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June 12, 2023

Derek Ibarguen, Reviewing Officer
Attn.: PAL-LSC Objections, Administrative Review Coord., Suite 700
USDA Forest Service, Eastern Region
626 East Wisconsin Avenue
Milwaukee, WI 53202

Submitted via: <https://cara.fs2c.usda.gov/Public//CommentInput?Project=55659> and USPS certified mail

Re: Objection Pursuant to 36 C.F.R. § 218.8 to Peabody West Integrated Resource Project #55659, Androscoggin Ranger District, White Mountain National Forest

Dear Objection Reviewing Officer:

Standing Trees respectfully files this objection to the Peabody West Integrated Resource Project (“IRP”) (the “Project”) under the process identified in 36 C.F.R. § 218.8. Notice of availability of the Draft Decision Notice (“DDN”), Final Environmental Assessment (“Final EA”), and Finding of No Significant Impact (“FONSI”) was published in the newspaper of record, the New Hampshire Union Leader, on April 27, 2023. This objection is timely as the deadline to submit objections is June 12, 2023. Standing Trees submits this objection via certified U.S. mail and electronically. The certified mail copy includes a thumb drive containing electronic copies of all the exhibits cited below. A list of those exhibits is included at the end of this objection.

PROJECT

Pursuant to 36 C.F.R. § 218.8(d)(4), Standing Trees objects to the following project:

Project: Peabody West Integrated Resource Project, Coos County, New Hampshire

Responsible Official and Forest/Ranger District: Derek Ibarguen, White Mountain National Forest Supervisor and Androscoggin Ranger District, White Mountain National Forest

ELIGIBILITY TO OBJECT

Standing Trees is a grassroots membership organization that works to protect and restore New England's forests, with a focus on state and federal public lands in 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 Peabody West IRP. The Environmental Advocacy Clinic at Vermont Law and Graduate School submits this objection on behalf of Standing Trees.

Standing Trees filed a timely, specific, and substantive comment during the Draft Environmental Assessment ("Draft EA") comment period for the Project at issue on September 6, 2022. Under 36 C.F.R. § 218.8, Standing Trees has standing to file an Objection. All points and issues raised in this objection refer to issues raised in our September 6, 2022, comments on the Draft EA or are related to new information, pursuant to 36 C.F.R. § 218.8(c).

LEAD OBJECTOR

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

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CONCISE STATEMENT OF OBJECTIONS

The Forest Service's founding motto implores the agency to *manage our public forests for the benefit of the greatest good for the greatest number for the longest time*. The public interest is best served by protecting the mature forests of the White Mountain National Forest. As proposed, the Peabody West IRP offends the purpose of the WMNF Forest Plan ("Forest Plan" or "Plan")¹ and threatens forest health, climate resilience, water quality, habitat for imperiled species, and the area's scenic beauty and recreational opportunities.

The Peabody West IRP is a multi-phase, multi-year project that will significantly affect the environment. The Project will likely have both short and long-term effects because of its

¹ White Mountain National Forest Land and Resource Management Plan (Sept. 2005), available at <https://www.fs.usda.gov/detailfull/whitemountain/landmanagement/planning/?cid=STELPRDB5199941&width=full> (hereinafter "WMNF Plan").

expansive scope and size. Logging will harm the now-endangered Northern Long-eared Bat (“NLEB”) and other species that depend on mature, interior forests. The Project will contribute to the loss of climate benefits of retaining mature and old stands, violating Executive Order 14,072.² The Project will significantly impact the Great Gulf Roadless Area, its possibility for future wilderness designation, the Peabody River (and its West Branch), and this landscape’s values for habitat, clean water, and recreation. Logging will cause detrimental impacts to water quality due to runoff, sedimentation, and potential herbicide contamination. The proposed action may cause loss or damage to historic and cultural resources located within the Project area.

Without meaningful justification and after sidestepping substantive and procedural requirements of federal law, the Forest Service has erroneously decided the Peabody West IRP is needed to implement the management direction in the Forest Plan and meet the Plan’s goals, objectives, and desired conditions for vegetation, wildlife, and other resources. Yet the Forest Service failed to demonstrate compliance with the National Environmental Policy Act (“NEPA”), National Forest Management Act (“NFMA”), Clean Water Act (“CWA”), and Endangered Species Act (“ESA”), and the DDN,³ Final EA,⁴ and FONSI⁵ violate specific provisions of NEPA, NFMA, ESA, Council on Environmental Quality (“CEQ”) guidance, and recent executive orders. As a result, any final decision to proceed with the Project as currently proposed would violate the Administrative Procedure Act and its prohibition of agency decision-making that is arbitrary, capricious, or otherwise contrary to law.⁶

Standing Trees, therefore, objects to the Project, *inter alia*, on the ground that it requires an Environmental Impact Statement (“EIS”) instead of an EA under NEPA and, if pursued, must be changed to avoid, minimize, or mitigate the full range of the Project’s deleterious environmental impacts. Standing Trees also objects to the Project because it violates the ESA by failing to protect the endangered NLEB and other threatened and endangered species and because it is inconsistent with the Forest Plan in contravention of NFMA.

SUMMARY OF PROJECT

The Peabody West IRP is a collection of management activities that the Forest Service has proposed to take place in approximately 3,000 acres of the Peabody West Habitat Management Unit (“HMU”) of the WMNF. According to the Forest Service, it is intended to “advance Forest Plan goals and objectives by providing high quality timber products,

² See *infra* note 15.

³ *Peabody West Integrated Resource Project: Draft Decision Notice* (April 27, 2023), <https://usfs-public.app.box.com/v/PinyonPublic/file/1200237920268> (in Peabody West IRP project file at filename Peabody West Draft Decision Notice.pdf) (hereinafter “DDN”).

⁴ *Peabody West Integrated Resource Project: Final Environmental Assessment and Finding of No Significant Impact 1* (April 27, 2023), <https://usfs-public.app.box.com/v/PinyonPublic/file/1200238908343> (in Peabody West IRP project file at filename Peabody West Environmental Assessment and Finding of No Significant Impact.pdf) (hereinafter “Final EA”).

⁵ *Id.* at 28.

⁶ 5 U.S.C. § 706.

diversifying wildlife habitat, and addressing other recreation and transportation management needs.”⁷ Specifically, the Project includes:

- Logging and other “silvicultural treatment” on about 2,220 acres of lands within the Peabody West HMU, as well as expanding a permanent wildlife opening to about 19 total acres and thinning vegetation within a 3-acre area at the Androscoggin Ranger District office;
- Road development, including:
 - constructing about 0.6 mile of new road to replace a 0.8-mile decommissioned portion of Forest Road 263 (Libby South) and Forest Road 264 (Jacknife);
 - reconstructing about 9 miles of existing system and non-system roads; and
 - adding about 3 miles of unauthorized roads to the forest road system;
- Recreational designations and development, including:
 - designating of about 6 miles of mountain biking trail as part of the forest trail system;
 - constructing about 4 miles of new single- and double-track trail on National Forest System land;
 - designating about 300 acres as a backcountry ski zone with up to 5 skiable downhill routes; and
 - grading and tread-hardening trail access to the Third Hole swimming site.⁸

The Forest Service developed this proposal beginning in 2019. On August 4, 2022, the Forest Service issued the Draft EA and FONSI for the Project. Standing Trees and other stakeholders filed comments during the public comment period on the Draft EA and FONSI that ended on September 6, 2022. The Forest Service issued the DDN, Final EA, and FONSI on April 27, 2023.

DETAILED OBJECTIONS

The Peabody West IRP is a major federal action that is likely to significantly affect the quality of the human environment, warranting an EIS pursuant to 40 C.F.R. § 1502.3.⁹ NEPA has “twin aims,” imposing on “an agency the obligation to consider every significant aspect of the environmental impact of a proposed action . . . and ensures that the agency will inform the

⁷ DDN at 1.

⁸ *Id.*

⁹ CEQ promulgates regulations to implement NEPA that are binding on all federal agencies. Those regulations are found at 40 C.F.R. §§ 1500–1508. CEQ amended its regulations effective September 14, 2020. *See* 40 C.F.R. § 1506.13 (2020) (effective date). This Project, however, was developed and analyzed under the prior (as amended) version of the CEQ regulations. *See* Final EA at 3. Because the 2020 regulations are not retroactive and the Service’s NEPA analysis followed the 2019 version of the regulations, all references to these regulations throughout this Objection are to the 2019 version. *See Bair v. Cal. Dep’t of Transp.*, 982 F.3d 569, 577 n.20 (9th Cir. 2020).

public that it has indeed considered environmental concerns in its decision making process.”¹⁰ Preparation of an EIS is required when an agency’s action *may* have a significant effect on the environment.¹¹ As discussed below, the Final EA does not satisfy NEPA’s requirements, and the Forest Service’s decision to prepare only an EA when an EIS was required was erroneous and unlawful.¹² The Forest Service also has failed to ensure protection of endangered, threatened, and sensitive species, including the now-endangered NLEB, in contravention of the requirements of the ESA, Forest Plan, and NFMA. The Project also conflicts with the Forest Plan’s requirements for scientific rigor, public participation, and other Plan standards and guidelines, in violation of NFMA.

Requested Remedy: The Forest Service must complete an EIS for the Peabody West IRP to cure deficiencies in the Final EA, must undertake additional review of the Project’s impacts on endangered, threatened, and sensitive species under the ESA, Forest Plan, and NFMA, and revise the Project in accord with the Forest Plan and the NFMA, as outlined in our prior comments and expanded upon below.

I. The Final EA Fails to Take a “Hard Look” at the Project’s Many, Significant Environmental Impacts.

Under NEPA, the Forest Service must take a “hard look” at the environmental impacts of the planned action.¹³ In the Final EA, like in the Draft EA, the Forest Service does not fully discuss relevant issues and fails to make meaningful statements regarding the Project’s actual impacts.¹⁴ Throughout the Final EA, the Forest Service failed to provide more than mere conclusory statements to support its findings. The discussion below highlights some of the continued inadequacies with the Final EA’s analysis of project-area environmental resources.

¹⁰ *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983).

¹¹ *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 444 F. Supp. 3d 832, 854 (S.D. Ohio 2020) (quoting *Mont. Wilderness Ass’n v. Fry*, 310 F. Supp 2d 1127, 1144 (D. Mont. 2004)).

¹² In June 2023, Congress amended NEPA in legislation regarding the federal debt ceiling, and the President signed those changes into law. Pub. L. 118-5. Standing Trees takes no position on the applicability of these amendments to the Forest Service’s review of this Project but assumes for the limited purpose of this Objection that the amendments neither would affect the extent of Forest Service’s obligations under CEQ regulations and applicable legal principles nor would they apply retroactively here.

¹³ *Marsh v. Or. Natural Resources Council*, 490 U.S. 360, 374 (1989); *Bark v. U.S. Forest Serv.*, 958 F.3d 865, 869 (9th Cir. 2020).

¹⁴ *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004) (“A proper consideration of the cumulative impacts of a project requires ‘some quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided’” (quoting *Ocean Advocs. v. U.S. Army Corps of Eng’rs.*, 361 F.3d 1108, 1127 (9th Cir. 2004))).

A. Vegetation and Forest Health

The Final EA’s analysis of the Project’s impacts on vegetation and forest health utterly fails to satisfy the requirements of NEPA. The Final EA does not support its conclusion that forest conditions in the Project area require timber management with detailed information regarding the age and species of stands that the Project seeks to alter. The Forest Service has wholly ignored the significant adverse environmental impacts of logging and the substantial scientific evidence that the proposed silvicultural prescriptions will threaten forest health, climate resilience, and wildlife habitat. In this regard, the Final EA also fails to explain how the Project’s proposal to log more than 2,200 acres of the Peabody West HMU will comply with the policies of Forest Plan, Executive Order 14,072, and Executive Order 14,008, which support protecting mature forests like the Project area and disfavor the type of forest management proposed here.¹⁵

1. *Lack of Detailed Information on Stand Age and Species Composition*

As Standing Trees previously commented, a threshold problem with the Final EA is that it fails to take a hard look at stand ages and species composition within the Peabody West HMU—the purported rationale for the Project’s logging proposals. The Forest Service suggests the Peabody West HMU is not meeting its “MA 2.1 Habitat Composition and Age Class Objectives” as outlined in the Forest Plan.¹⁶

From the Final EA and supporting documents, there is no way for the public to determine whether the Forest Service is correct. The Final EA refers to a “preliminary assessment of current conditions including general stand type (hardwood and softwood) and tree heights using LiDAR and aerial photography,” but this assessment has not been made publicly available.¹⁷ The Final EA suggests that “[m]ost of the habitats in the project area are mature, with some younger stands interspersed,”¹⁸ and the Peabody West HMU Rationale document in the Project file says that 79% of the Project area is in the mature age class, across all forest types.¹⁹ However, neither the Final EA nor its supporting documents include an age class map to help the public understand the amount and distribution of forest types and age classes. The public is unclear whether the Forest Service has complied with the requirements of the Forest Plan, including

¹⁵ Exec. Order No. 14,072, 87 Fed. Reg. 24,851 (Apr. 22, 2022); Exec. Order No. 14,008, 86 Fed. Reg. 19 (Jan. 27, 2021).

¹⁶ The Final EA claims there is a “lack of open forest conditions,” but does not suggest what would constitute appropriate levels of such conditions. As discussed below, upland forests such as this one would have had only 1-3% of the landscape in early seral conditions. Lorimer and White, *Scale and Frequency of Natural Disturbances in the Northeastern US: Implications for Early Successional Forest Habitats and Regional Age Distributions* 185 FOREST AND ECOLOGY MANAGEMENT 41(2003), available at <http://www.maforests.org/Lorimer%20and%20White%20-%20ES%20Habitat.pdf> (Exhibit 14) (hereinafter “Lorimer and White”).

¹⁷ Final EA at 4.

¹⁸ *Id.* at 1.

¹⁹ Rationale for Habitat Objectives in the Peabody West Habitat Management Unit 9 (July 6, 2022) (hereinafter, “Habitat Rationale”).

applicable Standard S-3 or Guideline G-1.²⁰ Nor does the Final EA contain an analysis of whether the age class objectives for regeneration and young age classes have already been met, forest-wide, in the 17 years since the signing of the Forest Plan. Indeed, the Forest Plan expects regeneration age-class objectives to be met by year 10 of the Forest Plan.²¹

The Forest Plan also states, “[n]o harvest will occur in stands identified to provide old forest habitat.”²² The Forest Plan defines Old Forest Habitat as: “Desired habitat conditions start with those for mature forest and can include greater size, decadence, structural complexity, etc.”²³ Certainly, these attributes could appear in stands that are otherwise classified as “mature” according to the 2005 Forest Plan 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 Plan—indeed, the Project targets mature forests.²⁴

As raised in previous comments, the Forest Service’s determination that the natural tendency of the majority of the forest is towards spruce/fir and that hardwoods, including beech, are unnaturally abundant is erroneous and factually baseless. Hardwoods were the dominant tree species in the WMNF prior to European settlement, and beech was the most dominant of the hardwoods.²⁵ The Forest Service’s age class analysis is similarly erroneous. The Project analysis fails to account for regeneration and young-aged trees because it only accounts for these conditions at an artificial stand scale that would rarely, if ever, occur under natural conditions in the forest. As a result of this foundational error, the Peabody West IRP presupposes that the *only* way to achieve desired age class goals is to conduct logging activities. This determination biases the agency against other valid management approaches, constraining the development of alternatives.

The Forest Service suggests the Project will cultivate a healthy forest with improved biodiversity, yet provides no scientific evidence.²⁶ The Forest Service states that natural means would create less “[d]iversity of age and structure” and “wildlife habitat diversity would continue to decline,”²⁷ but provides no analysis of: (a) how much young forest habitat is already present on public lands or surrounding private lands; (b) how much would be created naturally with a no-action alternative; (c) how its proposed “young forest habitat” differs from what would occur naturally in the forest; and (d) “overall wildlife species diversity” would, in fact, differ

²⁰ Standard S-3 of the Forest Plan provides that “[t]imber harvest is prohibited in old growth forest.” WMNF Plan at 2-13. Guideline G-1 of the Forest Plan provides that “[o]utstanding natural communities should be conserved.” *Id.*

²¹ WMNF Plan at 1-21.

²² WMNF Plan Abbreviations, Acronyms, and Glossary at 21.

²³ *Id.*

²⁴ *Id.*

²⁵ Lorimer and White (Exhibit 14).

²⁶ DDN at 1.

²⁷ Final EA at 21.

between naturally and artificially-created early successional habitat. These gaps illustrate how, on its own terms, the Final EA fails to comply with NEPA’s requirements of reasoned, transparent analysis.

2. *Failure to Address Current Scientific Understanding of Forest Health*

Indeed, a more far-reaching issue with the Final EA and its analysis of vegetation and forest conditions is that they are not informed by the latest scientific understanding of the ecology of New England forests, the benefits of protecting mature forests, and the negative environmental impacts of logging. The Final EA describes the Project’s vegetation management goals as promoting tree regeneration, vegetation regeneration, and increases in wildlife habitat diversity.²⁸ As discussed below, the proposed harvests are neither preferable nor as necessary as the Final EA claims. The Forest Service also failed to disclose, discuss, and respond to the scientific evidence we raised in our comment.²⁹

For example, we explained in our comment that old forests historically dominated New Hampshire, and it remained that way for millennia prior to European arrival.³⁰ Although the Abenaki people and other indigenous communities developed a sophisticated culture and cleared and managed some of the New England landscape with fire, recent science demonstrates that their impacts were highly concentrated, with the majority of historic New England forests primarily impacted by forces such as wind, ice, and beavers.³¹ Much of New Hampshire’s landscape evolved with relatively minor human influence over thousands of years since the last glaciation.

Today, old forests—the forests that once dominated the region—are functionally absent from northern New England.³² The absence of old forests in New England has led to the elimination or decline of elk, caribou, wolverine, wolves, cougars, pine marten, and salmon.³³

²⁸ Final EA at 5.

²⁹ Standing Trees Comments on Peabody West IRP Draft EA/FONSI at 22-24 (Sept. 6, 2022) (Exhibit 36) (hereinafter “Standing Trees Comments”).

³⁰ Lorimer and White (Exhibit 14).

³¹ Oswald et al., *Conservation implications of limited Native American impacts in pre-contact New England*, 3 NATURE SUSTAINABILITY 241, 243 (2020), available at https://rex.libraries.wsu.edu/esploro/fulltext/acceptedManuscript/Conservation-implications-of-limited-Native-American/99900586062001842?repId=12350928850001842&mId=13362786220001842&institution=01ALLIANCE_WSU (Exhibit 15).

³² Zaino et al., Vt. Fish and Wildlife Dept., Vermont Conservation Design – Natural Community and Habitat Technical Report 15 (March 2018), available at <https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Conserve/VT%20Conservation%20Landscape-level%20Design/Vermont%20Conservation%20Design--Natural-Community-and-Habitat-Technical-Report-March-2018.pdf> (Exhibit 16) (hereinafter “Zaino et al. (2018)”).

³³ Evans and Mortelliti, *Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher*, 13 ECOSPHERE 1 (Nov. 24, 2021) (Exhibit 17).

Large swaths of intact forest minimize harmful vectors for the spread of invasive species and ticks and allow for a mix of both early and late successional habitats as required by New England's forest-dependent species. Unlogged forests in New England exhibit the greatest structural complexity, tree species diversity,³⁴ and the greatest resilience to climate change.³⁵

According to the definitive paper on disturbance frequency and intensity in New England, “the proportion of the presettlement landscape in seedling–sapling forest habitat (1–15 years old) ranged from 1 to 3% in northern hardwood forests (*Fagus–Betula–Acer–Tsuga*) of the interior uplands,” and “[t]he current estimates of 9-25% [seedling-sapling habitat] for the northern New England states are probably several times higher than presettlement levels.”³⁶ Gap size in Hemlock-Northern Hardwood forests averaged less than .75 acres. Beech was the dominant species among Northern Hardwoods, comprising perhaps 30% of the forest. Stand replacing events occurred, on average, only every 1,000 to 7,500 years.³⁷

Due primarily to human-driven forest conversion (i.e., development, agriculture) and degradation (i.e., logging, fragmentation), mature and old-growth forests, once common in the forested regions of the U.S., are today underrepresented compared to historical levels. As explained previously, prior to European settlement, old-growth forests were the dominant land cover of northern New England, including in the WMNF.

Recent research led by Dr. Dominick DellaSala provided the first nationwide assessment of present levels of mature forests in the U.S.³⁸ Today, mature and old-growth forests represent ~36% of all forest age classes across the nation, with the greatest amount in a single ownership (35%) located on federal lands. Of the mature forests on federal lands, 92% are managed by the

³⁴ Miller et al., *Eastern National Parks Protect Greater Tree Species Diversity than Unprotected Matrix Forests*, 414 *FOREST ECOLOGY & MGMT.* 74 (April 15, 2018) (Exhibit 18) (hereinafter “Miller et al. (2018)”).

³⁵ Thom et al., *The Climate Sensitivity of Carbon, Timber, and Species Richness Covaries with Forest Age in Boreal-Temperate North America* (2019) (Exhibit 19) (hereinafter “Thom et al.”).

³⁶ Lorimer and White (Exhibit 14).

³⁷ *Id.* See also Nowacki and Abrams, *The Demise of Fire and “Mesophication” of Forests in the Eastern United States*, 58 *BIOSCIENCE* 123 (2008), available at https://www.nrs.fs.usda.gov/pubs/jrnl/2008/nrs_2008_nowacki_001.pdf (Exhibit 20) (“Although humans have a long history (about 12,000 years) on the North American continent, the magnitude of change wrought by European settlement has no parallel since the last glaciation... In New England, rates of landscape change have been far greater in the past 300 years than in the previous 1000 years as a result of forest cutting, agricultural conversion, urban development, altered fire regimes and herbivore populations, nonnative species introductions, and atmospheric pollution... There has been no return to presettlement conditions because of continuing low-level disturbance and perhaps insufficient recovery time.”).

³⁸ DellaSala et al., *Mature and Old-Growth Forest Contributions to Large-Scale Conservation Targets in the Conterminous USA*, 5 *FRONTIERS IN FORESTS AND GLOB. CHANGE* 1, 1 (2022) (Exhibit 21).

Forest Service, 9% by the Bureau of Land Management, and 3% by the National Park Service.³⁹ These forests simultaneously support the highest concentrations of drinking water source areas, at-risk ecosystems, and aboveground living biomass. Despite their exceptional value, the vast majority of mature forests on federal lands (76%), storing approximately 10.64 gigatons of carbon dioxide, are unprotected from logging.⁴⁰

Of the mature forests identified by Dr. DellaSala's study, old-growth represents a tiny fraction in each region of the United States outside of Alaska, demonstrating the need for policies that put a greater percentage of forests on a path to recover late successional forests. In the Eastern U.S., old-growth comprises just 1.6% of South-Central U.S. forests, 1.1% of the Upper Midwest forests, .5% of Southeast U.S. forests, and .4% of forests in the Northeast.⁴¹

Logging is the single greatest influence on the amount and extent of mature forests across the U.S. and is easily the most preventable threat to mature forests when compared to other disturbances. A 2013 study found that “[l]ogging is a larger cause of adult tree mortality in northeastern U.S. forests than all other causes of mortality combined.”⁴² This finding was reinforced in another study from 2018: “[Logging] comprises more than half of all mortality (on a volume basis), making logging the predominant disturbance—natural or anthropogenic—affecting forest ecosystems in the region.”⁴³

This level of timber harvest has a significant impact on forest carbon—far greater than any other factor. Timber harvest drives 92% of annual forest carbon losses in the U.S. South, 86% in the North, and 66% in the West. For comparison, the second greatest impacts on forest carbon in each region are as follows: West: fire (15%); North: insect damage (9%); South: wind damage (5%).⁴⁴

As evidenced above, the Northeast has lost a greater percentage of its old-growth forests than perhaps any other region of the U.S. Private lands across New England are managed more

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ EASTERN OLD-GROWTH FORESTS. PROSPECTS FOR REDISCOVERY AND RECOVERY 18-31 (Mary Byrd Davis ed., 2d ed. 1996).

⁴² Charles D. Canham et al., *Regional Variation in Forest Harvest Regimes in the Northeastern United States*, 23 *ECOLOGICAL APPLICATIONS*, 515, 515 (2013), available at http://www.uvm.edu/giee/pubpdfs/Canham_2013_Ecological_Applications.pdf (Exhibit 22).

⁴³ Brown et al., *Timber Harvest as the Predominant Disturbance Regime in Northeastern U.S. Forests: Effects of Harvest Intensification*, 9 *ECOSPHERE* 1, 1 (2018) (Exhibit 23) (hereinafter Brown et al. (2018)).

⁴⁴ Harris et al., *Attribution of Net Carbon Change by Disturbance Type Across Forest Lands of the Conterminous United States*, 11 *CARBON BALANCE AND MANAGEMENT* 1, 12 (2016), available at <https://doi.org/10.1186/s13021-016-0066-5> (Exhibit 24) (hereinafter “Harris et al.”).

intensively for timber harvest compared with federal public lands.⁴⁵ This is especially pronounced in the northern New England states of Maine, New Hampshire, and Vermont, where the vast majority of forests are privately owned (~94% of Maine). Recent modeling suggests that logging, not forest conversion, will continue to be the greatest factor in regional aboveground forest carbon over at least the next 50 years.⁴⁶

Although there is a large amount of maturing forest (80-100 years old) across the landscape, future harvests will target these forests where they occur on private lands.⁴⁷ Despite widespread forest maturation, rates of timber harvest in New England are such that trends in regional amounts of late successional forest structure are static, and the amount of large diameter standing snags is declining.⁴⁸ “Even though forests of the Northeast are aging, changes in silviculture and forest policy are necessary to accelerate restoration of old-growth structure.”⁴⁹ The WMNF, containing a relatively high percentage of mature forests compared to private lands, is an especially important location to protect intact mature forests so that New England can recover regionally-significant amounts of late successional forest. Although passive management is most often all that is required to restore old forest conditions,⁵⁰ it takes centuries to develop forest complexity, requiring permanent protection from timber harvest if restoration is to be successful.⁵¹

⁴⁵ Gunn et al., *Late-Successional and Old-Growth Forest Carbon Temporal Dynamics in the Northern Forest (Northeastern USA)*, FOREST ECOLOGY & MGMT. (2013), available at <https://www.manomet.org/wp-content/uploads/old-files/2013%20Gunn%20et%20al%20%20LOSG%20Carbon%201-s2%200-S0378112713006907-main.pdf> (Exhibit 45) (hereinafter “Gunn et al.”).

⁴⁶ Duveneck and Thompson, *Social and Biophysical Determinants of Future Forest Conditions in New England: Effects of a Modern Land-Use Regime*, 55 GLOB. ENVIRONMENTAL CHANGE 115, 122, 124, 125 (March 2019) (Exhibit 25) (hereinafter “Duveneck and Thompson”).

⁴⁷ *Id.*

⁴⁸ Ducey et al., *Late-Successional and Old-Growth Forests in the Northeastern United States: Structure, Dynamics, and Prospects for Restoration*, 4 FORESTS 1055, 1069 (2013), available at https://www.researchgate.net/publication/260516680_Late-Successional_and_Old-Growth_Forests_in_the_Northeastern_United_States_Structure_Dynamics_and_Prospects_for_Restoration (Exhibit 26).

⁴⁹ *Id.* at 1055, 1056.

⁵⁰ See Zaino et al. (2018) at 16 (Exhibit 16).

⁵¹ Watson et al., *The Exceptional Value of Intact Forest Ecosystems*, NATURE ECOLOGY & EVOLUTION (2018), available at https://www.researchgate.net/profile/John-Robinson-18/publication/323399911_The_exceptional_value_of_intact_forest_ecosystems/links/5a9b0482aca2721e3f3018b2/The-exceptional-value-of-intact-forest-ecosystems.pdf (Exhibit 27). Di Marco et al., *Wilderness Areas Halve the Extinction Risk of Terrestrial Biodiversity*, 573 NATURE 582 (2019) (Exhibit 28); Dinerstein et al., *A Global Safety Net to Reverse Biodiversity Loss*, 6 SCI. ADVANCES 1 (Sept. 2020) (Exhibit 29) (hereinafter “Dinerstein et al.”); Miller et al.

The recently-released Forest Service Climate Adaptation Plan notes that mature and old-growth forests are “often viewed as ideal candidates for increased conservation efforts, and are frequently found within areas designated as wilderness or roadless or other management areas where timber harvest is precluded.”⁵² The Forest Service Climate Adaptation Plan is wise to highlight the inverse relationship between timber harvest levels and amounts of mature and old-growth forests. As implied by the Forest Service Climate Adaptation Plan, there is no greater threat to the extent of mature and old-growth forests on federal public lands than logging.

Despite the clear scientific evidence for increasing amounts of old, wild forest, only 3% of New Hampshire (and a similar amount across New England) is managed to permanently protect or restore old forest conditions, with a primary emphasis on supporting native biodiversity, natural processes, and climate stabilization.⁵³ Since Standing Trees’ comments on the Draft EA, additional science supporting permanent protection and restoration of old forests has been published, including a new study released in early 2023 questioning the major problems with forest management promoting early successional habitat.⁵⁴

The Forest Service’s proposal that providing non-shade conditions for some species of trees to thrive also is not in agreement with what we know of how large trees can transfer nutrients to smaller trees through fungal communities in the soil.⁵⁵ It is also at odds with how healthy forests mature and support the complex food web and balance in a natural undisturbed forest ecosystem.

The public is left to wonder whether this “need for management” is entirely based on commercial interests for a more profitable forest—as selective and clearcutting extirpate the largest, most profitable trees for timber.

For these reasons, the forest management practices embodied by this Project are increasingly contrary to scientific evidence, and the Final EA makes no effort to reckon with the

(2018) (Exhibit 18); Miller et al., *National Parks in the Eastern United States Harbor Important Older Forest Structure Compared with Matrix Forests*, 7 ECOSPHERE (2016), available at https://www.researchgate.net/profile/Aaron_Weed/publication/305484577_National_parks_in_the_eastern_United_States_harbor_important_older_forest_structure_compared_with_matrix_forests/links/57961bdd08aed51475e542a7/National-parks-in-the-eastern-United-States-harbor-important-older-forest-structure-compared-with-matrix-forests.pdf (Exhibit 30) (hereinafter “Miller et al. (2016)”).

⁵² Forest Service Climate Adaptation Plan 1, 13 (July 2022), https://www.usda.gov/sites/default/files/documents/4_NRE_FS_ClimateAdaptationPlan_2022.pdf (Exhibit 31).

⁵³ See Moomaw et al., *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, 2 FRONTIERS IN FOREST AND GLOB. CHANGE 1, 3 (2019), available at <https://www.frontiersin.org/articles/10.3389/ffgc.2019.00027/full> (Exhibit 32).

⁵⁴ Kellett et al., *Forest-clearing to Create Early-successional Habitats: Questionable Benefits, Significant Costs*, 5 FRONTIERS FOR GLOB. CHANGE 1 (Jan. 9, 2023) (Exhibit 3).

⁵⁵ Simard et al., *Net Transfer of Carbon Between Ectomycorrhizal Tree Species in the Field*, 388 NATURE 579 (Aug. 7, 1997) (Exhibit 4).

growing body of science supporting greater protection of the Project area’s mature forests. In conflict with NEPA, the Final EA fails to address and explain opposing viewpoints and contrary scientific information along with the agency’s rationale for choosing one viewpoint over another.⁵⁶

3. *Failure to Address Recent Executive Orders on Forest Protection*

As discussed in our comment on the Draft EA, and above in this objection, there is clear scientific evidence that counsels in favor of protecting mature forests. Aggressive measures are necessary to stave off climate and extinction catastrophe.⁵⁷ This vision was endorsed by the Administration through Executive Orders 14,072 and 14,008. Like the Draft EA, the Final EA fails to explain how proposed logging will comply with either Executive Order. Like the Draft EA, the Final EA fails to explain how proposed logging will comply with either Executive Order.

Among other things, Executive Order 14,008 calls on the federal government to “protect America’s natural treasures, increase reforestation, improve access to recreation, and increase resilience to wildfires and storms” and commits the Forest Service to measures to help “achieve the goal of conserving at least 30 percent of our lands and waters by 2030.”⁵⁸

Executive Order 14,072 provides that the Biden Administration “will manage forests on Federal lands, which include many mature and old-growth forests, to promote their continued health and resilience; retain and enhance carbon storage; conserve biodiversity; mitigate the risk of wildfires; enhance climate resilience; enable subsistence and cultural uses; provide outdoor recreational opportunities; and promote sustainable local economic development.” To achieve this policy, the Administration, including the Forest Service, is directed to prepare an inventory of mature and old-growth forests, must analyze threats to mature and old-growth forests on Federal lands, and will implement policies to “institutionalize climate-smart management and conservation strategies that address threats to mature and old-growth forests on Federal lands.”

On April 20, 2023, the Forest Service released a report titled “Mature and Old-Growth Forest: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management” as required under Executive Order 14,072.⁵⁹ Simultaneously, the Forest Service sent a letter to Regional Foresters stating that “[w]e will shortly issue

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

⁵⁷ Ceballos et al., *Vertebrates on the Brink as Indicators of Biological Annihilation and the Sixth Mass Extinction*, 117 PNAS 13596 (June 2020) (Exhibit 33).

⁵⁸ *See* Exec. Order No. 14,008, §§ 214, 216.

⁵⁹ *Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management 1* (Apr. 2023), <https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf> (Exhibit 11).

guidance on using this information.”⁶⁰ On April 21, 2023, the Forest Service published an Advance Notice of Proposed Rulemaking that seeks input on how the agency should “adapt current policies to protect, conserve, and manage the national forests and grasslands for climate resilience,” including “concerns about...past and current management practices, including inappropriate vegetation management.”⁶¹

The scientific underpinnings of this Executive Order are rooted in recent peer-reviewed studies that investigate climate change mitigation and the intersection of forest ecology and forest carbon. Climate change is driving and exacerbating a range of threats to New Hampshire, the New England region, and the globe. The Intergovernmental Panel on Climate Change Report released in February 2022 found, “[s]afeguarding biodiversity and ecosystems is fundamental to climate resilient development ... and to [climate] mitigation and adaptation.”⁶² On November 12, 2021, the U.S. joined 140 other nations in signing a commitment at the COP 26 United Nations Climate Change Conference in Glasgow, Scotland. The “Glasgow Leaders’ Declaration on Forests and Land Use” promised to “to halt and reverse forest loss and *land degradation* by 2030” (emphasis added).⁶³

On the global scale, forest protection represents approximately *half or more* of the climate change mitigation needed to hold temperature rise to 1.5 degrees Celsius.⁶⁴ New Hampshire may be a relatively small state, but its temperate deciduous forests are among the planet’s most effective carbon sinks. In the United States, New England’s *in-situ* carbon storage potential is second only to that of the Pacific Northwest, but carbon storage levels remain artificially low due to timber harvest frequency and intensity.

The Final EA fails to acknowledge Executive Order 14,072 or incorporate the Forest Service’s work to implement its directives. Indeed, the Final EA was released without any reference to the availability of the initial inventory and report, and prior to issuance of guidance to Regional Foresters and completion of proposed rulemaking, foreclosing the opportunity to

⁶⁰ Letter from Chris French, Forest Service Deputy Chief, to Regional Foresters (Apr. 18, 2023) (Exhibit 5).

⁶¹ Letter from Chris French, Forest Service Deputy Chief, re: Advance Notice of Proposed Rulemaking (Apr. 21, 2023) (Exhibit 12).

⁶² CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY – WORKING GROUP II CONTRIBUTION TO THE SIXTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 32 (Pörtner et al., eds., 2022), *available at* https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf (Exhibit 34).

⁶³ Declaration on Forests and Land Use (Feb. 11, 2021), <https://webarchive.nationalarchives.gov.uk/ukgwa/20230418175226/https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>.

⁶⁴ Erb et al., *Unexpectedly Large Impact of Forest Management and Grazing on Global Vegetation Biomass*, 553 NATURE 73 (2018), *available at* https://research.vu.nl/ws/files/118980188/Nature25138_Unexpectedly_large_impact_of_forest_management_and_grazing_on_global_vegetation_biomass.pdf (Exhibit 35) (hereinafter, “Erb et al.”).

protect the very mature forest the Executive branch and the national leadership of the Forest Service are now setting out to protect. The public cannot assess this Project's compatibility with Executive Order 14,072. Given this guidance and the presence of mature forest in the Project area, proceeding with this project without further analysis would irretrievably commit limited resources against Administration policy.

The Forest Service has recognized that current scientific standards and the instruction of Executive Orders 14,072 and 14,008 require it to re-examine projects in the planning process. For example, the Forest Service recently withdrew the Flat Country Project in Oregon because the proposed project was inconsistent with Executive Orders 14,072 and 14,008.⁶⁵ Of concern was the project's purpose to regenerate younger age classes and the negative impacts the treatments would have on mature forest characteristics.⁶⁶

The Forest Service should similarly withdraw or revise the Project and other Forest projects based on similar assumptions. This is particularly true because the Forest Plan gives the Forest Service a distinct advantage in meeting its obligations by already clearly defining mature, old, and old-growth forests. The Forest Service has identified extensive mature forests in the Peabody West IRP project area. Yet instead of protecting those mature forests, the Project proposes to engage in logging them. Until detailed analysis in the form of an EIS is completed to comply with Forest Plan and Executive Order requirements to conserve mature and old-growth forests, the Peabody West IRP cannot legally proceed under NEPA and NFMA.

4. *Failure to Show Compliance with the Forest Plan*

The Final EA fails to show the Project's compliance with the Forest Plan—an essential component of analyzing the Project's impacts on vegetation and forest health in the context of the Forest Plan's standards and guidelines on these issues.

Standard S-3 of the Forest Plan's Forest-Wide Management Direction states that "Timber harvest is prohibited in old growth forest."⁶⁷ Further, Guideline G-1 states that "Outstanding

⁶⁵ *Flat Country Regional Review*, U.S. FOREST SERVICE, <https://www.fs.usda.gov/detail/r6/landmanagement/planning/?cid=fseprd1080564> (last visited June 12, 2023).

⁶⁶ FLAT COUNTRY PROJECT REVIEW REPORT, U.S. FOREST SERVICE 1, 12 (Sept. 27, 2022), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd1080562.pdf.

⁶⁷ WMNF Plan 2-13. Old-growth is defined in the Forest Plan as "Uneven-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.

natural communities should be conserved.”⁶⁸ The Forest Plan goes beyond protections for *existing* old-growth forest, however, clearly looking to how the Forest Service can facilitate recovery of old-growth forest across a larger percentage of the forest in the future. The Forest Plan defines old forest as beginning at 70 years of age in Aspen-birch habitat types, 90 years of age in Spruce-Fir, 120 years of age in Northern hardwoods, Mixed wood, Oak-Pine, and Hemlock.⁶⁹ The Forest Plan defines Old Forest Habitat as: “Desired habitat conditions start with those for mature forest and can include greater size, decadence, structural complexity, etc. *No harvest will occur in stands identified to provide old forest habitat*” (emphasis added).⁷⁰ From the Final EA, which denies that the Project affects any old forests, it is impossible to discern whether any portions of the Project area have the potential to provide old forest habitat and to conclude that the Project complies with the Forest Plan’s protections for such habitat.

Moreover, in conflict with the Forest Plan’s guidelines, the Peabody West IRP proposes extensive even-aged management in mature stands within the Project area, 79% of which is classified as Mature.⁷¹ The Forest Plan’s definition of mature forest suggests that uneven-aged harvest methods may be appropriate in mature forests in some circumstances but does not endorse any even-aged management: “*Depending on site conditions, thinning and uneven-aged harvest methods can be used in this habitat without negatively impacting habitat quality. Some uneven-aged harvest may enhance vegetative and structural diversity*” (emphasis added).⁷² Despite this instruction to avoid even-aged management in mature forest habitat, the Project proposes extensive even-aged management. Notwithstanding numerous indications that even-aged management will have the most adverse environmental impacts of the Project’s various silvicultural treatments, the Final EA never analyzes this conflict. Contrary to the Forest Plan, proposed management activities within the Project area will degrade habitat quality.

Requested Remedy: The Forest Service should complete an EIS to fully analyze the Project’s impacts to vegetation and forest health, developing an adequate range of alternatives and taking into account the analysis required under the WMNF Plan, Executive Order 14,072, and Executive Order 14,008.

⁶⁸ WMNF Plan 2-13.

⁶⁹ WMNF Plan Appendix D-2.

⁷⁰ WMNF Plan Abbreviations, Acronyms, and Glossary at 21.

⁷¹ Habitat Rationale at 9. The 2005 WMNF Forest Plan defines Mature Forest as “Stands in which the overstory is in the mature age class. Mature forest habitat is typically made up of trees that are eight inches or more in diameter. Mortality is just beginning in these stands, resulting in a few scattered canopy gaps and a small number of snags and cavities in the overstory. Most snags and down logs are small in diameter and within the intermediate or understory layers.” WMNF Plan Abbreviations, Acronyms, and Glossary at 18. The mature age class ranges from 40-89 years for Spruce-Fir habitat types, 60-119 years for Mixed wood and Northern hardwood, 40-69 years for Aspen-birch, and 70-119 years for Oak-Pine and Hemlock. WMNF Plan Appendix D-2.

⁷² WMNF Plan Abbreviations, Acronyms, and Glossary at 18.

B. Endangered, Threatened, and Other Sensitive Species

The Final EA and supporting documentation provide virtually no Project-specific analysis of impacts to endangered, threatened, and sensitive species. The Final EA references the Peabody West IRP Biological Evaluation, which states that three federally listed or proposed species and seventeen Regional Forester Sensitive Species have potential to occur in the analysis area.⁷³ What information is provided suggests that the Project, in fact, will adversely affect listed species in violation of the ESA.

Based on the Biological Evaluation, the Final EA ultimately determined that the Proposed Action may affect, but is not likely to adversely affect, the endangered NLEB, that the Project would have no effect on the threatened Canada Lynx, and that the Project would not jeopardize the continued existence of the tricolored bat, which is proposed to be listed as endangered.

However, the Forest Service failed to provide Biological Assessments (“BA”) for these species as part of the documentation for this Project. As further detailed below in this Objection, a project- and species-specific BA is required to “evaluate the potential effects of an action on listed and proposed species...[to] determine whether any such species or habitat are likely to be adversely affected by the action and is used in determining whether formal consultation or a conference [with the U.S. Fish and Wildlife Service (“USFWS”)] is necessary.”⁷⁴ Without more specific BAs, the public lacks important information related to Federally listed and proposed listed species that might be impacted in the Project area. This information is necessary for the public to make informed comments and objections, including regarding the Project’s compliance with the ESA. As discussed in more detail in Section VII below, it appears, in particular, that the Forest Service’s generic approach to protection of the now-endangered NLEB rather than a site- and Project-specific approach runs afoul of the ESA.

Furthermore, according to the Forest Plan:

The White Mountain National Forest will provide sufficient habitat and protection to preclude the need for species listing under the Federal Endangered Species Act due to National Forest habitat conditions or effects of activities. For species currently listed under the Federal Endangered Species Act or designated Regional Forester’s sensitive species, the Forest Service will contribute to conservation and recovery of species and their habitats.⁷⁵

As previously raised in our comment on the Draft EA, NLEB habitat requirements are the opposite of the type of habitat that will be generated from the Project.⁷⁶ According to the

⁷³ Final EA at 25.

⁷⁴ 50 C.F.R. § 402.12.

⁷⁵ WMNF Plan 1-1, 1-8.

⁷⁶ Standing Trees Comments at 12 (Exhibit 36).

USFWS Species Status Assessment Report for the NLEB, dated March 22, 2022, the bat depends on mature and old forests for roosting and foraging.⁷⁷ Preferred roosting habitat is large diameter live or dead trees of a variety of species, with exfoliating bark, cavities, or crevices. Bats change roosts approximately every two days,⁷⁸ and females often return to the same maternity area over multiple years.⁷⁹ Additionally, “mature forests are an important habitat type for foraging NLEBs[,]” and “most foraging occurs . . . under the canopy . . . on forested hillsides and ridges.”⁸⁰ Furthermore, NLEBs “seem to prefer intact mixed-type forests . . . for forage and travel rather than fragmented habitat or areas that have been clear cut.”⁸¹

The WMNF, including the Project area, contains extensive mature forests that are beginning to acquire the characteristics of an old forest, likely providing some of the highest-quality NLEB habitat in New England. Yet many of the silviculture treatment prescriptions in this Project involve the removal of mature trees.⁸²

In fact, the Biological Evaluation for the Project *concedes* potential negative effects on bats from the Project activities:

Direct effects to NLEB include timber harvest activities during the summer and fall seasons from trees over 3 inches diameter at breast height, especially during the pupping season (June 1-July 31). Bike trail construction would directly impact NLEB if large trees need to be removed. . . Indirect effects include those that affect bats through alteration of habitat, such as timber harvest and bike trail construction, which would remove potential roost trees when bats are not present. While there would still be ample roost trees available within the HMU and the surrounding area after the proposed timber harvests have been conducted, bats may be impacted if existing maternity roost trees are removed. Site fidelity is common in NLEB and females often return to the same maternity area over multiple years (U.S. Forest Service, Eastern Region 2014). While research has shown that an NLEB maternity colony can persist with a 20 percent reduction of the roost trees

⁷⁷ Species Status Assessment for the Northern long-eared bat (*Myotis septentrionalis*) Version 1.2, USFWS (Aug. 2022), <https://www.fws.gov/media/species-status-assessment-report-northern-long-eared-bat> (hereinafter “Species Status Assessment”) (Exhibit 1).

⁷⁸ *Id.* at 18.

⁷⁹ *Peabody West Integrated Resource Project: Biological Evaluation*, U.S. FOREST SERVICE, 7 (Apr. 2023), <https://usfs-public.app.box.com/v/PinyonPublic/file/1200243326958> (hereinafter “Biological Evaluation”).

⁸⁰ Species Status Assessment at 18 (Exhibit 1).

⁸¹ *Id.* at 18-19 (Exhibit 1).

⁸² For example, an estimated 30 acres will be clear-cuts with reserves, which “would result in an immediate change from mature to regeneration age structure.” Final EA at 6.

associated that colony, which would be consistent with the ephemeral nature of snags (Silvas, Ford and Britzke 2015), there is still a risk of impacting maternity colonies with the degree of tree removal proposed.⁸³

Despite these conceded impacts and risks, the Forest Service has conducted no Project-specific analysis to characterize the risks to NLEB from Project activities fully, nor are there any site-specific mitigation measures incorporated into the Final EA or DDN.

In combination with recently approved projects and anticipated logging and tree-cutting projects (including the Wanosha Integrated Resource Project, Sandwich Vegetation Management Project, Lake Tarleton Integrated Resource Project, Lost River Integrated Resource Project, and others), WMNF is set to eliminate or degrade several thousand acres of NLEB habitat across a large region. As discussed in further detail below, the Forest Service failed to evaluate the cumulative impact of these combined and geographically proximate projects.

Failing to protect the NLEB is a violation of the ESA and NEPA, which provides an independent obligation that agencies continue to take a “hard look” at project impacts. Where “new circumstances or information” arise that are “relevant to environmental concerns and bear[] on the proposed action or its impacts,” and “a major Federal action remains to occur,” the agency must prepare supplemental NEPA documentation.⁸⁴ Additionally, one of the objectives listed in the Forest Plan states:

Within five years of listing, [the Forest Service will] develop conservation approaches for all sensitive species. Biological diversity will be conserved by maintaining viable reproducing populations for all native plant and animal species. For species where the Forest alone cannot support a viable population, species persistence will be maintained, and the Forest Service will contribute to maintaining or improving viability where possible.⁸⁵

To our knowledge, the Forest Service has not developed conservation approaches for all sensitive species within the WMNF that were listed five or more years ago. If it has, these approaches are not apparent in the Biological Evaluation. The Biological Evaluation provides generic information (some of which is controversial and conflicts with more accurate and recent scientific studies)⁸⁶ supporting the Forest Service’s assertion that federally listed and sensitive

⁸³ Peabody West Integrated Resource Project: Biological Evaluation and Wildlife Report 7 (Apr. 20, 2023) (hereinafter “Biological Evaluation”).

⁸⁴ 40 C.F.R. § 1502.9(d). *See Marsh v. Or. Natural Resources Council*, 490 U.S. 360, 374 (1989) (agency must at least take “hard look” at environmental impacts of planned action, even after proposal has received initial approval).

⁸⁵ WMNF Plan at 1-8.

⁸⁶ *See, e.g.*, Species Status Assessment at 18-19 (Exhibit 1) (describing NLEB preferred habitat, including foraging habitat).

species will not be impacted by the Project, but it fails to substantially address any conservation methods and recovery strategies for actually protecting these species.

Through the completion of an EIS, the Forest Service would have an opportunity to do an in-depth analysis of the Project's impacts on endangered, threatened, and sensitive species and to ensure their protection.

Requested Remedy: The Forest Service should seek additional project-specific consultation from USFWS and complete an EIS to ensure adequate measures for species survival and protection.

C. Historic and Cultural Resources

In our comment on the Draft EA, we urged additional analysis of historic and cultural resources in an EIS, including resources of the Abenaki people. One of the goals listed in the WMNF Plan states that “[t]he White Mountain National Forest will identify, evaluate, preserve, protect, stabilize, interpret, and when necessary, mitigate for loss of heritage resources at a Forest-wide and project level.”⁸⁷ The Final EA does not realize this goal, nor does it fulfill NEPA's required “hard look” at impacts to these resources.

In fact, the Final EA provides virtually no discussion of Project impacts on historic and cultural resources, apparently limiting its analysis to the presence of sites eligible for listing on the National Register of Historic Places—which is salient for compliance with the National Historic Preservation Act but insufficient for NEPA purposes—and concluding none exist.⁸⁸ The Final EA does not disclose whether there is any supporting documentation for this conclusion.

By completing an EIS, the Forest Service would have an opportunity to complete a full analysis of the historic and cultural resources within the Project area, ensure the protection of these resources, and properly provide this information to the public.

Requested Remedy: The Forest Service should complete an EIS to further determine historic and cultural resources within the Project area and means for protecting these resources.

D. Climate Impacts and Resilience

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 New England's oldest and most carbon-dense ecosystems. The insubstantial, one-paragraph climate change analysis in the Final EA fails to address the unique values of the WMNF and is inconsistent with Council on Environmental Quality (“CEQ”) guidance, the Forest Service Climate Adaptation Plan, Executive Order 14,072, and Executive Order 14,008.

⁸⁷ WMNF Plan 1-6.

⁸⁸ Final EA at 27, 30.

By contrast, the Final EA, and the 3-page Project-Level Carbon Assessment it summarizes, cursorily claims that the Project will have negligible climate impacts and even incorrectly implies that prescribed treatments will enhance the WMNF's ability to withstand climate change. NEPA requires agencies to address and explain opposing viewpoints and contrary scientific information along with their rationale for choosing one viewpoint over another.⁸⁹ The Forest Service's analysis provides virtually no references to any material in opposition to its conclusions, despite voluminous references provided by Standing Trees on multiple occasions with reference to this Project and elsewhere.⁹⁰

As discussed in Standing Trees' prior comments and above in this objection, New England's carbon storage levels remain artificially low due to timber harvest frequency and intensity. Timber harvest accounts for 86% of annual forest carbon loss across the Northeast U.S. The Forest Service incorrectly implies that the prescribed treatments will enhance the forest's ability to absorb carbon.⁹¹ The Forest Service concludes carbon initially emitted from the proposed action would only have a *temporary influence* on emission concentrations because as the forest regrows, carbon is removed from the atmosphere.⁹² This is based on a common misconception that young forests are better than old at removing carbon, and ignores strong scientific evidence that carbon storage and sequestration is maximized in un-logged stands in northern New England.⁹³ Old forests store more carbon than young forests, and they continue to accumulate carbon over time.⁹⁴ The rate of carbon sequestration actually increases as trees age.⁹⁵ As raised in our comment, recent studies show that among land uses in New England, timber harvest is the leading cause of tree mortality⁹⁶ and has the greatest impact on aboveground carbon storage.⁹⁷ Forests in New Hampshire are still recovering from extensive clearing in the

⁸⁹ 40 C.F.R. § 1502.9(b); *Bark*, 958 F.3d at 871.

⁹⁰ *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 444 F. Supp. 3d at 858-59.

⁹¹ Harris et al. (Exhibit 24).

⁹² Final EA at 24.

⁹³ Keeton et al., *Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States* 57 FOREST SCIENCE (Jan. 18, 2011) (Exhibit 37).

⁹⁴ Keith et al., *Re-evaluation of Forest Biomass Carbon Stocks and Lessons from the World's Most Carbon-Dense Forests*, 106 PNAS 11635 (July 14, 2009) (Exhibit 38); Luysaert et al., *Old-growth Forests as Global Carbon Sinks*, 455 NATURE 213 (2008) (Exhibit 39); Leverett et al., *Older Eastern White Pine Trees and Stands Sequester Carbon for Many Decades and Maximize Cumulative Carbon*, 4 FRONTIERS FOR. GLOB. CHANGE 1 (May 2021) (Exhibit 40); Thom et al. (Exhibit 19).

⁹⁵ Stephenson et al., *Rate of Tree Carbon Accumulation Increases Continuously with Tree Size*, 507 NATURE 90 (Jan. 2014) (Exhibit 41).

⁹⁶ Brown et al. (2018) (Exhibit 23).

⁹⁷ Duveneck and Thompson (Exhibit 25).

eighteenth and nineteenth centuries. Timber harvesting in New England has been found to have a larger effect on aboveground carbon storage than forest conversion to non-forest uses.⁹⁸

On January 9, 2023, CEQ released Interim Guidance for agencies to “make use of immediately” when considering greenhouse gas emissions and climate change under NEPA. This guidance had yet to be released upon the submission of our comment on the Draft EA. Section VII of the CEQ guidance states, “agencies should consider applying this guidance to actions in the EIS or EA preparation stage if this would inform the consideration of alternatives or help address comments raised through the public comment process.”⁹⁹ Our comments raised the issue of the Forest Service’s failure to adequately consider climate change impacts. Yet, the CEQ guidance—now in effect and directly applicable to these concerns—is entirely absent from the climate change analysis section of the Final EA.

The CEQ guidance 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.”¹⁰⁰ Agency decisions should be based on the best available science and account for the urgency of the climate crisis.¹⁰¹ The guidance clarifies “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.”¹⁰² Yet, the Peabody West IRP Final EA explicitly states: “[p]roposed project activities affect a relatively small amount of forest land and carbon and, in the short-term, might contribute an extremely small quantity of greenhouse gas emissions relative to national and global emissions,” in blatant violation of CEQ guidance.¹⁰³ As CEQ has concluded, this approach “is not a useful basis for deciding whether or to what extent to consider climate change effects under NEPA.”¹⁰⁴ In addition, no mitigation measures were considered. We cannot foresee all the ways in which the Forest Service fails to comply with the CEQ guidance because there was no attempt to abide by it.

Moreover, the Forest Service’s approach to assessing climate impacts of the Peabody West IRP is not in compliance with Executive Orders 14,072 and 14,008. Both expressly direct the Forest Service to take much more extensive action than the insubstantial effort reflected in the Final EA. The Forest Service responded (in part) to Executive Order 14,008 with the publication of its Climate Change Adaptation Plan, which explicitly acknowledged that:

⁹⁸ *Id.*

⁹⁹ National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1,196 (Jan 9, 2023) (Exhibit 2).

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.* at 1201.

¹⁰³ Final EA at 24.

¹⁰⁴ 88 Fed. Reg. at 1,202.

[o]ld-growth and mature forests, and other forests with similar characteristics, are an ecologically and culturally important part of the National Forest System. They reside within a continuum of forest age classes and vegetation types that provides for a wide diversity of ecosystem values. Many forests with old-growth characteristics have a combination of higher carbon density and biodiversity that contributes to both carbon storage and climate resilience.¹⁰⁵

Executive Order 14,072 aims to “enhance carbon storage” and the “climate resilience” of our mature and old-growth forests.¹⁰⁶ The Forest Service “Climate Adaptation Plan” recognized the importance of areas protected from logging as it relates to climate-informed stewardship of mature and old-growth forests on Federal lands.¹⁰⁷ The Forest Service itself identifies carbon uptake and storage as “a major goal for the Forest Service” in helping ecosystems adapt to a changing climate.¹⁰⁸ This vision was further supported by Executive Order 14,008, which aimed to “conserve and restore public lands. . . increase reforestation. . . and address the changing climate” through the adoption of climate-smart forestry practices. The climate change analysis for the Peabody West IRP fails to mention Executive Orders 14,072 or 14,008 or the Forest Service’s own goals. Despite supposed policy alignment across the Executive branch, the Forest Service failed to ensure the Peabody West IRP is consistent with Executive Orders 14,072 and 14,008.

Furthermore, there is no such thing as an “extremely small quantity of greenhouse gas emissions” or effect on a “relatively small amount of forest land”¹⁰⁹ when on the global scale, forest protection represents approximately *half or more* of the climate change mitigation needed to hold temperature rise to 1.5 degrees Celsius.¹¹⁰ The one-paragraph climate change analysis ignores our remarkable forest ecosystems here in Northeastern North America and the unique potential of our temperate deciduous forests to contribute on a global scale to climate stabilization and resilience. The WMNF is an insurance policy against a changing climate and increasing extinction rates. It is irresponsible not to consider the high untapped capacity for carbon storage and sequestration of Eastern U.S. forests. The Final EA does not once mention the remarkable and unique capacity of the WMNF to contribute to climate stabilization and

¹⁰⁵ Forest Service Climate Adaptation Plan 1, 13 (Exhibit 31).

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 42.

¹⁰⁹ Final EA at 20.

¹¹⁰ Erb et al. (Exhibit 35).

resilience at a global scale.¹¹¹ Research published since the Final EA further supports the climate resilience value of mature forests in the Northeast, like those in the Peabody West HMU.¹¹²

On this issue of climate resilience, the Forest Service failed to acknowledge or consider the science that Standing Trees identified in our comment and in this objection. Federal courts have set aside NEPA analysis when an agency fails to respond to scientific analysis that calls into question the agency's assumptions or conclusions.¹¹³ The Forest Service cherry-picked the science it wished to use and failed to respond in a meaningful way to comments regarding climate change impacts. Ultimately, the Forest Service failed to take a hard look at climate change under relevant authorities.

Requested Remedy: The Forest Service should complete an EIS and additional analysis to address the unique climate resilience values of the WMNF and ensure compliance with relevant authorities including CEQ guidance, the Forest Service Climate Adaptation Plan, Executive Order 14,072, and Executive Order 14,008.

E. Water Quality Impacts

Notwithstanding the Final EA's discussion of the Clean Water Act ("CWA") and hydrology impacts in the Project area, and despite Standing Trees' request for further water quality impacts analysis, the Final EA still fails to take a hard look at impacts to water quality and the affected watersheds. In an EIS, the Forest Service should perform a thorough stratigraphic and hydrological analysis of the entire proposed treatment area and the adjoining forest area to fully grasp the Project's impacts on water quality, including the impacts of road construction/reconstruction as part of the Project and whether those impacts comply with the CWA.

From the Final EA, it is clear that this analysis is warranted, but that the Forest Service has not done it. As the Forest Service concedes, the Project runs afoul of Forest Plan guidelines

¹¹¹ Dinerstein et al. (Exhibit 29); Jung et al., *Areas of Global Importance for Conserving Terrestrial Biodiversity, Carbon and Water*, 5 NATURE ECOLOGY & EVOLUTION 1499 (2021) (Exhibit 47).

¹¹² Faison et al., *Adaptation and Mitigation Capacity of Wildland Forests in the Northeastern United States*, 544 FOREST ECOLOGY & MGMT. (forthcoming Sept. 15, 2023) (Exhibit 48); Faison et al., *The Importance of Natural Forest Stewardship in Adaptation Planning in the United States*, 5 CONSERVATION SCIENCE AND PRACTICE (Apr. 24, 2023), available at <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.12935> (Exhibit 49).

¹¹³ See *Bark*, 958 F.3d at 871; *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) (stating "[i]t would not further NEPA's aims for environmental protection to allow the Forest Service to ignore reputable scientific criticisms that have surfaced").

for water quality impacts, exceeding the standard for the percentage of basal areas removed in watersheds that contain a perennial stream. The Final EA reports these exceedances—in twelve watersheds affected by the Project, including five with perennial fish habitat—and then baselessly denies their significance without any supporting analysis.¹¹⁴ Similarly, the Forest Service admits that the Project includes fourteen acres of even-aged silvicultural treatment within one quarter-mile of nearly six river-miles of the Peabody River and the West Branch of the Peabody River, which are eligible for designation as wild and scenic rivers under the Wild and Scenic River Act. Without any analysis whatsoever, the Forest Service then asserts that the impacts from these treatments would not be irreversible or irretrievable so as to interfere with potential designation.¹¹⁵ NEPA requires more.

Pursuant to NEPA’s “hard look” mandate, an agency must rely on adequate baseline data that enables the agency to carefully consider information about direct environmental impacts and may not rely on outdated data to do so.¹¹⁶ Indeed, “establishing appropriate baseline conditions is critical to any NEPA analysis,” because without establishing a baseline, “there is simply no way to determine what effect the [project] will have on the environment and, consequently, no way to comply with NEPA.”¹¹⁷ It is unclear if baseline data was even gathered for use in the Final EA’s analysis because no analysis was presented. It is impossible for the public to evaluate or weigh in on the adequacy of the agency’s analysis without a baseline and current data on the actual water quality of the waters in the Project area.

Additionally, the Final EA states that there will be field visits prior to project implementation “to refine treatment unit boundaries and acres including modifications to address on-site conditions[,]” including potentially “reduc[ing acres] to meet visual and water quality objectives, to incorporate reserve patches of uncut trees in final harvest stands, and to incorporate protective buffers around features such as vernal pools, cultural resources, nest trees, and riparian

¹¹⁴ Final EA at 24. Further, the Forest Plan forest-wide guideline for vegetation management G-1 requires that “[n]o more than 15 percent of the area of watersheds of first and second order perennial streams should be treated with even-age regeneration methods in a five-year period.” WMNF Plan 2-1, 2-29. The Final EA makes no mention of this standard, or whether the Project complies with it.

¹¹⁵ Final EA at 26-27. The Forest Plan forest-wide guideline G-1 for Riparian and Aquatic Habitats states that “[t]ree cutting and harvest should not occur within 25 feet of the bank of mapped perennial streams[.]” WMNF Plan at 2-24. To our knowledge, no map of the project area was provided that shows both the location of perennial streams along with the harvest unit boundaries. The Final EA does not mention this guideline, nor does it make clear that these 25-foot buffers are integrated into the project design. Without this information, it is impossible to tell if this WMNF Plan guideline is being met, and further demonstrates the failure of the Forest Service to take a hard look at how the Project’s timber harvesting activities might impact water quality.

¹¹⁶ *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1083–87 (9th Cir. 2011); *Cascade Forest Conservancy v. Heppler*, 2021 WL 641614, at *17-*20 (D. Or. Feb. 15, 2021).

¹¹⁷ *Great Basin Res. Watch v. Bureau of Land Mgmt.*, 844 F.3d 1095, 1101 (9th Cir. 2016).

zones.”¹¹⁸ For the resources mentioned, these on-site baseline conditions should be identified *prior* to completing the NEPA analysis. The Forest Service should have used that information to describe the impacted environment, provide analysis of *how* these resources may be impacted, and describe how the agency might propose to address those impacts. Further, it is especially important that the treatment unit boundaries be defined prior to any implementation because of the potential for boundaries to stray into protected riparian areas.

Furthermore, the Final EA relies on the Albany South EA to support its assertion that impacts of timber harvesting on water quality and the basal area thresholds within the Project area are expected to be negligible.¹¹⁹ However, this reference illustrates the inadequacy of the Final EA. Nearly all the riparian and aquatic resources and water quality information contained in the Albany South EA is site-specific.¹²⁰ Although the document contains some broadly applicable indicators and measures for assessing effects to water resources, the Albany South EA dedicates the vast majority of its analysis to applying these standards to specific features within that project area. The Final EA here fails to conduct such an analysis, only mentioning general standards for the percent harvest levels at the basal area and the projected harvest percentages for the Peabody West IRP.¹²¹ In addition, many of the sources cited in the Albany South EA are outdated, going back as far as 35 years.¹²²

The lack of current site-specific data and sources to support the Forest Service’s conclusory assessment of water quality impacts make it impossible for the public to make informed opinions about the Project and its potential implications on water quality. The Final EA fails to meet the NEPA “hard look” standard as it relates to hydrology and water quality in the project area.

Requested Remedy: The Forest Service should complete an EIS and additional NEPA analysis to determine the impacts of the Project on hydrology and water quality.

¹¹⁸ Final EA at 5.

¹¹⁹ Final EA at 24 (citing to Albany South Integrated Resource Project: Final Environmental Assessment 131-149 (Dec. 2017), <https://www.fs.usda.gov/project/?project=39614> (hereinafter “Albany South EA”).

¹²⁰ *See generally id.*

¹²¹ Final EA at 23-24. The Albany South EA provides good context for what a proper analysis should look like as it relates to the hydrology and water quality impacts of a Forest Service project. The Albany South EA devotes 34 pages to sections on Water Resources and Riparian and Aquatic Habitat, each with subsections covering project-specific: existing conditions, effect indicators and measures, environmental consequences, various alternatives, direct and indirect effects to water quality, timber harvest impacts on water quality, fish habitat quality and productivity, cumulative effects, and climate change among others. Albany South EA at 130-164. By contrast, the Final EA here devotes a half-page to water quality impacts, and less than that to its analysis of wild and scenic river impacts. Final EA at 24, 26-27.

¹²² Albany South EA at 131.

F. Recreation

The Final EA also fails to undertake a “hard look” at recreational resources in two respects. First, as to the Project’s recreational development within the WMNF, the Final EA does not explain or analyze the recreational “needs” driving the proposals. Even the Recreation Specialist Report admits that the Forest Plan’s Forestwide Management Direction for Recreation, Guideline 4, states that:

No additional trails should be constructed or authorized unless clearly needed to: provide public access to the existing system, address resource impacts, resolve public safety issues, meet recreation management or accessibility goals, or best meet the recreation management approaches. New trails should be evaluated and prioritized consistent with supplemental direction in FSH 2309.18.¹²³

However, the Final EA notes that opportunities for both mountain biking and backcountry skiing in gladed terrain (as opposed to natural terrain) already exist nearby on private land.¹²⁴ No reasons are offered for why the Project serves a “clear [need],” as required by the Forest Plan, “to provide public access to the existing system, address resource impacts, resolve public safety issues, meet recreation management or accessibility goals, or best meet the recreation management approaches.” And the Project’s recreational proposals do have other resource impacts, including on vegetation, sensitive species, and other wildlife.¹²⁵ The cursory discussion of alignment of the proposals with the Recreation Opportunity Spectrum framework objections—in the Recreation Specialist Report, not the Final EA—does not cure the Final EA’s lack of explanations. The Final EA, therefore, fails to analyze the relationship between the Project’s recreational proposals and existing recreational opportunities and how the Project complies with Forest Plan direction.

Second, with respect to the logging elements of the Project, the Final EA contains no analysis of their impacts on existing recreational resources within the Project area. The Project area includes or abuts the well-used Dolly Copp Campground, numerous hiking trails within the WMNF and on nearby private land, including landmark trail connections to the Great Gulf Wilderness area immediately to the south; ski, snowmobile, and mountain biking trails running through the Project area; and the Appalachian Trail to the south and east—which appears to be obscured by the legend on the recreation map provided in the Final EA. The Final EA gives virtually no attention to the potential impacts of logging several thousand acres of mature forest

¹²³ Peabody West Recreation Effects Analysis 1 (Sept. 20, 2022) (hereinafter, “Recreation Specialist Report”).

¹²⁴ Final EA at 2, 3, 11, and 18.

¹²⁵ Final EA at 11-12.

on these recreational activities, other than to note and then dismiss them as minor and temporary in the Recreation Specialist Report.¹²⁶

Despite the close proximity of the iconic Appalachian Trail (or “AT”), there is little analysis of impacts to that resource and the multitude of hikers that use and enjoy it. Further, even though the Appalachian Trail is managed in conjunction with the National Park Service (“NPS”), there is no indication in the Final EA that the Forest Service consulted with NPS. Nor is there any indication that the Forest Service consulted with the Appalachian Mountain Club or the Dartmouth Outing Club. All of these groups are conspicuously absent from the list of “Agencies or Persons Consulted” in the Final EA.¹²⁷

The Forest Service must provide adequate analysis of project impacts and cumulative impacts on recreation. This should be evaluated within the context of the local project planning area and at the forest level because surrounding recreation areas will be felt most acutely at the local level. In addition, the WMNF Plan itself requires that such “projects must be evaluated in terms of their effects on both the individual sites and on Forest-wide development levels.”¹²⁸

Requested Remedy: The Forest Service should conduct an EIS to determine the impacts of the Project’s recreational and non-recreational elements on recreational and natural resources in the area.

G. Scenic Resources

On its face, the Final EA’s analysis of scenic resources is profoundly insufficient. The Final EA includes only a half-page of discussion addressing scenery within the Project area. The Scenery Specialist Report provides more detail but indicates that the analysis area for cumulative effects is the viewshed from just *four* public land viewpoints, and the timeframe is from 30 years in the past to 30 years in the future.¹²⁹ The Report further explains, “[t]his timeframe allows for all the harvested openings to fully restock, develop a full canopy of vegetation, and reach a height with enough spread and density to allow the shadow and textural differences to begin to blend with the adjacent surrounding.”¹³⁰ The Report also indicates that depending on the viewpoint, project impacts can be seen for up to a distance of 10 miles by the “casual observer.”¹³¹ Logging projects that can be seen up to 10 miles away and take 30 years to “begin

¹²⁶ Recreation Specialist Report at 2 (“[R]ecreation impacts would be minor and short term in nature. Recreation resources (e.g., trails and campgrounds, dispersed recreation) within the project area would experience noise, closures, or other disruptions in use associated with project construction or timber harvest activities.”).

¹²⁷ Final EA at 28.

¹²⁸ WMNF Plan at 2-17.

¹²⁹ Peabody West Integrated Resource Project Scenery Management Specialist Review and Summary (Jun. 17, 2022) (hereinafter “Scenery Specialist Report”).

¹³⁰ *Id.*

¹³¹ *Id.*

to blend” with their un-logged natural surroundings are clearly significant. All four of the viewpoints appear to be on the Appalachian Trail, the highly significant hiking trail discussed above.

The Project’s long-lasting eyesores will negatively impact the surrounding community and also the through-hikers and other users of the AT. Indeed, the Final EA and Scenery Specialist Report strikingly omit virtually any detailed discussion of the impacts on the AT or of the Project’s location in the shadow of some of the WMNF’s most scenic and protected landscapes in the Great Gulf Wilderness, Pinkham Notch, and the Mount Washington area to the south. The level of analysis in the Final EA and the Scenery Specialist Report fall far short of a meaningful assessment of the Project’s effects on this region’s treasured scenic resources.

Moreover, the Final EA concludes that scenic impacts are acceptable despite conceded violations of Forest Plan guidelines. The WMNF Plan mandates that “all management activities should meet or exceed Scenic Integrity Objectives established for the Forest through the Scenery Management System (“SMS”)[.]”¹³² The Scenery Management portion of the Forest Plan mandates that:

In evaluating cumulative effects for viewed landscapes from established concern level 1, open, higher elevation viewpoints affording expansive or large scale views, no more than 9 percent of the acreage within the view should be treated with regeneration vegetation management activities within a 30 year period. Total area affected during any one entry period with new regeneration treatment should not exceed 4 percent of the acreage. Assessment may need to be made from multiple viewpoints (that view a common land base). The assessment will apply to each view separately.¹³³

For areas with a “High” Scenic Integrity Objective, “most of the project area created openings should be minimally evident from trail, road, or use area vantage points. Maximum observed size should not exceed 4-5 acres. If openings occur, they should appear as natural occurrences and be well- distributed in the viewed landscape.”¹³⁴

The Final EA concedes that the proposed timber harvest prescriptions are inconsistent with the Forest Plan. According to the Final EA:

The proposed action includes three relatively large even-aged treatments: a 26-acre clearcut in unit 19, a 9-acre patch cut in unit 20, and the expansion of an existing permanent wildlife opening to about 19 acres. These proposals exceed the Forest Plan guideline G-3 for MA 2.1 land, which states maximum observed opening

¹³² WMNF Plan at 2-26.

¹³³ WMNF Plan at 3-6.

¹³⁴ *Id.*

size should not exceed 5 acres in areas with a high scenic integrity objective (Forest Plan, p. 3-6). Although each of these units would exceed this guideline, the larger acreage is intended to better meet project-level objectives for the Peabody West HMU, and to move the forest toward desired conditions consistent with the Forest Plan.

Consistent with Forest Plan direction, and in meeting the intent of guideline G-3 for scenery management, a design element is included which would minimize visual impacts of the three larger even-aged units (see Design Elements SCM-1).

In other words, the Final EA admits that the project parameters exceed what is allowed by the Forest Plan, without providing a reasoned explanation under NEPA and in violation of NFMA.¹³⁵ Incoherently and contrary to NFMA, the Final EA suggests that that the project-level goals should take precedence over the Forest Plan, provided that certain design elements are included to mitigate scenic impacts in some unmeasured manner. There is no scenario in which these unlawful impacts to scenic resources can be considered “not significant” and should not have received much more detailed analysis and mitigation through an EIS.

Because the Forest Service failed to consider significant impacts to scenic values, it should correct its errors through completion of an EIS.

Requested Remedy: The Forest Service should conduct an EIS to determine the true impacts that the Project will have on scenic resources in the area, including additional viewpoints from the Appalachian Trail.

H. Soils

The Final EA fails to provide any analysis, discussion, and clarity surrounding impacts on soil resources, let alone a “hard look” at the Project’s effects. In Standing Trees’ comment on the Draft EA, we urged additional analysis of impacts to Project area soils from road construction and logging. The Final EA provides no such analysis, instead referring to the Project’s planned adherence to “[best management practices] and Forest Plan standards and guidelines” to “ensure impacts to soils are minimized,” and a soil specialist report that does not appear in the project documentation at all¹³⁶

¹³⁵ See, e.g., *WildEarth Guardians v. Jeffries*, 370 F. Supp 3d 1208, 1233–34 (D. Or. 2019) (Inconsistency between the Forest Service’s supplemental final environmental impact statement and its forest plan violated NFMA by failing to protect endangered species, despite the plan’s “seasonal timing restrictions.”).

¹³⁶ Final EA at 23. A “Soils Background White Paper” is included in the supporting documents for the Final EA, but it includes no Project-specific analysis, instead discussing soil-related conditions on a Forest-wide basis and offering guidance for conducting project-based analysis.

Requested Remedy: The Forest Service should complete an EIS to determine detailed soil impacts that Project will have on the area.

I. Roadless Areas

The Final EA fails to take a “hard look” at the impacts of the Project’s timber management activities on affected roadless areas. The Final EA disavows any impacts whatsoever on designated roadless areas. However, the Roadless Effects Summary acknowledges that 600 acres are proposed for logging within the 17,000-acre Great Gulf Inventoried Roadless Area, including 80 acres of even-aged management.¹³⁷

Because the portion of the Great Gulf Inventoried Roadless Area proposed for logging was not inventoried prior to promulgation of the 2001 Roadless Area Conservation Rule, the WMNF claims that it had the discretion to allocate these lands to the General Forest Management (2.1) category in the 2005 Forest Plan. The Roadless Effects Summary suggests that the proposed logging will not disqualify the area from future consideration in a Chapter 70 Wilderness Inventory and Evaluation when the WMNF Forest Plan is revised. However, this merely addresses the *eligibility* of the lands for Chapter 70 review; it does not account for how logging will impact the landscape’s suitability or potential for a wilderness recommendation or designation by Congress, nor how the proposed logging will degrade those values associated with roadless areas, including clean water, intact forest habitats, and more.¹³⁸

Project activities threaten significant impacts to an area with outstanding natural resource value, and the Final EA fails to address them in violation of NEPA and in contravention of the Forest Service’s own intent to address impacts to roadless characteristics in these areas.

Requested Remedy: The Forest Service should complete an EIS to fully analyze the Project’s impacts on inventoried roadless areas that are eligible for future designation as protected wilderness or roadless areas.

J. Wildlife

The Final EA fails to acknowledge the Project’s impacts on wildlife and the important role that mature and old-growth forests play in this delicate ecosystem. The 2018 Vermont Conservation Design Natural Community and Habitat Technical Report is instructive for the state of New Hampshire and the White Mountain National Forest:

See Robert A. Colter, “Soils background information for how effects are determined for soil productivity” (Nov. 2021).

¹³⁷ Peabody West Wilderness and Roadless Areas Effects Analysis (May 18, 2022).

¹³⁸ Dietz et al., *The Importance of U.S. National Forest Roadless Areas for Vulnerable Wildlife Species*, 32 GLOB. ECOLOGY AND CONSERVATION 1, 1, 4 (Dec. 2021) (Exhibit 43); Talty et al., *Conservation Value of National Forest Roadless Areas*, 2 CONSERVATION SCI. AND PRAC. 1, 1, 11 (Nov. 2020) (Exhibit 44).

The state's native flora and fauna that have been here prior to European settlement are adapted to this landscape of old, structurally complex forest punctuated by natural disturbance gaps and occasional natural openings such as wetlands or rock outcrops. The complex physical structure of old forests creates diverse habitats, many of which are absent or much less abundant in younger forests.¹³⁹

What the White Mountain National Forest calls “old forests”—the forests that the Peabody West HMU’s “mature forests” are poised to become—are 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. 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.

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.¹⁴⁰ 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. Thus, the WMNF is an important concentration of such habitat within New England. When this habitat is fragmented or degraded through activities such as logging, these species experience increased threats from interactions with humans, predation, changes in microclimates, the spread of invasive species and ticks, and other fragmentation and edge effects.

The Final EA utterly fails to reckon with this evidence, instead conclusorily asserting the Project will benefit wildlife diversity by promoting younger forests through logging. Yet one of the Wildlife Objectives listed in the WMNF Plan is to “[m]aintain high quality mature forest and old forest habitats on a majority of the Forest,” as there is good reason for leaving mature forests intact.¹⁴¹ Our native ecosystems preserve—and present the opportunity to restore—the greatest levels of wildlife and biodiversity. The Forest Service cannot ignore the vast amount of scientific data showing how mature and old-growth forests support a wide range of wildlife. The Final EA’s discussion of wildlife is inadequate, and the completion of an EIS is necessary to determine the true impacts that the Project would have on wildlife in the area.

¹³⁹ Zaino et al. (Exhibit 16).

¹⁴⁰ Thorn et al., *The Living Dead: Acknowledging Life After Tree Death to Stop Forest Degradation*, 18 FRONTIERS IN ECOL. AND THE ENV’T 505 (2020) (Exhibit 42); Evans and Mortelliti, *Effects of Forest Disturbance, Snow Depth, and Intraguild Dynamics on American Marten and Fisher*, 13 ECOSPHERE 1 (Nov. 24, 2021) (Exhibit 17).

¹⁴¹ WMNF Plan at 1-20.

Requested Remedy: The Forest Service should the full range of the Project’s impacts on wildlife taking into account the ecological resource values of mature and old forest habitat and complete an EIS to determine the best practices for protecting wildlife and habitat.

K. Impacts of Road Construction

Although “Transportation” and the need for a transportation analysis is included as one of the “needs” for the project, there is no analysis of transportation or the impacts of roads in the Environmental Impacts discussion.¹⁴²

The Final EA did not analyze, or even mention, the potential for roads and skid trails to contribute to water quality issues through increased erosion and sedimentation, soil compaction resulting from the use of heavy machinery used to achieve the proposed road activities, and renewed fragmentation of wildlife habitat, among other things. For example, the new system road and extensive reconstruction of some system roads will, in combination, result in many miles of what are essentially new roads, likely in many locations where roads may have already been reclaimed by the forest. This is another example of a persistent theme of the Final EA of not identifying a baseline against which impacts can be measured. Because the existing condition of roads in the project area have not been described, it is impossible for the public to tell whether or not road reconstruction may result in significant impacts.

Requested Remedy: The Forest Service should complete an EIS to determine the impacts of road reconstruction in the Project area.

L. Cumulative Impacts

The Forest Service not only fails to provide virtually any details in the Final EA’s cumulative impacts analysis, but effectively denies that there will be any such impacts. When considered together, the combined resource impacts of relevant actions—past, present, and future—are both significant to the human environment and deeply troublesome.

The Forest Service is required by NEPA to consider the cumulative impacts of the Project.¹⁴³ Cumulative impacts are defined as “effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or persons undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.”¹⁴⁴ Cumulative effects analysis requires that the agency define and apply a consistent geographic scope in which to analyze cumulative

¹⁴² Final EA at 21.

¹⁴³ 40 C.F.R. § 1508.7.

¹⁴⁴ 40 C.F.R. § 1508.1(g)(3).

effects.¹⁴⁵ The geographic scope determines which nearby projects will be included in its analysis, and agencies “must provide support for its choice of analysis area[.]”¹⁴⁶

The Final EA ignores other ongoing or upcoming Forest Service projects that involve logging and other tree-cutting in the WMNF, including the Wanosha Integrated Resource Project, Sandwich Vegetation Management Project, Lake Tarleton Integrated Resource Project, Lost River Integrated Resource Project, and Hales Location Wildfire Resiliency Project, among others.¹⁴⁷ All of these projects involve substantial logging, carbon emissions, and/or habitat alteration or destruction. It is unclear whether the Forest Service has assessed the cumulative impacts of these anticipated future logging operations, as that information is absent from the Final EA and project record. It is also unclear whether the Forest Service has accounted for the amount of early successional habitat located on private lands adjacent to the project area and throughout the WMNF region.

The Final EA failed to identify or explain the temporal and geographic scopes of its cumulative impacts analysis for a majority of the resources. Although it acknowledges that such analysis must address activities “overlap[ping] in space and time with effects of the proposed project[.]”¹⁴⁸ it does not actually define that “space” or analysis area. As noted, it vaguely states that “these analysis boundaries vary by resource” and are “documented in the project record.”¹⁴⁹ In addition to its failure to define the geographic scope of the cumulative impacts analysis, the Final EA’s cumulative impacts analysis contains no actual analysis at all and does not even state whether the Project is expected to contribute cumulatively to resource impacts within the analysis area. The Forest Service cannot just make a blanket statement about impacts without supporting it with an actual geographic scope and analysis or some level of detail. As-is, the public has no way of actually evaluating the cumulative impacts of the Project because the public is not given any detail to look into the matter themselves.

Finally, as discussed in other sections of this Objection, shortly after the Forest Service’s issuing of the Final EA, the uplisting date of the NLEB went into effect pursuant to the ESA. The Forest Service was aware of the NLEB uplisting several months in advance, but the Final EA does not address it in its cumulative impacts section. However, the Forest Service did create a Biological Evaluation for the Project which includes a brief discussion of the NLEB. The Biological Evaluation indicates “the analysis area for cumulative effects for endangered, threatened, and [sensitive species] resulting from the activities included under the Proposed

¹⁴⁵ *League of Wilderness Defenders/Blue Mts. Biodiversity Project v. Connaughton*, 2014 WL 6977611, at *9-*11 (D. Or. Dec. 9, 2014).

¹⁴⁶ *Id.* at *9 (citing *Native Ecosystems Council v. Dombeck*, 304 F. 3d 886, 902 (9th Cir. 2002) and *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976)).

¹⁴⁷ *E.g.*, *White Mountain National Forest: Projects*, <https://www.fs.usda.gov/projects/whitemountain/landmanagement/projects>; WMNF U.S. Forest Service Logging Projects Map (Exhibit 6).

¹⁴⁸ Final EA at 30.

¹⁴⁹ Final EA at 21. The only documents that provide a cumulative analysis in the project record are limited to the Biological Evaluation and Scenery Specialist Report.

Action encompasses National Forest System lands located within the Peabody West HMU” and “activities on private land adjacent to the HMU.”¹⁵⁰ In other words, the cumulative impacts analysis for the NLEB and other TESP species only includes a relatively small area (although no map was provided showing the exact spatial scale of the effects analysis). When taken into consideration with all the other Forest Service projects within the WMNF¹⁵¹ discussed above, the cumulative impact is significant. Because these projects may result in logging of mature trees that the bats use for roosting and foraging, the Forest Service must analyze the cumulative effects this Project will have on bat habitat, “when added to other past, present, and reasonably foreseeable future actions”¹⁵²

To be certain, the cumulative effects of Forest Service projects on the NLEB will be substantial and consequential, not just within the WMNF but also throughout the bat’s national habitat range. This is because USFWS has issued a batched (and botched) Biological Opinion, allowing 2,408 planned and ongoing Forest Service actions in the Eastern and Southern Regions to continue.¹⁵³ This action area contains 22,542,298 acres of forested National Forest System lands.¹⁵⁴ Due to the dire state of the NLEB, every individual bat and every activity contributing to the destruction of its habitat—including logging—are of utmost importance. Failure to protect this species is a violation of the ESA.

For all the reasons set forth above, the Forest Service significantly fails NEPA’s hard look requirement of considering all cumulative impacts under NEPA’s implementing regulations.

Requested Remedy: The Forest Service should complete an EIS and additional NEPA analysis to ensure that all cumulative impacts of the Project are analyzed, addressed, and made clear to the public.

II. With Its Deficient Purpose and Need Statement, the Final EA Fails to Frame and Inform the NEPA Analysis.

NEPA directs the Forest Service to “specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.”¹⁵⁵ The

¹⁵⁰ Biological Evaluation at 6.

¹⁵¹ See WMNF U.S. Forest Service Logging Projects Map (Exhibit 6).

¹⁵² 40 C.F.R. § 1508.7.

¹⁵³ Letter from Karen Herrington, Acting Assistant Regional Director for Ecological Services, Region 3 of USFWS, to Gina Owens, Regional Forester of Eastern Region, U.S. Forest Service (Mar. 31, 2023) (re Northern Long-eared Bat Biological Opinion) (in Peabody West IRP project file at filename Biological Opinion NLEB Reinitiation - Forest Service Region 8 and Region 9 Final.pdf) (hereinafter “BiOp”) (Exhibit 46).

¹⁵⁴ BiOp at 6.

¹⁵⁵ 40 C.F.R. § 1502.13.

statement must accurately reflect the proposed action's purpose and need because it will inform the range of alternatives the agency considers as part of its NEPA analysis.¹⁵⁶

The Forest Service's purpose and need statement here fails to meet this standard. The Final EA states the purpose of the Peabody West IRP is "to advance Forest Plan goals, objectives, and desired conditions for vegetation, wildlife, and other resources in the Peabody West Habitat Management Unit (HMU)," and the Project is needed in particular to "manage forest vegetation in the project area to diversify vegetation and wildlife habitat while providing a sustainable yield of high-quality timber products," "address transportation system needs[,] and improve recreational opportunities."¹⁵⁷ As Standing Trees commented on the identical purpose and need statement in the Draft EA, the Final EA's purpose and need statement is uninformative and fails to contextualize the Project's purpose and need in a manner that promotes consideration of reasonable alternatives, including alternative forest management prescriptions.¹⁵⁸ Indeed, the statement is too vague to adequately connect the Project's purpose and need to stand conditions, best science, and desired future conditions in the Project area.

Moreover, the purpose and need statement fails to incorporate recent governing authorities that must inform it. A properly crafted purpose and need statement would integrate an accurate account of Forest Plan objectives and current Executive Orders.¹⁵⁹ The purpose and need statement for the Peabody West IRP fails on both accounts. Although the Final EA repeatedly cites the Forest Plan, the Plan is over 17 years old, conflicting with NFMA's intent that forest plans be updated on a regular basis to reflect updated science, management objectives, and community needs.¹⁶⁰ The Peabody West IRP further fails to reconcile the purpose and need statement with current Executive Orders 14,072 and 14,008, which aim to foster forest conservation, enhance forest resilience, and assess mature forests. The Final EA does not mention either Executive Order; as a result, the Final EA fails to incorporate their policies with the Plan's goals in the context of this Project.

As Standing Trees emphasized in its prior comments, a more accurate purpose and need statement would promote and require exploration of other forest management prescriptions that could better implement the Forest Plan, better avoid significant impacts on scenic and cultural resources and mature forests, better support the full range of biodiversity in its natural abundance and distribution, and meet the intent of the applicable Executive Orders.

¹⁵⁶ See *League of Wilderness Defenders/Blue Mtns. Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1069 (9th Cir. 2012).

¹⁵⁷ Final EA at 1. According to the Final EA, the Peabody West HMU's purpose is "to provide a sustained yield of high-quality timber products; provide a balanced mix of habitats for wildlife; provide a variety of recreation opportunities; and manage high-use or highly developed recreation areas to acceptable social and ecological standards while retaining some low-use and less developed areas." *Id.*

¹⁵⁸ Standing Trees Comments at 2-4 (Exhibit 36).

¹⁵⁹ Exec. Order Nos. 14,072, 14,008.

¹⁶⁰ 16 U.S.C. § 1604(f)(5).

In light of the failings identified above, the Final EA's purpose and need statement is unlawful under NEPA.

Requested Remedy: The Forest Service should prepare an EIS with a more accurate purpose and need statement that promotes exploration of reasonable alternatives in compliance with the Forest Plan and Executive Orders 14,072 and 14,008. The Forest Service should update the Forest Plan as it is required to do under NFMA.

III. The Final EA Failed to Analyze Reasonable Alternatives Presented by Standing Trees.

In utter abdication of NEPA's insistence that agencies consider reasonable alternatives, the Forest Service failed to analyze such alternatives to the Project (other than in the Final EA's insufficient and cursory discussion of not taking the action, discussed *infra*). In its comments on the Draft EA, Standing Trees presented several reasonable alternatives that the Forest Service should have analyzed:

- Avoiding all roadless area impacts and protecting roadless area values by guiding logging away from Forest Plan Inventoried Roadless Areas that were allocated to Management Area 2.1 in the Forest Plan and any other roadless areas that would be affected by the Project,
- Creating *complex* early successional habitat rather than simplified regeneration-age forest through even-aged management, in order to achieve Forest Plan habitat management objectives for early successional forest, with evaluation of such strategies as the possibility of beaver reintroduction, girdling trees to create standing snags, "chop-and-drop" to increase woody debris and create canopy gaps, and more;
- Increasing the size of the buffer from watercourses and wetlands;
- Avoiding all mature and old forest as defined in Forest Plan Appendix D, Age Class Definitions by Habitat Type, in order to comply with Executive Order 14,072 and to reduce risk of harm to NLEB habitat.¹⁶¹

Instead, the Final EA does not consider any meaningful alternative to the Project whatsoever. CEQ regulations mandate that federal agencies "shall to the fullest extent possible . . . [u]se the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment."¹⁶² It is also incumbent upon federal agencies to "[s]tudy, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves

¹⁶¹ Standing Trees urged that such an alternative analysis would also consider how roadless area logging and road construction/reconstruction, regardless of whether a roadless area is managed according to the 2001 Roadless Area Conservation Rule, may affect the outcome of future Chapter 70 wilderness inventories and evaluations and also the potential for Congress to include these lands in the National Wilderness Preservation System. Standing Trees Comments at 7-8 (Exhibit 36).

¹⁶² 40 C.F.R. § 1500.2(e) (emphasis added).

unresolved conflicts concerning alternative uses of available resources.”¹⁶³ Furthermore, an agency may consider only the proposed action when there are no “unresolved conflicts concerning alternative uses of available resources.”¹⁶⁴ Unresolved conflicts exist when the agency lacks a consensus about the proposed action based on input from interested parties.¹⁶⁵

It is inconceivable that there was only one way to achieve the Forest Service’s purpose in proposing this Project. This is especially true for the logging portions of the Project. The sheer number of different silviculture prescriptions for the proposed action demonstrates that even if logging is needed, there is a wide variability in how logging, if any is warranted at all, can achieve desired conditions. This variability necessarily implies additional reasonable alternatives exist that the Forest Service either did not identify, or, at a minimum, did not consider.

A recent case in federal district court in New Hampshire is instructive on this issue. In *Conservation Law Foundation v. U.S. Army Corps of Engineers*, 457 F. Supp. 3d 33 (D.N.H. 2019), a recent preliminary injunction opinion regarding the range of alternatives considered in an EA, the Court emphasized 40 C.F.R. § 1502.14, quoting from the regulation that agencies must:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.¹⁶⁶

The Court went on to hold that the agency was likely to succeed on the merits because, unlike here, “the EA provided reasonable, common-sense explanations for rejecting alternatives.”¹⁶⁷ In that case, the agency considered *five* alternatives, including a true no-action alternative.¹⁶⁸ The agency assessed the alternatives in quantitative terms, and for each alternative, the agency provided a rationale for why it was rejecting it in favor of the proposed action.¹⁶⁹

By contrast, here, even after reviewing comments on the Project, the Forest Service did not analyze reasonable alternatives to the Project, much less provide any rationale, quantitative or otherwise, for why it rejected those presented by Standing Trees. To be sure, numerous

¹⁶³ *Id.* § 1501.2(c); see also 42 U.S.C. § 4332(2)(E).

¹⁶⁴ 42 U.S.C. § 4332(E); see also 36 C.F.R. § 220.7(b)(2)(i).

¹⁶⁵ National Environmental Policy Act Procedures, 73 Fed. Reg. 43,084, 43,092 (July 24, 2008) (codified at 36 C.F.R. Part 220).

¹⁶⁶ 457 F. Supp. 3d at 56.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.* at 57.

¹⁶⁹ *Id.* at 57–58.

reasonable alternatives exist—alternatives apparent to the agency and the public alike—and the Forest Service could have analyzed any of them, but it failed to do so. This choice violated NEPA.

Furthermore, in another recent and instructive case, the Court of Appeals for the Ninth Circuit held that the Bureau of Ocean Energy Management (BOEM) inadequately considered alternatives in its EA, thereby violating NEPA.¹⁷⁰ In *Environment Defense Center v. Bureau of Ocean Energy Management*, the court found that, although BOEM considered three alternatives, the alternatives were not sufficiently distinct.¹⁷¹ Additionally, the court found the Final EA by BOEM needed to include “full and meaningful consideration [of] all viable alternatives ‘in [the] environmental assessment,’” such as those proposed by commenters.¹⁷² Here, the Forest Service failed to consider any alternatives beyond its conclusory assessment of the consequences of no action, let alone consider the viable alternatives proposed by commenters. And unlike the agency in *Environment Defense Center*, the Forest Service failed to consider *any* viable alternatives to silviculture treatment plans. This is a violation of NEPA.¹⁷³

As stated elsewhere in this Objection, to the extent the Forest Service intends to move forward with the Project, it must complete an EIS. As part of that EIS, it must consider all reasonable alternatives, including a true No Action Alternative.

Requested Remedy: The Forest Service should prepare an EIS with a full analysis of reasonable alternatives to the Project.

IV. The Final EA’s Discussion of “No Action” Unlawfully Failed to Evaluate the No Action Alternative.

A “No Action Alternative” is the bare minimum alternative analysis an agency should undertake for an EA or EIS, and the Final EA does not adequately address this.¹⁷⁴ The Final EA fails to acknowledge, as Standing Trees previously commented, that not moving ahead with the proposed action (i.e., taking No Action), has major potential benefits including, but not limited to: climate benefits of retaining older, mature trees; habitat benefits for the Northern Long-eared Bat and other species that rely on mature, old, or interior forests or are sensitive to harvest impacts; avoiding potential detrimental impacts to water quality due to runoff, sedimentation, and potential herbicide contamination; avoiding loss of or damage to historic and cultural resources located within the proposed action area; avoiding introduction of invasive species (which were noted to be essentially non-existent at the June 23, 2022 public meeting regarding the Project); protecting values present in the Great Gulf Inventoried Roadless Area; and avoiding visual and noise impacts, among many others. Nor does the Final EA detail how the full range of

¹⁷⁰ *Env’t Def. Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th 850, 877 (9th Cir. 2022).

¹⁷¹ *Id.* at 878.

¹⁷² *Id.*

¹⁷³ 42 U.S.C. § 4332(C)(iii).

¹⁷⁴ 40 C.F.R. § 1502.14(c).

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, including ecologically-appropriate amounts and patterns of early successional habitat.

Like the Draft EA, the Final EA presents two paragraphs briefly outlining the “Consequences of No Action.”¹⁷⁵ These paragraphs do not reflect a true analysis of a No Action alternative, containing no assessment of any of the benefits of leaving the forest as-is. Further, there is no scientific justification provided for claims that “no action” would result in less diversity of tree species, ages, and structures. As discussed elsewhere in this Objection, just the opposite is true: peer-reviewed science shows that older forests exhibit the greatest tree species and habitat diversity, the greatest structural complexity, and the greatest resilience to climate change.¹⁷⁶ In failing to present a full analysis of a No Action Alternative that includes the environmental benefits, the Final EA violates NEPA.

Requested Remedy: The Forest Service should prepare an EIS with a full analysis of a No Action Alternative to the Project.

V. The Project, as Proposed, Will Have “Significant” Impacts and Requires an Environmental Impact Statement.

As discussed in Standing Trees’ prior comments on the Draft EA and elsewhere in the Objection, the Project, in myriad ways, threatens the outstanding natural resources of the affected area with a range of significant impacts. Yet, the Forest Service has concluded that the Project will have “no significant impact” and does not require an Environmental Impact Statement (“EIS”) under NEPA.

Standing Trees objects to the Project on the ground that the Final EA’s finding of no significant impact (“FONSI”) is erroneous and violates NEPA. The FONSI is conclusory and unsupported by the facts, and the Project is and should be analyzed as a major federal action that will significantly impact the quality of the human environment. The Forest Service should conduct additional analysis in the form of an EIS.

A. The FONSI Is Conclusory and Lacks Factual Support.

A FONSI must “present the reasons why an action . . . will not have a significant effect.”¹⁷⁷ An agency FONSI will be held to the following standard: first, the agency must have accurately identified the relevant environmental concern; second, once the agency has identified the problem it must have taken a hard look at the problem in preparing the EA; and third, if a finding of no significant impact is made, the agency must be able to make a convincing case for

¹⁷⁵ Final EA at 21.

¹⁷⁶ Thom et al. (Exhibit 19); Miller et al. (2018) (Exhibit 18); Miller, et al. (2016) (Exhibit 30); Gunn et al. (Exhibit 45).

¹⁷⁷ 40 C.F.R. § 1508.13.

its finding.¹⁷⁸ As described in our comment on the Draft EA and expanded upon here, the Final EA fails to adequately describe the impacted environment and take a hard look at impacts to those resources. Despite this, the Forest Service has advanced a finding of no significant impact without providing convincing reasoning to support this finding.

The FONSI is grounded in the flawed analysis of the EA. The FONSI and the EA rely heavily on the purported lack of impact from past, similar projects to justify this project.¹⁷⁹ Yet the Forest Service provides no analysis regarding past WMNF projects and their alleged lack of impact.¹⁸⁰ Further, the Forest Service fails to provide up-to-date environmental information for itself, public officials, or residents, eschewing its statutory obligation.¹⁸¹

Here, the Forest Service fails to provide complete environmental information on at least two counts. First, the Forest Service does not have up-to-date environmental information regarding the presence of the NLEB in the proposed project area, including where NLEB hibernacula or roosts may exist. Although the New Hampshire Fish and Game Department attempted to catch NLEBs during a two-night excursion in July of 2019, this excursion produced no results.¹⁸² Without complete data, the Forest Service cannot properly abide by NEPA.¹⁸³ Second, the Forest Service relies on the EIS compiled for the Forest Plan in 2005. This document is now many years out of date.¹⁸⁴ The Forest Service must compile a complete set of data before

¹⁷⁸ *Nw. Bypass Grp. v. U.S. Army Corps of Eng'rs*, 470 F. Supp. 2d 30, 61 (D.N.H. 2007).

¹⁷⁹ Final EA at 29-30.

¹⁸⁰ The closest the Final EA comes to discussing past activities is its conclusory reference to the Albany South EA's analysis of timber harvesting and its impacts on water quality, and even that reference does not describe the actual impacts from implementation of that previous project. Final EA at 24.

¹⁸¹ 40 C.F.R. § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens *before* decisions are made and *before* actions are taken" (emphasis added).); *see also Env't. Def. Ctr.*, 36 F.4th 850, 873 (agency cannot rely on inaccurate, incomplete data to "formulate an estimate for evaluating environmental impacts under NEPA").

¹⁸² *Contrast Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1250 (9th Cir. 2005) (finding accurate data to determine species viability where the Forest Service had monitored goshawks in the Helena National Forest for more than eight years).

¹⁸³ *See also WildEarth Guardians*, 370 F. Supp. 3d at 1235 ("The problem is that, without data identifying the location of calving sites and wallows, the Forest Service cannot meet its obligation to protect those sites or minimize disturbance to [elk]."); *Sierra Club v. Martin*, 71 F. Supp 2d 1268, 1319 (N.D. Ga. 1996) (finding that, because there was no population data, quantitative data, or other adequate information, the Forest Service did not have sufficient facts or evidence regarding sensitive and endangered species to support its finding of no significant impact).

¹⁸⁴ 36 C.F.R. § 219.7(a).

it can effectively take the requisite hard look at the potential environmental effects of this proposed action.

The FONSI must “present[] the reasons why an action. . . will not have a significant effect[.]”¹⁸⁵ It is inadequate to state that because other actions did not have a significant impact, thus this Project will also have no significant impact. Similarly, it is inappropriate to issue a final EA without compiling and then considering a complete account of environmental information. The Final EA’s failure to support its FONSI is alone sufficient to require additional or supplemental NEPA analysis in the form of an EIS.¹⁸⁶

B. The Final EA Fails to Adequately Define the Context or Discuss the Intensity of Project Impacts, Which Weigh in Favor of a Finding of Significance.

An EIS is required for all “major federal actions significantly affecting the quality of the human environment[.]”¹⁸⁷ Under NEPA, the analysis of significance “requires consideration of both context and intensity.”¹⁸⁸ As raised in our comment on the Draft EA, the Forest Service’s “analysis” of the context and intensity of impacts is cursory and incomplete. As proposed, the Peabody West IRP may cause significant degradation to some human environmental factor.¹⁸⁹ The Project’s context and intensity of impacts overwhelmingly require a finding of significance and the preparation of an EIS.

1. Context

The Final EA’s failure to appropriately identify, or—in some instances—failure to identify at all, the context within which to evaluate impacts of the proposed project is a critical failure. Without first establishing the proper context within which to conduct its analysis, it is impossible for the Forest Service to properly evaluate the intensity of project impacts. While a single housefire may be inconsequential on the scale of the city, the impacts on the affected home are devastating. Context is the key to determining the significance of an impact, and that is why context must be properly defined and supported for each resource being evaluated.

The CEQ’s NEPA-implementing regulations provide that:

¹⁸⁵ 40 C.F.R. § 1508.13.

¹⁸⁶ *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 444 F. Supp. 3d at 859.

¹⁸⁷ 42 U.S.C. § 4332(2)(C).

¹⁸⁸ 40 C.F.R. § 1508.27.

¹⁸⁹ *See Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149-50 (9th Cir. 1998). *See also Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846, 864-65 (9th Cir. 2005) (“To trigger this [EIS] requirement a plaintiff need not show that significant effects will in fact occur, but raising substantial questions whether a project may have a significant effect is sufficient” (internal quotations, citations, and alterations omitted)).

[T]he significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend on the effects in the locale rather than in the world as a whole. Both short and long-term effects are relevant.¹⁹⁰

Establishing the proper setting and scale (“context”) within which to evaluate the impact of an action is critical, yet the FONSI’s discussion of “context” does not establish the context for the analysis of resources impacted by the project at all.

The Context section of the FONSI does not indicate whether the project qualifies as a major federal action significantly affecting the quality of the human environment, nor does it provide discussion or detail about what the context for the Project is. The only analysis addressing the matter of context states the “proposed project includes about 3,000 acres of the more than 800,000 acres of lands administered by the WMNF,” and the “potential environmental effects . . . would not be measurable at a regional or larger scale.”¹⁹¹ Other than this, the Forest Service fails to provide any actual analysis placing the impacts of the Project into context, never mentioning the outstanding natural resource values of the Project’s location at the northern end of the Presidential Range—including the iconic Great Gulf Wilderness to the north of Mount Washington and to the immediate south of the Project area, the Appalachian Trail and other hiking trails in the vicinity, and the maturing forest ecosystem that will be affected by the Project directly.

The Forest Service’s resort to simple numeric measurement of the size of the Project and the size of the WMNF improperly minimizes and obfuscates localized impacts from Project activities. The Forest Service is not allowed to sweep significant impacts under the rug by pointing to the vastness of the forest surrounding the Project.¹⁹² This is equivalent to the Forest Service proposing to burn the house down and telling the family that impacts are minimal because the rest of the city is still there. With greater consideration of the context of this Project, the Forest Service would find that the Peabody West IRP is a major federal action significantly affecting the quality of the human environment.

¹⁹⁰ 40 C.F.R. § 1508.27(a).

¹⁹¹ Final EA at 28.

¹⁹² See *Pac. Coast Fed’n of Fisherman’s Ass’ns v. Nat’l Marine Fisheries Serv.*, 265 F.3d 1028, 1035-37 (9th Cir. 2001) (agency cannot minimize impact of activity by adopting scale of analysis so broad that it trivializes site-level impact).

2. Intensity

Intensity refers to the “severity of impact.”¹⁹³ NEPA provides a list of ten non-exclusive factors to consider when evaluating intensity.¹⁹⁴ Because the Forest Service failed to define the context of its analysis for most project-area resources, its analysis of intensity, which is intrinsically linked to the context within which it is evaluated, is also necessarily inadequate. The discussion provided for the majority of the ten consideration factors is cursory, often pointing to the supposed success of prior unnamed projects and referring to unspecified “analysis” in order to make findings that each factor weighs against a finding of significance. Each shortcoming is addressed individually below, as many of these considerations are implicated by the Peabody West IRP. The presence of even just “one of these factors may be sufficient to require an EIS in appropriate circumstances.”¹⁹⁵ The following should be considered in evaluating intensity:

(1) “Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.”¹⁹⁶

The Final EA does not describe potential adverse effects of the Project. For example, in the discussion of “Clearcuts with Reserves,” there is no mention of known detrimental impacts of clear-cut logging, such as the potential to spread ticks and invasive plants, increased erosion, decreases in water quality, and soil compaction from logging activities.¹⁹⁷ Only perceived benefits are discussed.¹⁹⁸ The Final EA fails to acknowledge potential adverse impacts, and thus the Forest Service has not met its obligation to “consider... [i]mpacts that may be both beneficial and adverse.”¹⁹⁹ This factor also weighs in favor of a finding of significance and the preparation of an EIS.

(2) “The degree to which the proposed action affects public health or safety.”²⁰⁰

The Final EA states the Forest Service “implemented this type of project and similar activities . . . many times on National Forest System lands locally and in the region without substantial impacts to public health or safety.”²⁰¹ Repeated reliance on the fact that similar projects have occurred in the past ignores the fact that each project location is unique and therefore requires its own analysis of potential impacts; in addition, no evidence has been presented to support the claim that there have not been “substantial impacts to public health or

¹⁹³ 40 C.F.R. § 1508.27(b).

¹⁹⁴ 40 C.F.R. § 1508.27(b)(1)-(10).

¹⁹⁵ *Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d at 865.

¹⁹⁶ 40 C.F.R. § 1508.27(b)(1).

¹⁹⁷ Final EA at 6.

¹⁹⁸ *Id.*

¹⁹⁹ 40 C.F.R. § 1508.27(b)(1).

²⁰⁰ 40 C.F.R. § 1508.27(b)(2).

²⁰¹ Final EA at 29.

safety” from past projects. It would undermine the entire purpose of NEPA to allow for general *types* of past actions to justify future actions. NEPA analysis is done on a project-specific basis. The Forest Service fails to describe the “potential impacts to public health and safety” or to ensure that these are minimized or avoided.²⁰² Valid public safety concerns were raised during public comment periods, and never addressed. This factor also weighs in favor of a finding of significance and the preparation of an EIS.

(3) “Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.”²⁰³

In the Final EA, the Forest Service makes a conclusory statement that the Project area is “not unique” and there are “no unique geographic areas.”²⁰⁴ We do not agree with this unsupported assertion, nor with the Forest Service’s refusal to account for the Inventoried Roadless Areas, Great Gulf Wilderness, Appalachian Trail corridor, scenic location at the northern end of the Presidential Range, and ecologically critical areas within the Project area. In particular, the Project area is ecologically critical, especially in light of the NLEB’s listing as an Endangered Species. NLEBs are known to occur in the Project area, and yet the Forest Service fails to recognize the importance of mature forest for the species. The intensity of potential impacts to this area is high when considering the characteristics of this area, as well as those raised in our comment on the Draft EA. The unique characteristics of the Project area weigh in favor of a finding of significance and the preparation of an EIS.

(4) “The degree to which the effects on the quality of the human environment are likely to be highly controversial.”²⁰⁵

For the purposes of this factor, “[a] substantial dispute exists when evidence, raised prior to the preparation of an EIS or FONSI . . . casts serious doubt upon the reasonableness of an agency’s conclusions.”²⁰⁶ The word “controversial” refers to situations where “substantial dispute exists as to [the] size, nature, or effect” of the major federal action.²⁰⁷ The Forest Service ignores the high degree of scientific controversy over the Project’s implementation and

²⁰² Id.

²⁰³ 40 C.F.R. § 1508.27(b)(2).

²⁰⁴ Final EA at 29.

²⁰⁵ 40 C.F.R. § 1508.27(b)(4).

²⁰⁶ *Nat’l Parks Conservation Ass’n v. Babbitt*, 241 F.3d 722, 736 (9th Cir. 2001).

²⁰⁷ *Nw. Bypass Grp. v. U.S. Army Corps of Eng’rs*, 552 F. Supp. 2d 97, 136 (D.N.H. 2008) (alterations and citations omitted) (quoting *Advocs. For Transp. Alts. v. U.S. Army Corps of Eng’rs*, 453 F. Supp 2d 289, 304 (D. Mass. 2006)). See also *Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (quoting *North American Wild Sheep v. U.S. Department of Agriculture*, 681 F.2d 1172, 1182 (9th Cir. 1982)) (emphasis in original); *Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (same); *Town of Superior v. U.S. Fish and Wildlife Serv.*, 913 F. Supp. 2d 1087, 1120 (D. Colo. 2012) (same).

reasoning. Substantial scientific dispute clearly exists related to: management for early successional habitat, management to improve carbon storage and sequestration, management for climate adaptation and resilience, and protection of water quality. Elsewhere in this Objection, we elaborate on the importance of mature forests in climate change adaptation and mitigation. The Forest Service fails to respond to or consider recent studies that support the protection of mature forests. We also expand on the failure of the Forest Service to recognize and address the growing importance of mature forest conservation, in line with policy alignment across the Executive Branch as a result of Executive Orders 14,072 and 14,008. The Forest Service's determinations and reasoning in the Final EA are inconsistent with greater efforts to protect and conserve mature forests, rooted in scientific understanding ignored by the Forest Service. Substantial dispute exists as to the effect of the Peabody West IRP on the human environment, weighing in favor of a finding of significance and the preparation of an EIS.

(5) *“The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.”*²⁰⁸

The Forest Service attempts to justify its decision based on the existence of past projects implemented in the Forest and the region.²⁰⁹ Absent is any supporting information or authorities for the public to validate this claim. The possible effects on the human environment are highly uncertain *and* involve unique or unknown risks because the Project is predicated on “similar actions” implemented in the WMNF.²¹⁰ This reasoning ignores the heart of NEPA: *project-specific* analysis. The Forest Service denied the public due consideration of this specific Project's impacts, foreclosing the opportunity to assess unique or unknown risks. This flawed analysis weighs in favor of a finding of significance and the preparation of an EIS.

(6) *“The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.”*²¹¹

The Peabody West IRP will irretrievably harm the Peabody West HMU, with potential ramifications for the Roadless Area's consideration as Chapter 70 Wilderness Inventory and Evaluation, for Roadless Area protection, and further evaluation for other resource protection classifications in Forest Plan revisions. The Forest Service places too much weight on prior implementation of a *type* of activity, which says nothing about the impact of that activity on a specific location. Project-specific evaluation is critical because where and how activities occur in the landscape determines the nature of the impact. This is a dangerous precedent to establish for future actions and weighs in favor of a finding of significance and the preparation of an EIS.

(7) *“Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a*

²⁰⁸ 40 C.F.R. § 1508.27(b)(5).

²⁰⁹ Final EA at 29.

²¹⁰ Final EA at 30.

²¹¹ 40 C.F.R. § 1508.27(b)(6).

cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.”²¹²

Above, we discuss the Final EA’s lack of analysis regarding cumulative impacts. As previously explained, there are a number of potential cumulative impacts that the Final EA baselessly denies.²¹³ This factor also weighs in favor of a finding of significance and the preparation of an EIS.

(8) “The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.”²¹⁴

The Forest Service ignores the historic and cultural resources that deserve investigation within the project area. The potential loss of these resources counsels in favor of significance and the preparation of an EIS.

(9) “The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.”²¹⁵

We expand below on the Final EA’s complete lack of consideration for the endangered NLEB and its insufficient analysis of impacts to tricolored bats. The recent uplisting of the species and absence of transparency from both the Forest Service and USFWS weighs heavily in favor of a finding of significance, necessitating a full analysis of the impacts to the NLEB, tricolored bats, and other endangered and threatened species in an EIS.

(10) “Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.”²¹⁶

As expanded upon at length in this Objection, the Forest Service failed to demonstrate compliance with a number of laws imposed for the protection of the environment: NEPA, NFMA, CWA, and the ESA. For example, the Final EA concedes inconsistency with the Forest Plan guidelines for scenery management²¹⁷ and thereby with NFMA. And below, we expand on the concern the Project will lead to violations of the ESA and the requirements imposed for the protection of the NLEB. The Project threatens the violation of numerous federal requirements, weighing in favor of a finding of significance and the preparation of an EIS.

²¹² 40 C.F.R. § 1508.27(b)(7).

²¹³ Final EA at 30.

²¹⁴ 40 C.F.R. § 1508.27(b)(8).

²¹⁵ 40 C.F.R. § 1508.27(b)(9).

²¹⁶ 40 C.F.R. § 1508.27(b)(10).

²¹⁷ Final EA at 30.

Requested Remedy: For all the reasons outlined above, the Forest Service should withdraw its FONSI and prepare an EIS to evaluate the significant impacts posed by this Project.

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

Public participation is a critical aspect of the NEPA process.²¹⁸ However, public involvement in the Peabody West IRP has consistently been thwarted by the unavailability of supporting documents, a lack of sufficient detail, and inadequate public engagement in project development.

The public is unable to properly scrutinize agency decisions and analysis when relevant documentation is not made available or when available documents do not actually contain the analysis necessary to support conclusory statements. Agency conclusions in an EA “must be supported by some quantified or detailed information, and the underlying environmental data relied upon. . . must be made available to the public to allow for informed public comment on the project.”²¹⁹ The Final EA contains “simple, conclusory statements” without carefully analyzing environmental impacts.²²⁰ It is notably deficient in lacking analysis of public feedback on the Project.²²¹ Agencies must make genuine efforts to involve the public in their NEPA procedures.²²² The Forest Service fell short of this mark in the NEPA process for this Project to date.

To take one example, the Final EA states that transportation management actions were informed by the Forest-wide Transportation Analysis Process. The Final EA notes:

In 2015, the WMNF completed a Forest-wide transportation analysis process report for long-term administration of the WMNF’s transportation system (U.S. Department of Agriculture, Forest Service 2015). The proposed project is needed to complete a site-specific transportation analysis to implement or modify the 2015 travel analysis process recommendations within the project area; to plan and manage for current and future public and Forest Service access to the project area; to meet forest plan standards for desired road operation maintenance levels (MLs); and to meet requirements of the Highway Safety Act....²²³

²¹⁸ See 40 C.F.R. § 1500.1(b) (“The purpose and function of NEPA is satisfied if Federal agencies have considered relevant environmental information, and the public has been informed regarding the decision-making process.”); 40 C.F.R. § 1506.6(a) (“Agencies shall . . . [m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures.”).

²¹⁹ *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 444 F. Supp. 3d at 858-59.

²²⁰ *Touret v. NASA*, 485 F. Supp. 2d 38, 45 (D.R.I. 2007).

²²¹ *Id.*

²²² 40 C.F.R. § 1506.6(a).

²²³ Final EA at 2.

Neither the Final EA nor the other public project documentation provide the analysis that went into the 2015 process, making it impossible to understand the rationale for the Project's transportation-related proposals in their full context. This is especially true given that the Final EA admits that "[s]ome system roads have travel analysis process recommendations that differ from the current proposal."²²⁴ This apparent conflict cannot be understood without transparency regarding the 2015 analysis, which the Forest Service failed to provide.

Another example of deficient public involvement concerns the Draft and Final EA's failure to explain the potential recreational and scenic impacts of the Project on the Appalachian Trail, the Great Gulf Wilderness, and other nearby scenic resources of major significance to the public. Because those impacts receive little attention in the Project documentation, few stakeholders and members of the public could meaningfully appreciate or comment on the Project proposals, depriving the Forest Service of the type of robust public participation on which NEPA is predicated.

Further complicating public involvement in this NEPA process is the Final EA's acknowledgement that numerous parts of the proposed action are subject to change dependent upon several conditions. However, the Forest Service does not include an opportunity for the public to participate in the changes in the proposed action and does not explain when such changes would be implemented. For example, the Forest Service in the Final EA allows for pre-implementation "field visits . . . to refine treatment unit boundaries and acres including modifications to address site-specific conditions (e.g., wet areas, steep or rocky slopes, and forest type changes)" and for "[f]inal locations of log landings [to] be modified during project layout subject to applicable forest plan standards and guidelines, best management practices, and other site specific requirements."²²⁵

Without providing actual analysis, it is impossible to gauge the actual anticipated impact to proposed action-area resources, the significance of those impacts, and whether they may violate the Forest Plan standards and guidelines. The public is not able to properly scrutinize agency decisions and analysis when relevant documentation is not made available or when available documents do not actually contain the analysis necessary to support the Forest Service's conclusory statements. In addition, the failure to provide clear analysis, or sometimes any analysis, violates NEPA's mandate that NEPA documents "shall be written in plain language . . . so that decisionmakers and the public can readily understand them."²²⁶ The public cannot understand what it is not told. Instances of this persistent defect are identified throughout this objection.

The overall effect of the described inadequacies is the impediment of public participation, in violation of NEPA's clear mandate to "encourage and facilitate public involvement in decisions which affect the quality of the human environment" and to "[m]ake diligent efforts to

²²⁴ *Id.* at 10.

²²⁵ *Id.* at 5-6.

²²⁶ 40 C.F.R. § 1502.8.

involve the public in preparing and implementing their NEPA procedures.”²²⁷ The Forest Service’s decisions to impede public participation are in violation of NEPA’s mandate, as the public should not have to “parse the agency’s statements to determine” project impacts.²²⁸

Requested Remedy: The Forest Service must adequately engage with the public and complete an EIS for the Peabody West IRP to cure the described inadequacies.

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

In Standing Trees’ comments on the Draft EA, we expressed substantial concern that the Forest Service had not adequately addressed the need for the Project to protect the Northern Long-eared Bat (“NLEB”), which was then listed as threatened and was proposed for listing as endangered under the ESA. While we acknowledge that the Forest Service reinitiated consultation with U.S. Fish and Wildlife Service (“USFWS”) regarding the now finally-listed endangered NLEB, the Forest Service is still failing to meet its legal obligations under the ESA and other federal statutes, and Standing Trees objects to the Project on this ground.

A. The Peabody West IRP Fails to Comply with the ESA.

Congress passed the ESA in 1973 for the purpose of conserving endangered and threatened species and the ecosystems upon which they rely.²²⁹ According to the Supreme Court, the “plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost.”²³⁰ On November 30, 2022, USFWS published a final rule reclassifying the NLEB, uplisting the bat from threatened to endangered under the ESA.²³¹ Though initially set to become effective on January 30, 2023, in an unusual and unprecedented move, USFWS delayed the effective date of the uplisting until March 31, 2023.²³² The NLEB’s endangered status is now in place, with part of its known habitat range within the Peabody West IRP area. Federal agencies, including the Forest Service, are required to be in compliance with the ESA as it relates to the endangered status of the NLEB.

Section 9 of the ESA broadly prohibits the “take” of any listed species.²³³ “Take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to

²²⁷ 40 C.F.R. § 1506.6(a).

²²⁸ *League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton*, 752 F.3d 755, 761 (9th Cir. 2014).

²²⁹ 16 U.S.C. § 1531(b).

²³⁰ *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

²³¹ Endangered and Threatened Wildlife and Plants; Endangered Species Status for Northern Long-Eared Bat, 87 Fed. Reg. 73,488-504 (Nov. 30, 2022) (Exhibit 7).

²³² Endangered and Threatened Wildlife and Plants; Endangered Species Status for Northern Long-Eared Bat; Delay of Effective Date, 88 Fed. Reg. 4,908-10 (Jan. 26, 2023) (Exhibit 8).

²³³ 16 U.S.C. § 1538(a).

attempt to engage in any such conduct.”²³⁴ Section 7 of the ESA requires every federal agency to consult with the USFWS to “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species.”²³⁵ To assist in the completion of this statutory requirement, the agency undertaking the action (“action agency”) must complete a Biological Assessment (“BA”).²³⁶ The purpose of the BA is to “evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat.”²³⁷ USFWS reviews the BA, and if the agency determines that the proposed action may affect listed species or critical habitat, USFWS must formally consult with the action agency.²³⁸ USFWS then produces a Biological Opinion (“BiOp”) to determine whether the agency action is likely to jeopardize the continued existence of a listed species.²³⁹ If the action is likely to jeopardize listed species, the BiOp must include reasonable and prudent alternatives to the action as proposed.²⁴⁰

The Forest Service is required to complete a BA evaluating the potential effects of the action (the Project) on listed species.²⁴¹ Accordingly, a species-specific BA should have been conducted for the NLEB (and the Tricolored bat). On May 1, 2023, Standing Trees received a copy of a potentially applicable BA for the NLEB in response to a FOIA request, although that BA is not included in the Project documents that have been provided to the public and it is not clear that the BA, while seemingly generically applicable to literally hundreds of Forest Service projects in the Eastern and Southern Regions of the Forest Service, constitutes the operative BA for the Peabody West IRP.

The Final EA reports that, following the 2022 reopening of consultation regarding the NLEB, the USFWS determined in a Biological Opinion that the Peabody West IRP may affect, but is not likely to adversely affect, the NLEB. The Final EA implies that this ends the analysis, with no further action necessary to protect the NLEB under the ESA.²⁴² Standing Trees disagrees.

First, contrary to Section 7 of the ESA, the Biological Opinion (and the apparent BA) for the NLEB makes no site- or Project-specific determination whatsoever, as the Final EA implies. The Biological Opinion provides a blanket assessment of nearly 3,000 Forest Service projects, of which the Peabody West IRP is only one: “[d]ue to the number of planned and ongoing projects

²³⁴ *Id.* at § 1532(19).

²³⁵ *Id.* at § 1536(a)(2).

²³⁶ *Id.* at § 1536(c)(1).

²³⁷ 50 C.F.R. § 402.12(a).

²³⁸ *Id.* § 402.14(a).

²³⁹ *Id.* at § 402.14(h).

²⁴⁰ *Id.* at § 402.12(h)(2).

²⁴¹ 16 U.S.C. § 1536(c)(1).

²⁴² Final EA at 25.

and the similarity of effects, the projects will be combined and collectively evaluated to determine the projects' effects on NLEB.”²⁴³ The Biological Opinion goes on to estimate that the NLEB is apparently gravely endangered in the White Mountain National Forest, with as few as 25 maternity colonies and fewer than a thousand NLEB individuals in all of New Hampshire; to state that there are a litany of potential harms to NLEB and their habitat from projects like the Peabody West IRP; and to highlight the lack of reliable data on where NLEB colonies persist and the likelihood of impacts from Forest Service projects.²⁴⁴ Incoherently, the Biological Opinion—with the same sweeping disregard as the Forest Service's own blanket analyses—authorizes projects like the Peabody West IRP, without any study, analysis, or concern for the potential for NLEBs to be harmed by the Project in its particular setting. In other words, based on available science, NLEBs are assumed to exist in the Project area, but nothing will change about the Project to protect them following their endangered listing, in blatant derogation of the purpose and procedures of the ESA.

Second, even using the Biological Opinion's own terms and methodology—and accompanying USFWS's NLEB tools—the Project fails to comply with those requirements. The Forest Service's Biological Evaluation indicates that the Forest Service used the USFWS Information for Planning and Conservation (“IPaC”) website to determine which federally-listed species may occur within the action area.²⁴⁵ However, neither the Final EA nor any other Project documentation discusses whether the Forest Service completed the Determination Key review process (“DKey”) under IPaC to evaluate the effects of the project on the NLEB.

According to the Standing Analysis and Implementation Plan for the NLEB, “[t]ree removal could affect NLEBs by the loss and/or fragmentation of foraging and commuting habitat and the removal and loss of roost trees. Actions that implement the conservation measures for NLEBs will not result in a gap in forested habitat of greater than 1,000 feet or isolate habitat.”²⁴⁶ Additionally, “[t]ree removal projects proposed within the 3.0 miles of NLEB captures or detections, within 1.5 miles of known roosts, and within 5.0 miles of hibernacula will not be eligible for a predetermination of NLAA [Not Likely to Adversely Affect].”²⁴⁷

²⁴³ BiOp at 4.

²⁴⁴ BiOp at 18, 30-34, 34-35 (“it 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.”).

²⁴⁵ Biological Evaluation at 5.

²⁴⁶ Standing Analysis and Implementation Plan – Northern Long-Eared Bat Assisted Determination Key, Version 1.1, USFWS (April 2023) at 19 (hereinafter “DKey”), <https://www.fws.gov/sites/default/files/documents/Standing%20Analysis%20Version%201.1%20April%202023.pdf> (Exhibit 13).

²⁴⁷ DKey at 22 (Exhibit 13).

Attempting to apply this standard here illustrates how the Forest Service has not supported its assertion of compliance with the ESA. The Biological Evaluation indicates that “[t]here are no known hibernacula or roost trees within the action area, so there are no habitat features that would require a buffer from project activities.”²⁴⁸ Without any supporting data, studies, or evidence, this appears to be a conclusory statement of, in essence, see-no-evil, hear-no-evil, leaving the public wondering how the Forest Service came to this determination. It is unclear what field studies or actions—if any—the Forest Service actually undertook to reach this conclusion. The Forest Service must also consider roosts, hibernacula, or bat presence directly outside of the activity area that might fall within the USFWS DKey range requirements.

Even more directly, the Project’s proposed clearcuts directly run afoul of USFWS standards. USFWS indicates that only tree clearing projects up to *10 acres* are eligible for a predetermined outcome of Not Likely to Adversely Affect the NLEB, a standard that does not appear to have informed the Final EA whatsoever.²⁴⁹ Currently, the Biological Evaluation indicates the action may affect but is not likely to adversely affect the NLEB,²⁵⁰ however, the Final EA asserts that clearcuts in the project area where all trees are removed in a stand will “create large openings (*greater than 10 acres but no more than 30 acres*).”²⁵¹ The Final EA estimates that a total of approximately 30 acres will undergo clearcut treatment in the Peabody West IRP area.²⁵² This proposed action clearly does not support a finding of Not Likely to Adversely Affect the NLEB as the Forest Service indicated in the Final EA and Biological Evaluation. The determination of Not Likely to Adversely Affect is inconsistent with the USFWS DKey requirements, and the Forest Service is required “to coordinate with the local USFWS Ecological Services Field Office and/or follow a supplemental consultation process.”²⁵³

Third, USFWS also provides an NLEB State-Specific Information Sources document and advises government agencies to consult with the appropriate office to determine whether rare or listed species are located within a project area and may be affected by a proposed action.²⁵⁴ The Forest Service should consult with the New Hampshire Division of Forests & Lands to ensure that the proposed activities do not overlap with the required distances from NLEB hibernacula, staging or swarming areas, recorded captures or acoustic detection locations, and roosts.²⁵⁵ In fact, the Forest Service should consult with the New Hampshire Division of Forests and Lands

²⁴⁸ Biological Evaluation at 8.

²⁴⁹ DKey at 11, 22 (Exhibit 13).

²⁵⁰ Biological Evaluation at 3, 7.

²⁵¹ Final EA at 6.

²⁵² Final EA at 5.

²⁵³ DKey at 5. (Exhibit 13).

²⁵⁴ *Northern Long-Eared Bat: State-Specific Information Sources*, https://www.fws.gov/sites/default/files/documents/Roost%20Tree%20and%20Hibernacula%20-%20State-Specific%20Data%20Links_2.pdf (last visited June 12, 2023) (Exhibit 9).

²⁵⁵ N.H. Division of Forests and Lands, *NHB DataCheck Tool*, <https://www4.des.state.nh.us/NHB-DataCheck> (last modified Feb. 28, 2022) (Exhibit 10).

for *all* federally listed, proposed listed, and regional forester sensitive species within the project area. A consultation would provide additional species support assistance to the Forest Service and help ensure compliance with various statutes.

Finally, the Forest Service's own analysis—as deficient as it is—suggests harms to NLEBs from the Project, and the ESA does not countenance such a result. As indicated in Section 7 of the ESA, agencies may not engage in activity that results in the destruction or adverse modification of endangered and threatened species' habitat.²⁵⁶ The 2023 Biological Evaluation for the Peabody West IRP indicates that the NLEB was documented throughout the WMNF, roosting and foraging habitat exists within the action area, and individuals were captured in the area prior to the onset of white-nose syndrome.²⁵⁷ The Biological Evaluation mentions that the New Hampshire Fish and Game Department conducted an unsuccessful two-night capture effort in July 2019.²⁵⁸ It does not appear that the Forest Service has attempted to conduct any additional surveys or capture efforts in the area for over three and a half years. For these reasons, information on the activity of NLEB in the Project area is not only scarce and inadequate, but also outdated. The Biological Evaluation concedes that, in the Peabody West IRP area, NLEB roosts may be removed during project activities and foraging habitat may also be impacted.²⁵⁹ Therefore, the Project as-is would violate the ESA through destruction and adverse modification of endangered bat habitat.

Due to the recent and severe impacts on the species from threats such as white-nose syndrome, climate change, and habitat loss, the Forest Service should conduct additional studies to determine the current status of the NLEB in the project area before taking any action.²⁶⁰

B. The Forest Service Fails to Meet NFMA Requirements.

The Forest Service fails to meet its obligations under NFMA as they relate to the NLEB and other sensitive species. The Forest Service's NFMA implementing regulations outline forest plan ecosystem diversity and species protection requirements.²⁶¹ The regulations state:

The plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the plan area. In doing so, the plan must include plan components to maintain or restore . . . [r]are aquatic and terrestrial plant and animal communities[.]²⁶²

²⁵⁶ 16 U.S.C. § 1536(a)(2).

²⁵⁷ Biological Evaluation at 7.

²⁵⁸ *Id.*

²⁵⁹ *Id.*

²⁶⁰ BiOp at 19.

²⁶¹ 36 C.F.R § 219.9.

²⁶² 36 C.F.R. § 219.9(a)(2).

Additional, species-specific NFMA plan components indicate that:

The responsible official shall determine whether or not the plan components . . . provide the ecological conditions necessary to: contribute to the recovery²⁶³ of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern within the plan area. If the responsible official determines that the plan components . . . are insufficient to provide such ecological conditions, then additional, species-specific plan components, including standards or guidelines, must be included in the plan to provide such ecological conditions in the plan area.²⁶⁴

The Forest Service's Biological Evaluation and the Project fail to meet these requirements for several reasons. First, the Biological Evaluation provides an incomplete project effects analysis on the species because it fails to include any discussion of how the Forest Service plans to maintain or restore the NLEB or other sensitive species in the project area.²⁶⁵ The Forest Service admits to some negative short-term project effects on the NLEB, but then references conflicting scientific evidence to assert long-term benefits. For example, the Biological Evaluation suggests that some of the project activity outcomes (such as open habitat for foraging) may yield long-term benefits to the NLEB.²⁶⁶ This suggestion is in direct conflict with other studies that describe preferred habitats for the NLEB.²⁶⁷ Second, the Biological Evaluation fails to explain how the Project will contribute to the recovery of the NLEB to the point at which its listing as endangered is no longer necessary. Finally, the Biological Evaluation indicates the Project activities may indirectly impact the NLEB, but it does not include discussion of species-specific plan components to provide the required ecological conditions necessary for the bat's recovery. For these reasons, the Forest Service fails to meet its obligations under NFMA as they relate to the NLEB and other sensitive species.

²⁶³ NFMA definition of "Recovery": "For the purposes of this subpart, and with respect to threatened or endangered species: The improvement in the status of a listed species to the point at which listing as federally endangered or threatened is no longer appropriate." *Id.* at § 219.19.

²⁶⁴ *Id.* at § 219.9(b)(1).

²⁶⁵ *See generally* Biological Evaluation at 6-10.

²⁶⁶ *Id.* at 7.

²⁶⁷ *See, e.g.*, Species Status Assessment at 18-19 (Exhibit 1) (explaining "most foraging occurs . . . under the canopy . . . on forested hillsides and ridges" which "coincides with data indicating that mature forests are an important habitat type for foraging NLEBs"). Furthermore, NLEBs "seem to prefer intact mixed-type forests . . . for forage and travel rather than fragmented habitat or areas that have been clear cut." *Id.*

Requested Remedy: The Forest Service should complete additional site-specific analysis under the ESA and NFMA as well as NEPA to adequately address the impacts of the Project on the NLEB. This analysis should be done in an EIS, with additional Project-specific consultation with USFWS under the ESA.

VIII. The Project Violates the NFMA and the Forest Plan.

As previously discussed, NFMA requires the Forest Service to develop and implement a Forest Plan for each unit of the National Forest System.²⁶⁸ Projects in each forest must be consistent with their relevant Forest Plan.²⁶⁹ Reviewing courts must be able to reasonably ascertain the Forest Service’s compliance with that Forest Plan.²⁷⁰ 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 (NFMA requires plans to be revised at least every 15 years), the Project must still comply with, and yet fails to meet, the Plan’s goals and objectives to comply with NFMA in the following respects.²⁷¹

Scientific knowledge and ecosystem viability. The WMNF Plan requires the use of “the latest scientific knowledge to restore the land and forest where needed” and emphasizes a focus on “ecosystem viability within the context of New England.”²⁷² NFMA constrains the Forest Service timber harvest in the National Forest System to situations where “cuts are consistent with the protection of soil and the regeneration of the timber resources.”²⁷³ As discussed in our comment on the Draft EA, and in this objection at great length, the Project fails to use the latest scientific knowledge to restore the land.

The Project ignores relevant scientific knowledge of healthy forests and their importance to building climate resilience. The proposed treatments are not appropriate methods to meet the objectives and requirements of the WMNF Plan, considering the best available science. NFMA empowers responsible officials to “document how the best available scientific information was used” and “explain the basis for that determination,” as high quality scientific analysis and public scrutiny are essential to NEPA implementation.²⁷⁴ The Peabody West IRP does not use the best available science based on its failure to analyze and incorporate the conclusions of numerous recent studies on forest ecology, biodiversity, forest carbon, water quality, and more.

²⁶⁸ 16 U.S.C. §§ 1600–1614; 16 U.S.C. § 1604.

²⁶⁹ *Neighbors of Cuddy Mountain v. Alexander*, 303 F.3d 1059, 1062 (9th Cir. 2002); *See also* 16 U.S.C. § 1604(i); *Great Old Broads for Wilderness v. Kimbell*, 709 F.3d 836, 850 (9th Cir. 2013).

²⁷⁰ *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 963 (9th Cir. 2005).

²⁷¹ 36 C.F.R. § 219.7(a).

²⁷² WMNF Plan at 1-3.

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

²⁷⁴ 36 C.F.R. § 219.3; 40 C.F.R. § 1500.1(b).

Species protection. The Forest Service also fails to consider the project within the greater context of New England and the importance of the Project area’s habitat, which provides for species protection and interconnectivity. As discussed in more detail above, the Project fails to contribute to the “conservation and recovery” of the NLEB and its habitat, as required by the WMNF Plan.²⁷⁵

Public participation. In the Forest Plan, the Forest Service asserted that “[p]ublic participation will be an important part of the process we use for making site-specific management decisions.”²⁷⁶ With no evidence that public participation provided any meaningful direction to the Peabody West IRP, the Project reflects an abdication of this commitment.

Violations of Forest Plan guidelines and standards. As discussed in more detail elsewhere in Standing Trees’ comments and this objection, the Project also violates a number of Forest Plan guidelines and standards, including its limitations on impacts to scenic resources and water quality.

Requested Remedy: The Forest Service must ensure the Peabody West IRP fully complies with the WMNF Plan and revise the Project to reflect its requirements.

CONCLUSION

For the foregoing reasons, Standing Trees objects to the Peabody West IRP. To cure the manifest errors in the Final EA and FONSI, and given the significance of this Project, the Forest Service should prepare an EIS to adequately evaluate the significant impacts posed by the Peabody West IRP and develop revisions to the Project to ensure compliance with the ESA and NFMA. We look forward to hearing from you to discuss the issues raised in this Objection and specifically request a meeting with you pursuant to 36 C.F.R. § 218.11(a).

Respectfully submitted,

STANDING TREES

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²⁷⁵ WMNF at 1-8.

²⁷⁶ WMNF Plan - Final EIS - Appendix A at A-235.

Table of Exhibits

Number	Exhibit Title
1	Species Status Assessment for the Northern long-eared bat (<i>Myotis septentrionalis</i>) Version 1.2, USFWS (Aug. 2022), https://www.fws.gov/media/species-status-assessment-report-northern-long-eared-bat
2	National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1,196 (Jan 9, 2023)
3	Kellett et al., <i>Forest-clearing to Create Early-successional Habitats: Questionable Benefits, Significant Costs</i> , 5 FRONTIERS FOR GLOB. CHANGE 1 (Jan. 9, 2023)
4	Simard et al., <i>Net Transfer of Carbon Between Ectomycorrhizal Tree Species in the Field</i> , 388 NATURE 579 (Aug. 7, 1997)
5	Letter from Chris French, Forest Service Deputy Chief, to Regional Foresters (Apr. 18, 2023)
6	WMNF U.S. Forest Service Logging Projects Map
7	Endangered and Threatened Wildlife and Plants; Endangered Species Status for Northern Long-Eared Bat, 87 Fed. Reg. 73,488-504 (Nov. 30, 2022)
8	Endangered and Threatened Wildlife and Plants; Endangered Species Status for Northern Long-Eared Bat; Delay of Effective Date, 88 Fed. Reg. 4,908-10 (Jan. 26, 2023)
9	U.S. Fish and Wildlife Serv., <i>Northern Long-Eared Bat: State-Specific Information Sources</i> , https://www.fws.gov/sites/default/files/documents/Roost%20Tree%20and%20Hibernacula%20-%20State-Specific%20Data%20Links_2.pdf
10	N.H. Division of Forests and Lands, <i>NHB DataCheck Tool</i> , https://www4.des.state.nh.us/NHB-DataCheck
11	Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management 1 (Apr. 2023), https://www.fs.usda.gov/sites/default/files/mature-and-old-growth-forests-tech.pdf
12	Letter from Chris French, Forest Service Deputy Chief, re: Advance Notice of Proposed Rulemaking (Apr. 21, 2023)

13	Standing Analysis and Implementation Plan – Northern Long-Eared Bat Assisted Determination Key, Version 1.1, USFWS (April 2023), https://www.fws.gov/sites/default/files/documents/Standing%20Analysis%20Version%201.1%20April%202023.pdf
14	Lorimer and 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 AND ECOLOGY MANAGEMENT 41(2003), available at http://www.maforests.org/Lorimer%20and%20White%20-%20ES%20Habitat.pdf
15	Oswald et al., <i>Conservation implications of limited Native American impacts in pre-contact New England</i> , 3 NATURE SUSTAINABILITY 24 (2020), available at https://rex.libraries.wsu.edu/esploro/fulltext/acceptedManuscript/Conservation-implications-of-limited-Native-American/99900586062001842?repId=12350928850001842&mId=13362786220001842&institution=01ALLIANCE_WSU
16	Zaino et al., Vt. Fish and Wildlife Dept., Vermont Conservation Design – Natural Community and Habitat Technical Report 15 (March 2018), available at https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Conserve/VT%20Conservation%20Landscape-level%20Design/Vermont%20Conservation%20Design--Natural-Community-and-Habitat-Technical-Report-March-2018.pdf
17	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)
18	Miller et al., <i>Eastern National Parks Protect Greater Tree Species Diversity than Unprotected Matrix Forests</i> , 414 FOREST ECOLOGY AND MGMT. 74 (April 15, 2018)
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