within the project area).

³⁹ *Id.* § 1501.3(a)(3).

⁴⁰ *Id.* § 1501.3(b)(2).

⁴¹ *Id.* § 1501.3(b)(1).

⁴² *Id.*

⁴³ *Id.* § 1502.1.

⁴⁴ *Id.* § 1502.2(g).

⁴⁵ Scoping Letter at 5, 11.

⁴⁶ *Id.* at 6, 8.

action area. Even-aged regeneration treatments would have the most obvious impact, as they would remove the mature forest stands that the NLEB uses for roosting and foraging, but group and single-tree selection would also have significant negative impacts if roosting trees are cut.⁴⁷ Other species, including both native and invasive species, are likely to be impacted as well. Second, logging in mature stands will contribute to the loss of climate and other ecological benefits of retaining older trees and allowing mature forest to develop into old-growth forest.⁴⁸ Third, because many silvicultural treatments are planned for areas that line Jackman Brook, Walker Brook, and other streams, the Project is likely to detrimentally impact water quality due to increased sediment runoff and decreased rain capture from treated lands. Fourth, the planned logging activities have the potential to negatively affect historic and cultural resources located within the proposed action area. The Forest Service must determine where such resources are found within the Project area and, if identified, must take steps to ensure that they are protected. For the above reasons, the size, scope, and significance of the Forest Service's proposed action all indicate the need for the Forest Service to prepare an EIS instead of an EA.

A. The EIS must discuss and evaluate a full range of reasonable alternatives to the proposed action, including the "No Action" Alternative.

Among its other elements, an EIS must evaluate "a reasonable range of alternatives to the proposed agency action . . . that are technically and economically feasible, and meet the purpose and need of the proposal."⁴⁹ The statement must discuss foreseeable positive and negative impacts of each alternative, including the impacts of taking no action, so that members of the public can make informed comparisons among the possible alternatives.⁵⁰ It is also incumbent upon federal agencies to "[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources."⁵¹ Further, agencies "shall not commit resources prejudicing selection of alternatives before making a final decision" about which alternative to pursue.⁵²

Given the breadth of the purpose for which the Lost River IRP is contemplated, a wide range of reasonable alternatives should be considered. The primary purpose stated in the Scoping Letter is "to advance Forest Plan goals, objectives, and desired conditions for vegetation, wildlife, recreation, and other resources as established in the [Forest Plan]," using "an ecological approach to provide both healthy ecosystems and a sustainable yield of high quality forest

⁴⁷ U.S. Fish & Wildlife Serv., *Species Status Assessment for the Northern long-eared bat (Myotis septentrionalis) Version 1.2* 18 (Aug. 2022) (hereinafter *Species Status Assessment*), <https://www.fws.gov/media/species-status-assessment-report-northern-long-eared-bat>.

⁴⁸ 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) (hereinafter "Keith et al.") (Exhibit 2); Luyssaert et al., *Old-growth Forests as Global Carbon Sinks*, 455 NATURE 213 (2008) (hereinafter "Luyssaert et al.") (Exhibit 3); Leverett et al., *Older Eastern White Pine Trees and Stands Accumulate Carbon for Many Decades and Maximize Cumulative Carbon*, 4 FRONTIERS FOR GLOBAL CHANGE 1 (May 2021) (hereinafter "Leverett et al.") (Exhibit 4); Thom et al., *The Climate Sensitivity of Carbon, Timber, and Species Richness Covaries with Forest Age in Boreal-Temperate North America*, GLOB. CHANGE BIOLOGY (2019) (hereinafter "Thom et al.") (Exhibit 5).

⁴⁹ 42 U.S.C. § 4332(C)(iii).

⁵⁰ 40 C.F.R. §§ 1502.14, 1502.1.

⁵¹ *Id.* § 1501.2(b)(3); see also 42 U.S.C. § 4332(C)(iii) (saying the same).

⁵² 40 C.F.R. §§ 1502.2(f), 1506.1.

products.”⁵³ The Scoping Letter also cites the Forest Plan’s instruction to “use sustainable ecosystem management practices to provide a diversity of habitats across the WMNF.”⁵⁴ There is no reason to believe that such broad goals can only be accomplished through the specific distribution of silvicultural treatments proposed in the Scoping Letter. The sheer number of different vegetation management practices proposed for different sites within the Project area demonstrates that even if logging is needed—which, to be clear, Standing Trees asserts it is not—vegetation management could be applied in a variety of ways to achieve the desired conditions. This variability necessarily implies that several reasonable alternatives exist, and the Forest Service should analyze the range of options in an EIS.

1. The Forest Service must consider a No Action Alternative.

Analyzing a robust “No Action Alternative” is an essential element of any EA or EIS.⁵⁵ One of the most critical purposes of a No Action Alternative is to establish a baseline against which the proposed action can be measured.⁵⁶ As we have noted, the Forest Service has neglected this step and failed to properly analyze the No Action Alternative for several currently planned projects.⁵⁷ The Forest Service should take this opportunity to explain the likely impacts of a No Action Alternative so that it can more accurately measure the impacts of the proposed Lost River IRP.

NEPA requires agencies to consider both the detriments and benefits of proposed projects, which includes considering the benefits of reasonable alternatives as well. There are numerous benefits of *not* moving ahead with the proposed action (i.e., the No Action Alternative). These include, but are not limited to: compliance with EO 14,072; climate benefits of retaining older, mature trees; habitat benefits for the endangered NLEB and other species that rely on mature, old, or interior forests or are sensitive to harvest impacts; avoidance of potential detrimental impacts to water quality due to runoff, sedimentation, and potential herbicide contamination; avoidance of loss or damage to historic and cultural resources located within the proposed action area; avoidance of the introduction of invasive species; avoidance of a potential violation of Forest Plan directives to maintain very high visual quality standards for MA 8.3 (Appalachian Trail) lands; and avoidance of visual and noise impacts, among many others. A No Action Alternative should also carefully detail how the full range of habitats required by native species can be facilitated within the Project area by simply allowing natural processes and forest aging to create habitat diversity and complexity.

⁵³ Scoping Letter at 2.

⁵⁴ *Id.*

⁵⁵ 40 C.F.R. § 1502.14(c).

⁵⁶ *Biodiversity Conservation Alliance v. U.S. Forest Serv.*, 765 F.3d 1264, 1269 (10th Cir. 2014) (“NEPA analysis uses a no-action alternative as a baseline for measuring the effects of the proposed action.”); *Ctr. for Biological Diversity v. U.S. DOI*, 623 F.3d 633, 642 (9th Cir. 2010) (“A no action alternative in an EIS allows policymakers and the public to compare the environmental consequences of the status quo to the consequences of the proposed action.”).

⁵⁷ Standing Trees Sandwich Comment at 45; Standing Trees Peabody West Objection at 40; Standing Trees Lake Tarleton Objection at 15-16.

2. *The Forest Service must analyze a range of additional reasonable alternatives.*

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

- Avoiding all mature and old forest as defined in Forest Plan Appendix D, Age Class Definitions by Habitat Type, to comply with EO 14,072 and to reduce risk of harm to NLEB habitat;
- Avoiding all impacts to Forest Plan Revision IRAs and Roadless Area Conservation Rule (“RACR”) IRAs;
- Increasing the size of the buffer between logging activities and watercourses, waterbodies, and wetlands;
- Maintaining primitive, dispersed recreation opportunities in the vicinity of Elbow Pond;
- Decommissioning and recontouring all roads within Forest Plan Revision IRAs and RACR IRAs;
- Augmenting beaver populations to expand wetland and complex early seral habitats;
- Replacing undersized culverts and bridges within the minimum extent of necessary road infrastructure to increase resilience to anticipated flooding events;
- Restricting logging activities to NLEB hibernation periods;
- Precluding logging within the average migration distance of NLEB from all hibernacula; and
- Requiring surveys for NLEB and other endangered species prior to proceeding with each harvest unit for this Project.

B. The EIS must take a “hard look” at numerous environmental resources within the Project area.

Under NEPA, the Forest Service must take a “hard look” at the environmental impacts of the planned action.⁵⁸ This requirement “places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action.”⁵⁹ The purpose of this process is to ensure that the final decisions concerning a project are “fully informed and well-considered.”⁶⁰ The discussion below identifies several kinds of significant impacts that are likely to occur if the Lost River IRP proceeds as described. The Forest Service should analyze these impacts, along with planned mitigation measures,⁶¹ in an EIS.

⁵⁸ *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989).

⁵⁹ *Mass. v. U.S. Nuclear Regul. Comm’n*, 708 F.3d 63, 67 (1st Cir. 2013).

⁶⁰ *Dubois v. U.S. Dep’t of Agric.*, 102 F.3d 1273, 1284 (1st Cir. 1996).

⁶¹ *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 ‘actionforcing’ [*sic*] function of NEPA.”)

1. *Impacts to Sensitive Species*

The Forest Service must analyze potential impacts to threatened, endangered, and sensitive (“TES”) species. The Scoping Letter does not indicate whether the Forest Service knows of the existence of any TES species in the Project area. The Forest Service must ascertain whether TES species are likely to be present and must make this information available to the public.

Of particular concern is the NLEB, which was listed as endangered on November 30, 2022.⁶² The entire state of New Hampshire is within the NLEB’s range.⁶³ However, the U.S. Fish and Wildlife Service (“USFWS”) indicated in a Biological Opinion (“BiOp”) dated March 31, 2023 that the agency is “uncertain where the NLEB occurs on the landscape outside of known locations.”⁶⁴ In order to take a “hard look” at likely impacts of the Project on sensitive species such as the NLEB, the Forest Service must first determine whether such species exist within the Project area.

The BiOp further states that habitat loss is a primary factor threatening the NLEB’s viability and exacerbating the devastating impacts of white-nose syndrome.⁶⁵ As Standing Trees has explained in previous comments,⁶⁶ NLEB habitat requirements are the opposite of the type of habitat that will be generated from the Lost River IRP if the Project proceeds as proposed. According to the USFWS Species Status Assessment for the NLEB, dated March 22, 2022, the bat depends on mature and old forests for roosting and foraging.⁶⁷ Its preferred roosting habitat is large-diameter live or dead trees of a variety of species, with exfoliating bark, cavities, or crevices. Additionally, “mature forests are an important habitat type for foraging NLEBs[.]” and “most foraging occurs . . . under the canopy . . . on forested hillsides and ridges.”⁶⁸ Furthermore, NLEBs “seem to prefer intact mixed-type forests . . . for forage and travel rather than fragmented habitat or areas that have been clear cut.”⁶⁹ Given that the Lost River IRP would create more early-successional habitat and would potentially remove mature or maturing stands that serve as NLEB habitat,⁷⁰ the Forest Service must fully analyze the likely impacts of these actions to NLEB populations and declare the steps it plans to take to mitigate these impacts.

⁶² 87 Fed. Reg. 73,488 (Nov. 30, 2022).

⁶³ USFWS, FWS/R3/ES-ARD, *Biological Opinion: Effects to the Northern Long-Eared Bat from Planned and Ongoing Activities Being Implemented in the Eastern and Southern Regions of the U.S. Forest Service* 8 (Mar. 30, 2023) (available in Tarleton IRP project file at filename Biological Opinion NLEB Reinitiation Forest Service R8 and R9 Final.pdf) (hereinafter “NLEB BiOp”).

⁶⁴ Letter from Karen Herrington, Acting Asst. Reg’l Director for Ecological Servs., Region 3 USFWS, to Gina Owens, Reg’l Forester Eastern Region U.S. Forest Service 2 (Mar. 31, 2023) (re: NLEB BiOp) (in Tarleton IRP project file at filename Biological Opinion NLEB Reinitiation Forest Service R8 and R9 Final.pdf)

⁶⁵ NLEB BiOp at 19.

⁶⁶ Standing Trees Sandwich Comment at 22; Standing Trees Peabody West Objection at 17–18; Standing Trees Lake Tarleton Objection at 21.

⁶⁷ *Species Status Assessment* at 18.

⁶⁸ *Id.*

⁶⁹ *Id.* at 18–19.

⁷⁰ Scoping Letter at 6 (“Compared to other silvicultural treatments, clearcutting would produce the greatest amount of early-successional habitat.”)

In addition, the Forest Service should consider impacts to other TES species that may exist within the Project area. For example, the Canada lynx is federally listed as threatened,⁷¹ and it is listed as endangered by the state of New Hampshire.⁷² The Canada lynx's habitat consists of boreal forests, and some higher-elevation areas within the WMNF are within the lynx's known range.⁷³ 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."⁷⁴ To ensure that the Lost River IRP does not negatively impact this species, the Forest Service must determine whether any part of the Project area lies within or near the lynx's range. If so, the Forest Service must analyze the likely impacts of the Project activities on the lynx and specify mitigation measures that the Forest Service will take to minimize any such impacts.

2. Wildlife

The Forest Service must consider the impacts that the Lost River IRP will have on other species of wildlife, particularly given the important role that mature and old forests play in this delicate ecosystem. As Standing Trees has pointed out in previous comments,⁷⁵ the ecosystems that the Forest Service calls "old forests" are actually northern New England's natural forests. As such, much of New Hampshire's community of life evolved over millennia within these remarkable original forests. A combination of overhunting and habitat loss following European settlement led to the disappearance of wide-ranging carnivores such as cougars, wolves, and wolverines. Elk and caribou met a similar fate. Some species we might take for granted today, such as bear, moose, beaver, and loons, were on the brink of extirpation only a short while ago. Lynx, NLEB, and pine marten currently teeter on the edge. Salmon, once prolific in the Connecticut River system, now struggle to naturally reproduce. Many of New Hampshire's imperiled bird species are adapted to interior forests and reliant upon complex forest structure for their survival, including standing snags and large living trees.⁷⁶ Indeed, the availability of dead and dying trees and downed wood is critical for the health of many species, from bats to pine marten to invertebrates.⁷⁷

Mature, unfragmented interior forests make ideal habitat for a variety of native and imperiled species. However, this type of forest is rare in New England overall. This makes the WMNF an important concentration of such habitat within New England. When this habitat is fragmented or degraded through activities such as logging, these species experience increased

⁷¹ USFWS, *Canada Lynx* (*Lynx canadensis*), Environmental Conservation Online System (ECOS) (last updated Aug. 4, 2022), <https://ecos.fws.gov/ecp/species/3652> (hereinafter "ECOS").

⁷² N.H. Fish and Game Dep't., *Endangered and Threatened Wildlife of NH*, <https://www.wildlife.nh.gov/wildlife-and-habitat/nongame-and-endangered-species/endangered-and-threatened-wildlife-nh> (last visited Oct. 5, 2023).

⁷³ ECOS.

⁷⁴ *Id.*

⁷⁵ Standing Trees Sandwich Comment at 35; Standing Trees Peabody West Objection at 21; Standing Trees Lake Tarleton Objection at 45.

⁷⁶ Robert A. Askins, *The Critical Importance of Large Expanses of Continuous Forest for Bird Conservation*, 25 BIOLOGY FACULTY PUBLICATIONS 1, 25 (2015) (Exhibit 6).

⁷⁷ Thorn et al., *The Living Dead: Acknowledging Life After Tree Death to Stop Forest Degradation*, 18 FRONTIERS ECOL. & ENV'T 505 (2020) (Exhibit 7); Evans and Mortelliti, *Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher*, 13 ECOSPHERE 1 (Nov. 24, 2021) (Exhibit 8).

threats from interactions with humans, predation, changes in microclimates, the spread of invasive species and ticks, and other fragmentation and edge effects. The Forest Service must analyze how the fragmentation of habitat associated with the Lost River IRP will impact wildlife, including the species discussed here and others.

3. *Vegetation and Forest Health*

As established above, elsewhere in this comment, and in other submissions made by Standing Trees,⁷⁸ the likely effects of the Lost River IRP will be significant and will require the Forest Service to conduct an EIS. The Lost River IRP seeks to clearcut 350 acres.⁷⁹ As proposed, the Lost River IRP is on a path to repeat NEPA violations regarding: (1) lacking information on stand age, habitat type, and species composition;⁸⁰ (2) failing to address current scientific understanding of forest health;⁸¹ (3) failing to address recent executive orders on forest protection;⁸² and (4) failing to show compliance with the Forest Plan.⁸³

As proposed, the Lost River IRP will run headlong into the Forest Plan's standards and guidelines. Standard S-3 of the Forest Plan's Forest-Wide Management Direction states that "[t]imber harvest is prohibited in old growth forest."⁸⁴ Further, Guideline G-1 states that "[o]utstanding natural communities should be conserved."⁸⁵ The Forest Plan also states that "[n]o harvest will occur in stands identified to provide old forest habitat."⁸⁶ The Forest Plan defines old forest habitat as: "[d]esired habitat conditions start with those for mature forest and can include greater size, decadence, structural complexity, etc."⁸⁷ Certainly, these attributes could appear in stands that are otherwise classified as "mature" according to the Forest Plan's Appendix D: Age Class Definitions by Habitat Type. Yet there has been no analysis of whether the Project will protect such stands, as required by the Forest Plan⁸⁸—indeed, the Project targets mature forests.

⁷⁸ Standing Trees Sandwich Comment at 19-20.

⁷⁹ Scoping Letter at 5.

⁸⁰ *E.g.*, Section I., *infra*; Standing Trees Sandwich Comment at 4-11.

⁸¹ *E.g.*, Section III(A)(2), *infra*; Standing Trees Sandwich Comment at 12-16.

⁸² *E.g.*, Section VIII(B), *infra*; Standing Trees Sandwich Comment at 17-19.

⁸³ *See also* Standing Trees Sandwich Comment at 19-20 (explaining the inconsistencies between the Sandwich VMP and the WMNF Plan standards and objectives).

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

⁸⁵ WMNF Plan at 2-13.

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

⁸⁷ *Id.*

⁸⁸ *Id.*

Finally, the Plan does not endorse any even-aged management in mature or old stands.⁸⁹ Despite this instruction to avoid even-aged management in mature forest habitat, the Project proposes extensive even-aged management, likely within mature and/or old stands. Contrary to the Forest Plan, proposed management activities within the Project area will degrade habitat quality.

Because the Forest Service has not provided up-to-date information regarding stand ages, it is impossible for the public to discern how much of the Project area is mature or old forest. To rectify this, and to comply with the Forest Plan standards and guidelines, the Forest Service should include in an EIS comprehensive information and maps regarding the stand ages in the Project area, and it must take its required “hard look” at the significant impacts the Lost River IRP could have on vegetation and forest health.

4. *Climate Impacts*

The Forest Service must discuss the impacts of the proposed Project on the climate. This discussion must include both carbon emissions generated by the Project activities *and* impacts of the proposed silvicultural treatments on carbon storage. CEQ guidance released on January 9, 2023 requires agencies to “quantify proposed actions’ [greenhouse gas (“GHG”)] emissions, place GHG emissions in appropriate context and disclose relevant GHG emissions and relevant climate impacts, and identify alternatives and mitigation measures to avoid or reduce GHG emissions.”⁹⁰ Agency decisions should be based on the best available science and account for the urgency of the climate crisis.⁹¹ The guidance clarifies that “NEPA requires more than a statement that emissions from a proposed Federal action or its alternatives represent only a small fraction of global or domestic emissions.”⁹²

While New Hampshire may be a relatively small state, its temperate deciduous forests are among the planet’s most effective carbon sinks. The WMNF contains some of the oldest and most carbon-dense ecosystems in New England. While there is a common misconception that young forests are better than old forests at removing carbon, strong scientific evidence indicates that carbon storage and sequestration are maximized in un-logged stands in northern New England.⁹³ Old forests store more carbon than young forests, and old forests continue to accumulate carbon over time.⁹⁴ The rate of carbon sequestration actually increases as trees age,⁹⁵ and this process is multiplied as entire stands age.⁹⁶ As Standing Trees has pointed out in

⁸⁹ Forest Plan Abbreviations, Acronyms, and Glossary at 18 (“Depending on site conditions, thinning and uneven-aged harvest methods can be used in this habitat without negatively impacting habitat quality. Some uneven-aged harvest may enhance vegetative and structural diversity.”)

⁹⁰ CEQ, *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, 88 Fed. Reg. 1196 (Jan. 9, 2023).

⁹¹ *Id.*

⁹² *Id.* at 1201.

⁹³ Keeton et al., *Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States*, 57 FOREST SCI. (Jan. 18, 2011) (Exhibit 9).

⁹⁴ Keith et al., at 11635; Luyssaert et al., at 213; Leverett et al., at 1; Thom et al.

⁹⁵ Stephenson et al., *Rate of Tree Carbon Accumulation Increases Continuously with Tree Size*, 507 NATURE 90 (Jan. 2014) (Exhibit 10).

⁹⁶ Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, FOREST ECOLOGY & MGMT. 544 (May 2023) (Exhibit 11).

previous comments,⁹⁷ recent studies show that among land uses in New England, timber harvest has the greatest impact on aboveground carbon storage.⁹⁸ Timber harvesting in New England has been found to have a larger effect on aboveground carbon storage than forest conversion to non-forest uses.⁹⁹ The Forest Service must take the most up-to-date science on carbon storage, including the scientific references provided here and in Standing Trees's prior submissions, into account when analyzing this Project's climate impacts.

5. *Water Quality Impacts*

The Forest Service should analyze potential impacts to water quality caused by logging, road construction, creation of skid trails, soil compaction from logging activities, and campsite construction. Up-to-date, site-specific analysis is necessary to understand the impacts that the Lost River IRP will have on Elbow Pond, Jackman Brook, Walker Brook, and the watershed in general. As one recent article pointed out, the process of cutting and removing trees changes "virtually all aspects of a forest's water and sediment budget."¹⁰⁰ Soil in logged areas is exposed to erosion, increasing the likelihood that sediment will accumulate in waterways.¹⁰¹ Such soil disturbances are "intrinsic to forest timber harvest and fuel reduction activities," though actual impacts vary based on such factors as the specific logging methods used, the intensity of harvest, and the unique features of the landscape.¹⁰²

The Scoping Letter does not discuss projected impacts to water quality or plans to mitigate such impacts. It does, however, state that "[a]dditional design elements may be developed during the environmental analysis process to ensure consistency with forest plan direction and to minimize or avoid potential resource impacts."¹⁰³ To comply with NEPA, the Forest Service should explicitly identify potential site-specific impacts to water quality and proposed mitigation measures in an EIS so that the public can provide meaningful input before work on the Project begins.¹⁰⁴

6. *Scenic Values*

To comply with the Forest Plan, the Forest Service must ensure that its management activities are consistent with the assigned Scenic Integrity Objectives.¹⁰⁵ The Forest Service did not establish that it will assess the scenery impacts from the proposed Lost River Overlook in Figure 5 or anywhere else in the Scoping Letter.¹⁰⁶ If the Forest Service is proposing to create the

⁹⁷ Standing Trees Sandwich Comment at 26; Standing Trees Peabody West Objection at 21; Standing Trees Lake Tarleton Objection at 26.

⁹⁸ Duveneck and Thompson, *Social and Biophysical Determinations of Future Forest Conditions in New England: Effects of a Modern Land-use Regime* 55 GLOBAL ENV'T CHANGE 115 (March 2019) (Exhibit 12).

⁹⁹ *Id.*

¹⁰⁰ Safeeq et al., *Disentangling Effects of Forest Harvest on Long-Term Hydrologic and Sediment Dynamics, Western Cascades, Oregon*, J. HYDROLOGY 580 (2020) (Exhibit 13).

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ Scoping Letter at 11.

¹⁰⁴ 40 C.F.R. § 1502.14(e) (requiring agencies to include appropriate mitigation measures within the discussion of alternatives in an EIS).

¹⁰⁵ WMNF Plan at 1-16, 2-26-27, 3-6-7.

¹⁰⁶ WMNF Plan at 3-7-8.

Lost River Overlook, it should prepare a Scenery Specialist Report that considers the long-lasting, significant impact of clearcutting on the viewshed's natural surroundings.

In the Forest Service's Scenery Specialist Report, the agency should indicate the amount of acreage within the view of the overlook that would be impacted by the Lost River IRP's proposed activities. To comply with the Forest Plan, and therefore with NFMA, the Forest Service must provide an accurate analysis of the proposed Lost River Overlook.

Considering that the vast amount of vegetation management in the Lost River IRP consists of clearing trees, this Project will likely have a significant effect on scenic values, including to the high scenic integrity of the Appalachian Trail corridor. To avoid failing to satisfy NEPA's "hard look" analysis, the Forest Service must conduct an EIS.

7. Roadless Area Values and Characteristics

Roadless areas are vital sources of water, biodiversity, and recreational solitude, and consequently the Forest Service must pay special consideration to these areas as part of its environmental analyses under NEPA. In 2001, the Forest Service acknowledged the *inherent* value of roadless areas by promulgating the RACR.¹⁰⁷ The Forest Service was right to recognize the many critical benefits of protecting roadless areas, including their contributions to high quality soil, water, and air; their status as sources of public drinking water; their value for flood and drought mitigation; their benefits for biodiversity, in particular as habitats for TES species; and their "natural-appearing landscapes" with high scenic quality.¹⁰⁸

Unfortunately, the Forest Service continues to draw a distinction between *RACR IRAs* (i.e., those inventoried by 2001 and consequently protected from road construction, reconstruction, and most timber management by the RACR) and *Forest Plan IRAs* (i.e., those areas inventoried by the Forest Service after RACR's promulgation and therefore afforded such protections only at the discretion of forest planning).¹⁰⁹ To that end, the Forest Service arbitrarily takes a two-class approach to management of IRAs in a National Forest. Rather than affording a base level of protection commensurate with the RACR for all IRAs within a National Forest, the Forest Service instead treats Forest Plan IRAs as second-class citizens that are only to be protected if deemed worthy of a wilderness recommendation during the Forest Plan revision process. Regrettably, those areas not recommended for wilderness designation are often allocated to management areas ("MAs") that permit activities that degrade roadless area values.¹¹⁰ Whether they are RACR or Forest Plan IRAs, roadless areas merit protection and special consideration, including under NEPA, not merely because they contain the potential for eventual wilderness designation, but also because of their inherent value as watersheds and biodiversity hotspots.

¹⁰⁷ 36 C.F.R. § 294.

¹⁰⁸ *Id.* at 3245.

¹⁰⁹ See generally, WMNF Plan, *Chapter 3: Management Area Direction* (describing MAs that, although legally distinct from IRAs inventoried under RACR or congressionally designated wilderness, largely derive their value from the same characteristics that make these areas so valuable).

¹¹⁰ See, e.g., Standing Trees Sandwich Comment at 33–34 (highlighting the Forest Service's failure to consider the proposed project's impacts on roadless area values); Standing Trees Peabody West Objection at 17 (describing the proposed project's failure to sufficiently consider impacts to NLEB habitat, including in roadless areas); Standing Trees Lake Tarleton Objection at 46 (summarizing the potential negative effects of the proposed project's planned road reconstruction).

While the Forest Service may not necessarily be legally bound to treat these post-2001 IRAs the *same* as pre-2001 IRAs, the Forest Service’s ongoing distinction between such conceptually and physically similar areas borders on the arbitrary and has little relevance to the NEPA analysis required here.

In the case of the Lost River IRP, Standing Trees believes that logging has been proposed in at least two Forest Plan IRAs.¹¹¹ That said, Standing Trees remains encouraged by some of the ways in which the Scoping Letter demonstrates the Forest Service’s apparent initial commitment to protecting RACR boundaries and values by omitting logging in RACR IRAs and by proposing road decommissioning in some of these areas as well. Standing Trees hopes that the Forest Service will show in future analyses how it plans to remain true to two of its Transportation Objectives under the 2005 Forest Plan: (1) to “[c]onstruct only those roads necessary to meet the management objectives of the Forest Plan,” and (2) to [d]ecommission all . . . roads not necessary to meet the management objectives of the Forest Plan as funding is available.”¹¹²

Given the likely overlap between proposed treatments and IRAs, as well as the Forest Service’s overarching obligation to consider any potentially significant impacts resulting from their proposed actions, the Forest Service should (1) *acknowledge and display to the public any overlap* between proposed actions and RACR IRAs or Forest Plan IRAs; (2) *acknowledge any significant impacts* to such areas likely to result from such actions; and (3) *develop an alternative proposal* that would avoid, or at least significantly mitigate, such impacts.

As the Forest Service itself acknowledged in 2001,¹¹³ these areas are precious not merely because of their potential for future wilderness designation, but also because roadless areas—regardless of when they were inventoried—possess unique characteristics all their own.¹¹⁴ These characteristics include contributions to water quality (“[W]atershed conditions tend to be best in areas protected from road construction and development.”);¹¹⁵ suitable habitat for resident

¹¹¹ Although difficult to determine conclusively without a single, integrated map that reflects the overlay between proposed timber harvests and roadless areas, Standing Trees suspects that there are at least three Forest Plan IRAs in the general vicinity of the proposed project area: Jobildunk IRA, North Carr Mountain IRA, and Mt. Wolf-Gordon Pond IRA. By way of comparing the IRA map with the project maps, it appears that the Forest Service is proposing to log in at least two of these IRAs: Jobildunk and North Carr Mountain. Scoping Letter at 15.

¹¹² WMNF Plan at 1-17.

¹¹³ See 36 C.F.R. § 294 at 3245 (“[IRAs] provide clean drinking water and function as biological strongholds for populations of [TES, and] . . . provide large, relatively undisturbed landscapes that are important to biological diversity and the long-term survival of many at-risk species. [They] provide opportunities for dispersed outdoor recreation . . . and provide reference areas for study and research.”).

¹¹⁴ See *id.* at 3247 (“Promulgating this rule is necessary to protect *the social and ecological values and characteristics of [IRAs]* from road construction and reconstruction and certain timber harvesting activities.”) (emphasis added).

¹¹⁵ MIKE ANDERSON ET AL., WILDERNESS SOC’Y, WATERSHED HEALTH IN WILDERNESS, ROADLESS, AND ROADED AREAS OF THE NATIONAL FOREST SYSTEM 9 (2015) (“Watersheds in [IRAs,] . . . protected from road building and logging by the [RACR,] . . . are considerably healthier than watersheds in the managed landscape.”) (Exhibit 14); see also Dominick A. DellaSala et al., *Roadless Areas and Clean Water*, J. SOIL & WATER CONSERVATION, May/June 2011, at 78A, 79A (emphasizing that “national forests provide about 15% of the nation’s runoff” and that “IRAs make up 661 of the 914 national forest watersheds”) (Exhibit 15).

species of conservation concern (“SCCs”);¹¹⁶ a capacity as carbon sinks exceeding that of “degraded” forests”;¹¹⁷ social benefits, particularly the opportunity for solitary, primitive-type recreation;¹¹⁸ and aesthetic attributes, of which the once-pristine WMNF contains too many to count. Because of the uniqueness of these areas, it is imperative that the Forest Service carefully considers the project’s proposed impacts on these areas’ defining characteristics if the Service is to comply with its obligations under NEPA to meaningfully involve the public.

8. Cumulative Impacts

NEPA requires the Forest Service to consider the effects or impacts of the Lost River IRP in its analysis.¹¹⁹ Effects or impacts are defined as “changes to the human environment from the proposed action or alternatives that are reasonably foreseeable . . .” and may include “ecological, aesthetic, historic, cultural, economic . . . social, or health effects . . .”.¹²⁰ An effects analysis requires that the agency define and apply a consistent geographic scope in which to analyze cumulative effects.¹²¹ 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.”¹²²

The WMNF’s “Projects” web page lists 22 current or recent projects, including several near the Lost River IRP location (including Long Pond Dam Repair and Maintenance; Tarleton IRP; Elbow Pond Snowmobile Trail Relocation; and Loon Mountain Bike Trails Phase 3). The Forest Service must consider all of the effects or impacts of the Lost River IRP in the context of these numerous other projects that are reasonably foreseeable. For sensitive species such as the NLEB, whose potential habitat is decreased with every project that reduces the amount of mature forest available for roosting and foraging, the proper scope of cumulative impact analysis is the WMNF itself. For other resource categories, the appropriate scope may be a smaller area. Whether the geographic scope of analysis is drawn broadly or more narrowly, though, the Forest Service must acknowledge the fact that the Lost River IRP would not be taking place in a vacuum. This Project must be viewed in light of other recent and planned projects in order to get a true picture of the impacts to forest resources.

¹¹⁶ See Mathew S. Dietz et al., *The Importance of U.S. National Forest Roadless Areas for Vulnerable Wildlife Species*, GLOBAL ECOLOGY & CONSERVATION, Nov. 2021, at 1 (concluding that “well over half” of wildlife Species of Conservation Concerns have suitable habitat in IRAs and that “every IRA provides habitat for at least two wildlife SCCs . . .”) (Exhibit 16).

¹¹⁷ James E.M. Watson et al., *The Exceptional Value of Intact Forest Ecosystems*, NATURE: ECOLOGY & EVOLUTION, Feb. 2018 (“Intact forests store more carbon than logged, degraded or planted forests in ecologically comparable locations.”) (Exhibit 17); McKinley J. Talty et al., *Conservation Value of National Forest Roadless Areas*, CONSERVATION SCI. & PRAC., Sept. 2020, at 1, 11 (“IRAs add disproportionately . . . to the carbon captured by existing protected areas.”) (hereinafter “Talty et al.”) (Exhibit 18).

¹¹⁸ See, e.g., Talty et al., at 4-5 (explaining that IRAs contain some of the “wildest” places in the contiguous U.S. based on the extent to which they had been modified by humans).

¹¹⁹ 40 C.F.R. § 1508.1(g), (1)-(3).

¹²⁰ *Id.* § 1508.1(g).

¹²¹ *LOWD/BMBP v. Connaughton*, 2014 WL 6977611, at 9-11 (D. Or. Dec. 9, 2014).

¹²² See *id.* at 9 (citing *Native Ecosystems Council v. Dombeck*, 304 F. 3d 886, 902 (9th Cir. 2002)).

III. The Forest Service Must Meaningfully Involve the Public in Its Processes.

The Forest Service must make diligent efforts to involve the public in preparing and implementing their NEPA procedures.¹²³ It must provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents that will inform those interested or affected persons and agencies.¹²⁴ Further, it must hold or sponsor public hearings, meetings, or other opportunities for public involvement whenever appropriate.¹²⁵ An EA must “provide sufficient evidence and analysis . . . to determine whether to prepare either an EIS or a FONSI.”¹²⁶

Within the context of the Lost River IRP, the Forest Service is poised to repeat the same mistakes of short-circuiting public involvement as they have in previous Projects.¹²⁷ In the recent past, the Forest Service has failed to (1) adequately involve the public, (2) provide sufficient evidence to support projects’ purpose and need statements and to demonstrate compliance with the Forest Plan and other statutes and regulations, (3) meaningfully respond to current scientific evidence offered by Standing Trees and others,¹²⁸ and (4) obtain up-to-date information regarding the NLEB. By considering these factors here, the Forest Service will be better able to comply with NEPA, NFMA, the ESA, and other requirements applicable to its consideration of the Lost River IRP. Indeed, the Forest Service will be able to facilitate the public’s meaningful involvement in the process.

Moreover, the Forest Service should consider hosting more public meetings in the future to give the interested or affected persons and entities the meaningful opportunity to engage with the Project development process. To fulfill its duty under NEPA to solicit public participation,¹²⁹ the Forest Service should consider improving upon its public participation practices.

A. The Forest Service’s public involvement at the Lost River IRP Pre-Scoping Meeting was inadequate.

The May 2023 pre-scoping meeting in Lincoln, New Hampshire presented the public with nearly a blank canvas from which to form questions, positions, and opinions. And yet the public’s understanding of landscape context, applicable laws and regulations, and conditions on the ground and across the WMNF is critical to facilitating the NEPA public participation process. A project’s purpose and need cannot be formed in a vacuum, and neither should the public’s understanding.

Standing Trees’s Executive Director, Zack Porter, attended this open house and was disappointed to see that the maps used to prompt conversations with Forest Service staff and to

¹²³ 40 C.F.R. § 1506.6(a).

¹²⁴ *Id.* § 1506.6(b).

¹²⁵ *Id.* § 1506.6(c).

¹²⁶ 36 C.F.R. § 220.7(b)(3)(i).

¹²⁷ Standing Trees Sandwich Comment at 57-59; Standing Trees Peabody West Objection at 48-50; Standing Trees Lake Tarleton Objection at 9-13.

¹²⁸ See UNITED STATES FOREST SERVICE, *Response from Forest Service: Lake Tarleton Long Form* (failing to adequately—or even accurately, at some points—respond to meaningful submissions by Standing Trees and other commenters) (Exhibit 19).

¹²⁹ See 40 C.F.R. § 1506.6(c).

inform comments lacked essential data, including Forest Plan MA boundaries, IRA boundaries, existing roads and trails, natural communities, physical and topographical features, and other contexts. This follows a trend that we have observed with other recent WMNF projects.

B. The Forest Service must provide supporting documentation to allow adequate, meaningful public comment.

In direct contravention of NEPA, the Forest Service has repeatedly failed to “provide public notice of . . . the availability of environmental documents,”¹³⁰ which are intended to inform the public’s ability to meaningfully comment, propose alternatives, and object, if necessary, to Forest Service integrated resource and vegetation management projects. The Service should not repeat these failings here.

1. Detailed information on stand age, species composition, and compliance with Forest Plan and other laws and regulations

The Lost River IRP, citing the Forest Plan, states that “[a]n analysis of the current habitat conditions indicates that the Lost River and Franconia Notch HMUs are not meeting the MA 2.1 habitat composition and age class objectives ([F]orest [P]lan, pp. 1-20 to 1-21).”¹³¹ Yet the Scoping Letter and the Project webpage both fail to provide the public with that analysis to ensure meaningful public comment. Without providing an adequate stand age map, the Scoping Letter claims that the Lost River and Franconia Notch HMUs do not meet current habitat composition and age class objectives. Previous submissions have outlined this problem in detail.¹³² The Forest Service has a history of making similarly unsupported assertions.

Similarly, the Forest Service fails to clarify if—in the 18 years since the signing of the Forest Plan—age class objectives for regeneration and young age classes have been met, even though the Forest Service anticipated these objectives to be met by year ten of the Forest Plan.¹³³ Standing Trees’s Executive Director has requested stand age information before, and the Forest Service claims it lacks stand age maps.¹³⁴ But this raises the question: how, then, does the Forest Service plan to conduct an accurate, legally compliant environmental review of the Lost River IRP without this information? Accurate stand age information is vital to provide a reasoned and well-informed basis for this or any similar project, as outlined in previous Standing Trees submissions.¹³⁵ Without it, the Forest Service will run afoul of its obligations under federal law, including NFMA.¹³⁶

The Scoping Letter indicates that there are five Forest Plan MAs within the Project boundaries.¹³⁷ Yet the Forest Service has not provided any maps overlaying proposed activities with Forest Plan MA boundaries. Standing Trees’s Executive Director, Zack Porter, noted that

¹³⁰ *Id.* § 1506.6(b).

¹³¹ Scoping Letter at 3.

¹³² Standing Trees Sandwich Comment at 4–12.

¹³³ WMNF Plan at 1-21.

¹³⁴ E-mail from Zack Porter, Exec. Dir., Standing Trees, to James Innes, Dist. Ranger, U.S. Forest Serv. and Johnida Dockens, Env’t Coordinator (June 16, 2022) (Exhibit 1).

¹³⁵ Standing Trees Sandwich Comment at 4–12.

¹³⁶ See 16 U.S.C. § 1604(g)(3)(F)(i).

¹³⁷ Scoping Letter at 2.

the maps at the May 2023 open house similarly lacked this important contextual information. Maps should also display RACR IRAs and Forest Plan Revision IRA boundaries.

Without adequate information regarding stand age-class data, the public cannot evaluate the Project's impacts or a full range of reasonable alternatives and the Forest Service will fail to comply with NEPA.

2. *Current scientific understanding of forest health*

The Forest Service must have a current scientific understanding of forest health when determining which projects to pursue in the WMNF.¹³⁸ This is necessary for the Forest Service to be able to write an informed purpose and need statement,¹³⁹ consider reasonable alternatives,¹⁴⁰ and “[evaluate] the reasonably foreseeable significant adverse impacts on the human environment.”¹⁴¹ Furthermore, the Forest Service must disclose the scientific studies on which it bases its decisions in order to enable meaningful public review.¹⁴² The Scoping Letter describes the Project's vegetation management goals as improving wildlife habitat diversity and increasing forest health and vitality and resiliency within the Project area to combat the effects of climate change and insect and disease outbreaks.¹⁴³ However, as discussed in prior comments,¹⁴⁴ this Project's proposed harvests are neither preferable nor necessary, as the Scoping Letter claims.

For example, the Forest Service's determination that the natural tendency of most of the forest is towards spruce/fir and that hardwoods, including beech, are unnaturally abundant is erroneous and factually baseless.¹⁴⁵ Historically, old forest has dominated New Hampshire,¹⁴⁶ and its absence is what drives insect and disease vulnerability. Unlogged forests in New England exhibit the greatest structural complexity, tree species diversity,¹⁴⁷ and climate change resiliency.¹⁴⁸ Invasive species are of great concern to forest health as well, yet the Forest Service consistently disregards the threat's significance. These and many other scientific contradictions riddle the Forest Service's EAs.

To date, the Forest Service has failed to meaningfully respond to the scientific evidence submitted by Standing Trees.¹⁴⁹ Federal courts have set aside NEPA analysis when an agency

¹³⁸ 40 C.F.R. § 1502.23.

¹³⁹ *Id.* § 1501.5(c)(2).

¹⁴⁰ *Id.*

¹⁴¹ *Id.* § 1502.21(c)(3).

¹⁴² *Id.* § 1502.23.

¹⁴³ Scoping Letter at 3.

¹⁴⁴ Standing Trees Sandwich Comment at 12–16.

¹⁴⁵ *See id.* at 6 (explaining that oak-pine and aspen-birch habitats do not typically naturally occur in the WMNF).

¹⁴⁶ Craig G. Lorimer & 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 20).

¹⁴⁷ *See generally*, Kathryn M. Miller et al., *Eastern National Parks Protect Greater Tree Species Diversity than Unprotected Matrix Forests*, 414 FOREST ECOLOGY & MGMT. 74 (2018) (Exhibit 21).

¹⁴⁸ Thom et al. at 1.

¹⁴⁹ *See, e.g.*, U.S. FOREST SERV., Response from U.S. Forest Serv.: 2nd 30-Day Comment Period Concern Responses at #69 (stating incorrectly that commenters do not provide any scientific evidence) (Exhibit 22); *see also*

fails to respond to scientific analysis that calls into question the agency's assumptions or conclusions.¹⁵⁰

3. *Up-to-date information regarding the Northern Long-Eared Bat*

To comply with NEPA, NFMA, the ESA, and the APA, the Forest Service *must* obtain project-specific, up-to-date information regarding the NLEB—something the Forest Service has failed to *try* to do for the past four years.¹⁵¹ Although an environmental evaluation of TES species has not yet been completed for the Lost River IRP area, the Forest Service may take the same shortcuts with this Project as it has in the past. To avoid this, and to subsequently avoid violating NEPA, NFMA, the ESA, and the APA,¹⁵² the Forest Service must complete project- and species-specific Biological Assessments (“BAs”) for the NLEB and any other TES species in the Project area.

NFMA requires the Forest Service to abide by its Forest Plans.¹⁵³ The 2005 WMNF Plan states that the “Forest Service will contribute to conservation and recovery of [] species and their habitats.”¹⁵⁴ However, the Forest Service also openly admits that it is uncertain of where the NLEB occurs on the landscape, but notes that the Eastern Hardwoods, which includes the WMNF, encompasses approximately 90% of the total known hibernacula and 78% of the species's known winter abundance.¹⁵⁵ If the Forest Service does not know where the NLEB's hibernacula and roosting sites occur, and does not make the effort to reasonably search for them, how can it abide by its own Forest Plan? The agency cannot ensure that the Lost River IRP will not affect the viability of the bat when it admits it does not have sufficient information about NLEB hibernacula to properly map the species's roosting habitat.¹⁵⁶

U.S. FOREST SERV., Response from U.S. Forest Serv.: Lake Tarleton Long Form, “PorterStandingTrees” Comment #66 (saying the same, despite the comment providing a plethora of regionally topical and recent scientific data) (Exhibit 19).

¹⁵⁰ See, e.g., *Bark v. U.S. Forest Serv.*, 958 F.3d 865, 871 (9th Cir. 2020); see *High Country Conservation Advocs. 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.”).

¹⁵¹ Peabody West IRP: Biological Evaluation and Wildlife Report 7 (Apr. 20, 2023).

¹⁵² See *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1250 (9th Cir. 2005) (holding that the Forest Service satisfied its requirements under NFMA to identify goshawk habitat when it had monitored goshawks in the Helena National Forest for more than eight years); but see *WildEarth Guardians v. Jeffries*, 370 F.Supp.3d 1208, 1235 (D. Or. 2019) (“The problem is that, without data identifying the location of calving sites and wallows, the Forest Service cannot meet its obligation to protect those sites or minimize disturbance to [elk].”); *Sierra Club v. Martin*, 71 F.Supp.2d 1268, 1319 (N.D. Ga. 1996) (finding that, because there was no population data, quantitative data, or other adequate information, the Forest Service did not have sufficient facts or evidence regarding sensitive and endangered species to support a FONSI).

¹⁵³ 16 U.S.C. § 1600(2, 6).

¹⁵⁴ WMNF Plan at 1-8.

¹⁵⁵ NLEB BiOp at 9, 23.

¹⁵⁶ *Kettle Range Conservation Grp. v. U.S. Forest Serv.*, No. 2:21-CV-00161-SAB, 2023 LEXIS 107552 (E.D. Wash. June 21, 2023).

The Forest Service further fails to meet NFMA requirements because the Forest Plan requires that “[a]ll project sites must be investigated for the presence of [TES] species and/or habitat . . . TES plant surveys must be completed for all new ground-disturbing projects, unless biologists/botanists determine TES species occurrence is unlikely (e.g., no habitat exists).”¹⁵⁷ As stated previously, the Scoping Letter does not address whether the Forest Service knows or has even looked into the existence of TES species or their habitat in the proposed area. This constitutes a clear violation of NEPA’s “hard look” requirements as well.

Section 7 of the ESA requires federal agencies to consult with USFWS if their proposed actions may affect a listed species or critical habitat.¹⁵⁸ If such species may be present in the proposed Project area, then the agency must conduct a project- and species-specific BA.¹⁵⁹ The WMNF is required to complete a BA evaluating the potential effects of the action (the Project) on listed species because, as explained above, this Project is “significant” within the meaning of NEPA.¹⁶⁰ No such assessment has been made for the Lost River IRP. Without this specific information, the public lacks the ability to meaningfully participate in the Project development process. The public’s ability to offer reasonable alternatives or submit meaningful comments is seriously restricted by a total dearth of information regarding TES species in the area. That dearth of information is a violation of NEPA and the APA.¹⁶¹ With the Lost River IRP, the Forest Service has the opportunity to rectify this situation.

The current BiOp for the NLEB makes no site- or Project-specific determinations whatsoever. The BiOp provides a blanket assessment of nearly 3,000 Forest Service projects, of which the Lost River IRP is only one.¹⁶² The BiOp goes on to estimate that the NLEB is gravely endangered in the WMNF, with as few as 25 maternity colonies and fewer than a thousand NLEB individuals in all of New Hampshire.¹⁶³ In other words, NLEBs are assumed to exist in the Project area, but nothing has changed to protect them following their endangered listing. The lack of reliable data on where NLEB colonies persist and the likelihood of impacts from Forest Service projects demonstrates a blatant disregard for the purpose and procedures of the ESA. The Forest Service cannot lawfully rely on this botched BiOp that did not follow the proper procedures laid out in the ESA.¹⁶⁴

¹⁵⁷ WMNF Plan at 2-13.

¹⁵⁸ 16 U.S.C. §1536(a)(2).

¹⁵⁹ *Id.* § 1536(c)(1).

¹⁶⁰ *Id.*

¹⁶¹ *Kettle Range Conservation Grp. v. U.S. Forest Serv.*, No. 2:21-CV-00161-SAB, 2023 WL 4112930, at *9–10 (E.D. Wash. June 21, 2023); 5 U.S.C. § 706(2)(A).

¹⁶² NLEB BiOp at 4 (“Due to the number of planned and ongoing projects and the similarity of effects, the projects will be combined and collectively evaluated to determine the projects’ effects on NLEB.”).

¹⁶³ *Id.* at 18, 30–35 (“[I]t is reasonable to conclude there will be some impacts to some individual NLEBs in areas where they have yet to be documented (i.e., specific areas where they are not reasonably certain to occur). Given the nature of forest management and overlap with suitable habitat, the best available science indicates that forest management practices are anticipated to have at least some negative impact on some individual NLEBs in unknown locations, as opposed to the assumption that forest management will have a large impact on all of the or most NLEBs.”).

¹⁶⁴ See *Ctr. for Biological Diversity v. U.S. Forest Serv.*, No. CV 22-114-M-DWM, 2023 WL 5310633, at *7 (D. Mont. Aug. 17, 2023) (“[A]n agency violates the ESA if it relies on a legally flawed BiOp.”).

IV. The Forest Service Must Comply with All Other Applicable Federal, State, or Local Laws and Executive Orders Protecting the Environment.

A. The Forest Service must comply with the National Forest Management Act.

NFMA requires that projects on National Forest lands “shall be consistent with the land management plans.”¹⁶⁵ The Forest Plan contains goals, standards, and guidelines for various MAs. According to the Scoping Letter, “project activities are proposed on about 1,940 acres in MA 2.1,” with an additional three acres of Project activities located in MA 6.1 and MA 6.2.¹⁶⁶ The Forest Service must ensure that all Project activities are designed to further the goals outlined by the Forest Plan for the relevant MAs.¹⁶⁷

While the Forest Plan includes specific goals for lands in MA 2.1, for many resource types, it states that “[f]orest-wide standards and guidelines apply.” The Forest Service should take particular note of these forest-wide standards and guidelines in its plans for the Lost River IRP. In particular, the Forest Service should consider the following forest-wide resource guidelines, as applied to Project sites in areas designated MA 2.1.

1. Non-native invasive species (NNIS)

The Forest Plan’s Management Area Direction for Non-Native Invasive Species (NNIS) in MA 2.1 states, “Forest-wide standards and guidelines apply.”¹⁶⁸ The Forest Plan establishes a goal of keeping the WMNF “as free of [NNIS] . . . as reasonably possible.”¹⁶⁹ To accomplish that goal, “planning for all activities will consider NNIS prevention and mitigation of possible effects,” with the goal of minimizing NNIS occurrence.

Scientific research has linked clearcutting and other intensive vegetation management practices to an increase in NNIS. For example, a 2011 study focused on the Penobscot Experimental Forest in Maine found that of the various silvicultural treatment areas examined, the greatest number of invasive plants was found in a parcel that had twice been subjected to commercial clearcutting.¹⁷⁰ The author observed that “[m]any of the occurrences of invasive species in the silvicultural experiment coincided with skid trails.”¹⁷¹ By contrast, “[r]elatively undisturbed forests usually contain fewer invasive plants than more heavily disturbed areas.”¹⁷² The Forest Service should ascertain the extent of current NNIS encroachment in the Project area and make that information available to the public. The Forest Service should then analyze the

¹⁶⁵ 16 U.S.C. §1604(i).

¹⁶⁶ Scoping Letter at 4.

¹⁶⁷ It should also be noted that the Forest Plan itself is out of date, and is therefore out of compliance with NFMA, which provides that land and resource management plans shall be revised “at least every fifteen years.” 16 U.S.C. § 1604(f)(5). The current Forest Plan was published in 2005, and as of this submission, it is three years past due for revision.

¹⁶⁸ WMNF Plan at 3-5.

¹⁶⁹ *Id.* at 1-7.

¹⁷⁰ Elizabeth Olson et al., *Nonnative Invasive Plants in the Penobscot Experimental Forest in Maine, USA: Influence of Site, Silviculture, and Land Use History*, 138 J. TORREY BOTANICAL SOC’Y 453, 461 (2011) (Exhibit 23).

¹⁷¹ *Id.*

¹⁷² *Id.* at 462.

likely impact of the proposed vegetation management activities on NNIS in the Project area and compare that projection to the current status.

2. *Water resources*

The Forest Plan's Management Area Direction for Water Resources in MA 2.1 states, "Forest-wide standards and guidelines apply."¹⁷³ The Plan's discussion of Water Resources sets the goal that "[s]urface waters on the [WMNF] are considered 'outstanding resource waters,' and water quality is maintained or improved to protect existing and designated instream water uses such as aquatic life."¹⁷⁴ However, logging has the potential to worsen, rather than maintain or improve, water quality in and around the Project area.

A USDA study of the effect of clearcutting on streamflow in a New Hampshire forest found that "[a]s a result of nearly eliminating transpiration and of reducing canopy interception losses, streamflow . . . increased greatly during each of the first two water years after clearing," with post-clearcut streamflow peaking at 40% higher than pre-treatment estimates.¹⁷⁵ Other researchers have pointed out that vegetation management activities can cause impacts such as "increased water temperatures and suspended sediment concentrations" both in the immediate area and downstream, in unlogged parts of the forest.¹⁷⁶ Furthermore, even when buffers are used to protect waterways, "[t]he presence of a riparian buffer typically has little effect on harvesting-related changes in stream flow . . . and may not protect against increases in sediment input."¹⁷⁷

To comply with the Forest Plan, the Forest Service should assess the current water quality of ponds, streams, wetlands, and other water resources within the Project area to establish a baseline. The Forest Service should also analyze the likely effects of the planned logging activities, road construction, and campsite development on the quality of these waterways. Furthermore, the Forest Service should assess whether its planned activities will comply with the Clean Water Act's provisions for permit-exempt silvicultural activities, and it should share that information and reasoning with the public.¹⁷⁸

3. *Soil resources*

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

¹⁷³ WMNF Plan at 3-8.

¹⁷⁴ *Id.* at 1-17-1-18.

¹⁷⁵ J.W. Hombeck et al., *Streamflow Changes After Forest Clearing in New England*, 6 WATER RES. RSCH. 1124, 1126 (1970) (Exhibit 24).

¹⁷⁶ R. Dan Moore & John S. Richardson, *Natural Disturbance and Forest Management in Riparian Zones: Comparison of Effects at Reach, Catchment, and Landscape Scales*, 31 FRESHWATER SCI. 239, 240 (2012) (Exhibit 25).

¹⁷⁷ *Id.*

¹⁷⁸ 40 C.F.R. § 232.3(c)(1).

patch clearcutting, on soil health. In order to assess these impacts accurately, the Forest Service should first analyze the current soil conditions to establish a baseline against which the impacts of the Project can be compared.

B. The Forest Service must comply with Executive Orders 14,008 and 14,072.

Soon after taking office in 2021, President Biden issued Executive Order 14,008, “Tackling the Climate Crisis at Home and Abroad.” The order expressed a policy of “conserv[ing] and restor[ing] public lands . . . increas[ing] reforestation . . . and address[ing] the changing climate” through the adoption of climate-smart forestry practices.¹⁷⁹ In the Climate Adaptation Plan it produced in response to this executive order, the Forest Service explicitly acknowledged that “[m]any forests with old-growth characteristics have a combination of higher carbon density and biodiversity that contributes to both carbon storage and climate resilience.”¹⁸⁰

President Biden continued to develop his administration’s policy of leveraging forest resources to address climate change in Executive Order 14,072, “Protecting Mature and Old-Growth Forests, both Foreign and Domestic,” issued on April 22, 2022. This order states that it is the policy of this administration to “conserve America’s mature and old-growth forests on Federal lands.”¹⁸¹ The order cites many benefits of preserving MOG forests, instructing agencies to manage MOG forests on Federal lands to “promote their continued health and resilience; retain and enhance carbon storage; conserve biodiversity; mitigate the risk of wildfires; enhance climate resilience; enable subsistence and cultural uses; provide outdoor recreational opportunities; and promote sustainable local economic development.”¹⁸²

This order directed the Secretary of Agriculture to “define, identify, and complete an inventory of old-growth and mature forests” on National Forest lands within one year.¹⁸³ In compliance with this directive, the Forest Service compiled an inventory of MOG forests within the National Forest System; this report was released in April 2023.¹⁸⁴ The Forest Service must now follow through with the next steps outlined in the order.

Now that the inventory has been completed, Executive Order 14,072 directs the Secretaries to “analyze the threats to mature and old-growth forests on Federal lands, including from wildfires and climate change,” and “develop policies, with robust opportunity for public comment, to institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth forests on Federal lands.”¹⁸⁵ Failure to take Executive Order 14,072 into account when planning projects such as the Lost River IRP, when the Forest Service

¹⁷⁹ 86 Fed. Reg. 7619, 7627 (Jan. 27, 2021).

¹⁸⁰ U.S. Forest Serv., *Forest Service Climate Adaptation Plan* 13 (2022), https://www.usda.gov/sites/default/files/documents/4_NRE_FS_ClimateAdaptationPlan_2022.pdf.

¹⁸¹ 87 Fed. Reg. 24,851 (Apr. 22, 2022).

¹⁸² *Id.* at 24,852.

¹⁸³ *Id.*

¹⁸⁴ U.S. DEP’T. OF AGRIC., *MATURE AND OLD-GROWTH FORESTS: DEFINITION, IDENTIFICATION, AND INITIAL INVENTORY ON LANDS MANAGED BY THE FOREST SERVICE AND BUREAU OF LAND MANAGEMENT* (2023), <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf>.

¹⁸⁵ 87 Fed. Reg. 24,851, 24,852 (Apr. 22, 2022).

has relied on that order in other contexts, would constitute arbitrary and capricious decision-making under the APA.¹⁸⁶

As Standing Trees explained in a previous comment,¹⁸⁷ forests in temperate zones such as in the eastern U.S. have a particularly high untapped capacity for carbon storage and sequestration because of high growth and low decay rates. Forests in this region, when allowed to follow their natural course of growth, also exhibit exceptionally long periods between stand replacing disturbance events. Further, because of recent recovery from an extensive history of timber harvesting and land conversion for agriculture in the 18th, 19th, and early 20th centuries, median forest age is about 75 years,¹⁸⁸ which is only about 25–35% of the lifespan of many of the common tree species in these forests.¹⁸⁹ Several global studies have highlighted the unique potential of our temperate deciduous forests to contribute on the global stage to climate stabilization and resilience.¹⁹⁰

Preserving mature and old forests is of vital importance for our national efforts to mitigate the impacts of climate change. The Forest Service must follow Executive Orders 14,008 and 14,072 and analyze and avoid any threats to the survival of mature and old forest that might result from projects such as the Lost River IRP.

V. Conclusion

For the foregoing reasons, Standing Trees requests the Forest Service turn a new leaf and complete an EIS for the Lost River IRP. Given the significance of this Project, an EIS will be necessary to adequately evaluate the Project's many environmental impacts and the reasonable alternatives to the Project as proposed. Moving forward, the Forest Service must both consider and produce up-to-date scientific literature and environmental evaluations and meaningfully involve the public in the Project's development. By doing so, the Forest Service will comply with the applicable requirements of numerous federal laws and regulations and fulfill its obligations as the steward of the remarkable resources of the WMNF.

¹⁸⁶ See 5 U.S.C. § 706(2)(a).

¹⁸⁷ Standing Trees Sandwich Scoping Comment at 30.

¹⁸⁸ William R. Moomaw et al., *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, FRONTIERS FOREST & GLOB. CHANGE, June 2019, at 1, 4 (Exhibit 26).

¹⁸⁹ *Id.* at 4–5.

¹⁹⁰ Eric Dinerstein et al., A “Global Safety Net” to Reverse Biodiversity Loss and Stabilize Earth’s Climate, SCI. ADVANCES, Sept. 2020, at 1 (Exhibit 27); Martin Jung et al., *Areas of Global Importance for Conserving Terrestrial Biodiversity, Carbon, and Water*, 5 NATURE ECOLOGY & EVOLUTION 1499 (2021) (Exhibit 28).

Respectfully submitted,

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TABLE OF EXHIBITS

Number	Exhibit Title
1	E-mail from Zack Porter, Exec. Dir., Standing Trees, to James Innes, Dist. Ranger, U.S. Forest Serv. and Johnida Dockens, Env't Coordinator (June 16, 2022, 12:53 EST)
2	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).
3	Luyssaert et al., <i>Old-growth Forests as Global Carbon Sinks</i> , 455 NATURE, 213 (2008)
4	Leverett et al., <i>Older Eastern White Pine Trees and Stands Sequester Carbon for Many Decades and Maximize Cumulative Carbon</i> , 4 FRONTIERS FOR GLOBAL CHANGE 1 (May 2021)
5	Thom et al., <i>The Climate Sensitivity of Carbon, Timber, and Species Richness Covaries with Forest Age in Boreal-Temperate North America</i> , (2019)
6	Robert A. Askins, <i>The Critical Importance of Large Expanses of Continuous Forest for Bird Conservation</i> , 25 BIOLOGY FACULTY PUBLICATIONS 1, 25 (2015)
7	Thorn et al., <i>The Living Dead: Acknowledging Life After Tree Death to Stop Forest Degradation</i> , 18 FRONTIERS ECOL. & ENV'T. 505 (2020)
8	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)
9	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)
10	Stephenson et al., <i>Rate of Tree Carbon Accumulation Increases Continuously with Tree Size</i> , 507 NATURE 90 (Jan. 2014)
11	Faison et al., <i>Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States</i> , FOREST ECOLOGY & MGMT. 544 (May 2023)
12	Duveneck 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)
13	Safeeq et al., <i>Disentangling Effects of Forest Harvest on Long-Term Hydrologic and Sediment Dynamics, Western Cascades, Oregon</i> , J. HYDROLOGY 580 (2020)
14	MIKE ANDERSON ET AL., WILDERNESS SOC'Y., WATERSHED HEALTH IN WILDERNESS, ROADLESS, AND ROADED AREAS OF THE NATIONAL FOREST SYSTEM (2015)
15	Dominick A. DellaSala et al., <i>Roadless Areas and Clean Water</i> , J. SOIL & WATER CONSERVATION, May/June 2011
16	Mathew S. Dietz et al., <i>The Importance of U.S. National Forest Roadless Areas for Vulnerable Wildlife Species</i> , GLOBAL ECOLOGY & CONSERVATION, Nov. 2021
17	James E.M. Watson et al., <i>The Exceptional Value of Intact Forest Ecosystems</i> , NATURE: ECOLOGY & EVOLUTION, Feb. 2018
18	McKinley J. Talty et al., <i>Conservation Value of National Forest Roadless Areas</i> , CONSERVATION SCI. & PRAC., Sept. 2020

19	UNITED STATES FOREST SERVICE, Response from Forest Service: Lake Tarleton Long Form
20	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
21	Kathryn M. Miller et al., <i>Eastern National Parks Protect Greater Tree Species Diversity than Unprotected Matrix Forests</i> , 414 FOREST & ECOLOGY MGMT. 74 (2018)
22	U.S. FOREST SERV., Response from U.S. Forest Serv.: 2nd 30-Day Comment Period Concern Responses
23	Elizabeth Olson et al., <i>Nonnative Invasive Plants in the Penobscot Experimental Forest in Maine, USA: Influence of Site, Silviculture, and Land Use History</i> , 138 J. TORREY BOTANICAL SOC'Y. 453 (2011)
24	J.W. Hornbeck et al., <i>Streamflow Changes After Forest Clearing in New England</i> , 6 WATER RES. RSCH. 1124 (1970)
25	R. Dan Moore & John S. Richardson, <i>Natural Disturbance and Forest Management in Riparian Zones: Comparison of Effects at Reach, Catchment, and Landscape Scales</i> , 31 FRESHWATER SCI. 239 (2012)
26	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.
27	Eric Dinerstein et al., <i>A “Global Safety Net” to Reverse Biodiversity Loss</i> , SCI. ADVANCES 1, Sept. 2020, at 1.
28	Martin Jung et al., <i>Areas of Global Importance for Conserving Terrestrial Biodiversity, Carbon, and Water</i> , 5 NATURE ECOLOGY & EVOLUTION 1499 (2021)