

October 21, 2024

Submitted online at <https://cara.fs2c.usda.gov/Public//CommentInput?Project=61252>

Objection Reviewing Officer Joby P. Timm
Forest Supervisor
George Washington and Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, Virginia 24019

Re: Administrative objection to Archer Knob Project

Dear Objection Reviewing Officer Timm:

We respectfully submit this objection to the Archer Knob Project on behalf of the Virginia Wilderness Committee and the Southern Environmental Law Center.

I. Notice of Objection

The Virginia Wilderness Committee (VWC) and the Southern Environmental Law Center (SELC) hereby file this letter of objection to the draft Decision Notice (DN) and Finding of No Significant Impact (FONSI) and Environmental Assessment (Final EA) for the Archer Knob Project, pursuant to 36 C.F.R. Part 218. The Project is located on the North River Ranger District of the George Washington National Forest (GWNF), in Rockbridge and Augusta Counties, Virginia. The responsible official for the Project is Gregg Slezak, Ranger for the North River Ranger District. The legal notice of the opportunity to object was published in the Daily News-Record on September 6, 2024. This letter of objection is therefore timely. In accordance with 36 C.F.R. §§ 218.2 and 218.8, SELC shall serve as the Lead Objector who represents the other objectors for purposes of communication regarding the objection.

II. Introduction

Objectors are disappointed for several reasons to be filing this Objection, all of which suggest that the agency has had little interest in working with Objectors and the public to develop a sound Project—despite having the legal obligation to do so. The Forest Service's failure to even prepare a Response to Comments is indicative of the lack of responsiveness to Objectors' concerns. In fact, the Final EA fails to respond to most of the points that we raised in our November 2022 comments on the Draft Environmental Assessment (Draft EA).

Nor does the Final EA address the many serious impacts of this Project that remain: increasing sedimentation into impaired streams that contain threatened and endangered mussels; stream crossings that may not protect water quality and biota because the agency has not completed its environmental analysis or committed to an adequate engineering option; potential impacts to drinking water for over 600 people; unanalyzed impacts to Potential Wilderness Areas; potential impacts to threatened and endangered species; the carbon and climate impacts of this Project; and unanalyzed cumulative impacts.

Perhaps most disappointing is that agency communication and collaboration with Objectors and other members of the public have broken down to such this degree. The Forest Service's choice to withhold standard documents from the Final EA, such as the Biological Evaluation/Biological Assessment, is baffling. The Forest Service's failure to provide the very Project Record that it advertises in the EA as available in Harrisonburg office is confounding.

The National Environmental Policy Act (NEPA) requires the Forest Service to develop this information and share it with the public, and the agency usually does this as a matter of course. With this Project, however, the Forest Service even failed to share the Project Record in response to our April 2024 request under the Freedom of Information Act for the Project Record.¹ What in the world is going on?

Objectors have a long history of working with the Forest Service and other members of the public to develop collaborative projects that earn the support of the public. It is particularly disheartening to see this Project play out so poorly only a few years after the successful development and implementation of the North Shenandoah Project, which Objectors were pleased to help develop and be able to support. This Objection (as well as our pending objection to the Dunlap Creek Project) is what happens when the Forest Service stops talking to and working with the public. It is a race to the bottom.

We hope that the Forest Service will use the objection resolution period to engage with us constructively on this Project. We hope the agency wants to come to the table and begin rebuilding constructive relationships with Objectors and other members of the public. In the meantime, we cannot sit by while the agency attempts to steamroll through NEPA in order to approve nearly 5,000 acres of commercial logging that will harm water quality, threatened and endangered species, and other forest resources.

III. Discussion and Statement of Reasons

For the reasons detailed below, we believe the Final EA contravenes NEPA, the National Forest Management Act (NFMA), and likely the Clean Water Act (CWA).

A. Until Objectors can review the Project Record, discuss concerns with the Forest Service, and attempt to resolve those concerns, this Project cannot move to a final Decision Notice or implementation.

The Forest Service has improperly denied Objectors the access to relevant environmental information to which they are entitled and which NEPA mandates. **NEPA requires the Forest Service to “identify, consider, and disclose to the public relevant environmental information early in the process before decisions are made and before actions are taken.”** 40 C.F.R.

¹ Although the Forest Service has routinely shared key project documents in the past upon request, we were advised in 2024 to submit all requests under the Freedom of Information Act. Whether the hold-up in providing the Project Record is happening at the District-, Forest-, Region-, or National- level is irrelevant at this point. The Forest Service is one agency, and without timely providing Objectors with the relevant environmental information to which we are entitled, the “twin aims” of NEPA are not met.

§ 1500.1(b) (emphasis added).² “[P]ublic scrutiny [is] essential to implementing NEPA. *Id.* The statute’s famous “twin aims”—that the agency will consider the environmental impacts of its proposed actions, and that it will inform the public that environmental concerns have been part of the agency’s decisionmaking process—reflect a Congressional judgment that the public will get to check agencies’ work. *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983). In so doing, NEPA guarantees the public more than having to accept an agency saying, “trust us.”

Failing to adhere to this obligation “deprives the public of its procedural right to an adequate opportunity to participate in the [NEPA] process.” *Ohio Valley Env’t Coal. v. U.S. Army Corps of Eng’rs*, 674 F. Supp. 2d 783, 809–10 (S.D.W. Va. 2009); *see also Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng’rs*, 524 F.3d 938, 953 (9th Cir. 2008) (holding that NEPA requires agencies to “provide the public with sufficient environmental information . . . to permit members of the public to weigh in with their views and thus inform the agency decision-making process”); *State of Cal. v. Block*, 690 F.2d 753, 770–71 (9th Cir. 1982) (concluding that since it is “[o]nly at the stage when the draft EIS is circulated [that] the public and outside agencies have the opportunity to analyze a proposal and submit comment,” withholding information at this stage illegally “insulates [an agency’s] decision-making process from public scrutiny”).

To understand this Project proposal and determine if we have concerns to raise for the agency’s consideration through the NEPA process, Objectors must be able to review the underlying documents that inform the agency’s statements in the Final EA and Draft Decision Notice. The Draft Decision Notice makes explicit that the decision is based on these Project Records: “In reaching my decision, I relied on a District Interdisciplinary Team (ID Team) team comprised of Forest Service resource specialists to analyze the effects of the proposals described in the final EA, as well as input from public comments on the draft EA.”³

These Project Records include shapefiles, Specialist Reports, the Biological Evaluation/Biological Assessment (BE/BA), and field surveys. There is nothing new about this. We routinely request and receive this information without delay or rigmarole. Indeed, the Forest Service advises in the Final EA that this critical information is completed, supports the Final EA and FONSI, and is accessible to the public:

The full analysis can be found in the Archer Knob Specialist Report and the Archer Kob Project Biological Evaluation/Biological Assessment. The Project Record provides a central location where project information used in analysis is filed and would remain accessible to the public until a final decision for the project is signed. The Project

² *See also Sierra Nevada Forest Prot. Campaign v. Weingardt*, 376 F. Supp. 2d 984, 990 (E.D. Cal. 2005) (these regulations “require that an agency give environmental information to the public and then provide an opportunity for informed comments to the agency.”); *Ohio Valley Env’t Coal. v. U.S. Army Corps of Eng’rs*, 674 F. Supp. 2d 783, 809 (S.D.W.V. 2009) (“[F]ederal courts . . . have consistently held that public involvement lies at the center of NEPA’s procedural requirements.”).

³ Draft Decision Notice at 2.

Record is available for public inspection at the North River Ranger District Office in Harrisonburg, VA.⁴

Despite these assurances, the Forest Service has refused to provide these documents in the Final EA itself, which is standard for many of these documents, or to allow Objectors to view the Project Record. We first requested this information on April 2, 2024 while the Draft EA was out for comments.⁵ We clarified the request on April 30.⁶ In addition, on September 24, we filed an FOIA request seeking additional documents in the Project Record (from May 1, 2024 to September 24, 2024). As of October 21, 2024, we still have not received any responsive documents or shapefiles.

Examples of information in the Project Record that the Forest Service refers to and which Objectors have requested include, but are not limited to:

- Response to Comments⁷
- Shapefiles so that we can assess the proximity of Project units to resources or attributes such as Potential Wilderness Areas;
- Biological Evaluation and Biological Assessment (BE/BA)⁸
- Soil and Water Resources Report⁹
- Aquatics fisheries report¹⁰
- Project-scale Carbon Effects Report and Forest Carbon Assessment for the GWJNF¹¹
- SERA reports for proposed herbicides¹²

⁴ Draft EA at 15; Final EA at 16.

⁵ Email from K. Coffey to M. Yonce and J. Martin (Apr. 2, 2024) (transmitting Apr. 2, 2024 FOIA request) (attached).

⁶ Email from K. Coffey to M. Yonce and J. Martin (Apr. 30, 2024) (transmitting Apr. 30, 2024 FOIA request) (attached).

⁷ Draft Decision Notice at 3 (“Responses to relevant comments have been compiled in the Archer Knob Project Response to Comments document.”).

⁸ Final EA at 31 (“A detailed Biological Evaluation and Biological Assessment (BE/BA) has been completed for the Archer Knob project which analyzed potential effects to federally listed threatened and endangered species (T&E), Regional Forester’s (R8) sensitive species, and potential habitat within the project area.”).

⁹ Final EA at 56 (“The Proposed Action has the potential to affect water resources and aquatic biota; see the Soil and Water Resources Report for a breakdown of the proposed action by watershed.”), 57, 65.

¹⁰ Final EA at 70 (“Water quality monitoring data collected by the Forest Service is presented in the aquatics/fisheries report.”).

¹¹ Final EA at 88 (“The full detailed analysis can be found in the Archer Knob Vegetation Project Project-scale Carbon Effects Report and the Forest Carbon Assessment for the George Washington and Jefferson National Forests in the Forest Service’s Southern Region (Forest Service, 2019).”).

¹² Final EA at 27 (“SERA reports for all of the proposed herbicides are in Appendix B of this document.”); 49 (“The SERA assessment is located in the project file at the North River RD.”).

- Old growth tally sheets and any other records related to old growth surveys conducted in the Project area¹³
- Phase 1 reconnaissance archaeological survey¹⁴
- Stand exam surveys¹⁵
- Site specific surveys conducted April 2020 through July 2022¹⁶
- Botanical surveys¹⁷
- Non-native invasive plant surveys¹⁸
- TESLR surveys, including for Rusty patch bumble bee¹⁹
- Surveys conducted by Virginia Department of Natural Heritage²⁰
- USFS Center for Aquatic Technology Transfer surveys²¹
- Aquatic Organism Passage surveys²²
- Road field reconnaissance surveys²³
- Trail surveys²⁴

¹³ Final EA at 17 (“Old Growth: Surveys were completed and old growth patches would be avoided.”), 88, 90.

¹⁴ Final EA at 16 (“A Phase 1 reconnaissance archeological survey was completed throughout the project area.”).

¹⁵ Final EA at 17 (“Existing conditions were compiled using data from stand exam surveys, old growth surveys and the FS Veg Spatial Geo-database.”).

¹⁶ Final EA at 17 (“Site specific surveys were conducted from April of 2020 through July of 2022, in and around stands which were identified for treatment. Data were collected to determine the extent of old growth, stand structure, species composition, age, forest health, growth rates, presence of invasive plants and site productivity.”)

¹⁷ Final EA at 41 (“Botanical surveys were conducted by Virginia Department of Conservation and Recreation Division of Natural Heritage (DCR/DNH) during the growing seasons of 2001-2022 within units proposed for management within the project boundary.”), 23–24, 38.

¹⁸ Final EA at 23–24 (“NNIP locations are noted and recorded by staff and contractors as various surveys such as common stand exams, botanica surveys and implementation planning are done.”).

¹⁹ Final EA at 37 (“Surveys conducted for this species in 2020-2022 within the project area by Mark Hepner (RPBB expert) and Ellison Orcutt (RPBB expert -DCR)”)

²⁰ Final EA at 37 (“All TES plant species were surveyed for in this project area by Department of Heritage botanists”)

²¹ Final EA at 75 (“Stream channel presence/absence and type (perennial, intermittent, channeled ephemeral) was validated in the field by USFS Center for Aquatic Technology Transfer (CATT) survey crews.”)

²² Final EA at 62 (“Previous AOP surveys conducted in the project area identified 18 known crossings to be impassible.”)

²³ Final EA at 80 (“Field reconnaissance surveys indicate that these roads currently are mostly stable, not actively eroding, and thus would require little or no mechanized equipment work for decommissioning.”).

²⁴ Final EA at 83 (“Augusta Springs Wetlands trail (Tr 100) has the potential to be impacted, however, survey work for this as well as the Uplands Trail (Tr 109) noted work to repair the asphalt and boardwalk pathing.”).

- Information related to wood turtle presence within the Project area²⁵

Now the Final EA and Draft Decision Notice are out. Once the Forest Service completes the administrative objection process, it can sign a Final Decision Notice and move on to implementation. Yet Objectors still have not received the very Project Record that the District says supports their environmental analysis and is sitting in their Hot Springs office.

All of the above are part of the Project Record. We are entitled to review them (absent any applicable exception for specific documents) and we need to review them to provide the “public scrutiny” at the heart of NEPA. *See* 40 C.F.R. § 1500.1(b). We have been denied this right, and the Project cannot move forward with a Final Decision Notice or implementation until Objectors have been provided with the documents, as well as time to review them, raise concerns with the Forest Service, and attempt to resolve those concerns. Without this information and the opportunity to provide feedback, the Forest Service has failed to satisfy the “twin aims” of NEPA. *See Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983); *Hodges v. Abraham*, 300 F.3d 432, 438 (4th Cir. 2002) (citation omitted).

B. The Final EA fails to adequately analyze impacts to water quality, including increased sedimentation into a 303(d) impaired waters and drinking water supplies.

As Objectors detailed in our November 2022 comments on the Draft EA, significant portions of the Forest Service’s project-level analysis for the Archer Knob Project fall well short of the bar set by NEPA, NFMA, and CWA.

1. The Final EA glosses over increased sedimentation into a 303(d) impaired stream containing endangered and threatened mussels.

The Forest Service’s analysis continues to ignore critical context for waters in this area: the Little Calpasture River is currently listed as impaired on Virginia’s 303(d) list,²⁶ and three of the five affected watersheds in the Project area are “Functioning at Risk,” while another—the Upper Little Calpasture—has “Impaired Function.”²⁷

Additionally, the Cabin Creek-Mill Creek watershed is listed as a Priority Watershed in the Forest Plan. While the watershed is no longer listed as containing an impaired stream, the Forest Plan has not been amended and the Final EA provides no analysis regarding the two TESLR aquatic species that also formed the basis of Priority Watershed designation.²⁸ Accordingly, the Final EA improperly dismisses the Priority Designation and fails to analyze impacts with this in mind. Under the Forest Plan, such watersheds are “a priority for inventorying soil and water improvement

²⁵ In its Literature Cited section, the Final EA cites to approximately 12 sources on the wood turtle, but there is no mention or analysis of wood turtle in the EA. Nor has the agency provided a copy of the BE/BA to Objectors. Is it present in the project area?

²⁶ Va. Dep’t of Env’t Quality, *2022 Impaired Waters – 303(d) List*, <https://www.deq.virginia.gov/home/showpublisheddocument/15440/638104332989370000> (attached).

²⁷ Final EA at 69–70.

²⁸ Forest Plan at D-3; Final EA at 51.

needs, restoring streams and streamside systems to fully functioning systems, restoring habitat for sensitive aquatic and riparian species, addressing opportunities to reduce impacts from roads through relocation or decommissioning, and evaluating any new proposals for special uses that could affect water quality.”²⁹ The Final EA, however, fails to analyze how the proposed action would help restore habitat for the James spinymussel or the Atlantic pigtoe or help this impaired stream meet Virginia’s water quality standards for aquatic life. In fact, this Project would do the opposite by increasing sedimentation into the Priority Watershed, in contravention of the Forest Plan and water quality standards.

Additionally, while the Final EA acknowledges that the Virginia Department of Environmental Quality has issued a total maximum daily load (TMDL) plan for a portion of the Little Calfpasture River downstream of the Project area, near the river’s confluence with the Calfpasture River, it continues to underplay the severity of the sediment loading its GRAIP model predicts will occur. The TMDL calls for a 40% reduction in sediment from nonpoint sources.³⁰ The model, however, predicts that the Project is will increase sediment loading in the Upper and Lower Little Calfpasture Rivers by 42 and 46%, respectively.³¹ These increases are so severe that the Forest Service proposes a “multi-year schedule” for activities in these watersheds to limit the amount of sediment entering each watershed in any one year.³² The Forest Service explains that this phasing is particularly necessary in the Lower Little and Upper Little Calfpasture Rivers, where predicted sedimentation increases are “well in excess of 10%.”³³

The agency then summarily concludes that while “[w]ater quality may be adversely affected by sediment loading over the short-term, . . . measurable long-term water quality effects resulting from the proposed action should not occur if Forest Plan standards, design criteria, and Virginia’s Forestry BMP are adhered to.”³⁴ In effect, the Forest Service “presumes, on this record, that whatever the impacts, it will be able to mitigate them successfully and further, that the procedures incorporated into the [Forest Plan] are sufficient to ensure that success.”³⁵

But “[a]n analysis based on presumptions at every step cannot support any sort of conclusion and especially not” a finding of no significant impact.³⁶ Specifically, the Forest Service cannot presume, without explanation, that unspecified mitigation measures and design criteria will mitigate the effects of its action. The special conditions of this area—impaired waters due to sedimentation and the presence of TESLR aquatic species—require the Forest Service to do more than just list mitigation measures and conclude without analysis that adverse impacts “should not occur.”³⁷ Courts have recognized that a “perfunctory description or a mere listing of mitigation

²⁹ Forest Plan at 2-2.

³⁰ Va. Dep’t of Env’t Quality, Total Maximum Daily Load Development to Address a Benthic Impairment in the Little Calfpasture River, Rockbridge County, Virginia 155 (Jan. 2010), available at <https://www.deq.virginia.gov/home/showdocument?id=11611&t=637692212162230000> (attached).

³¹ Final EA at 79.

³² *Id.*

³³ *Id.*

³⁴ Final EA at 80.

³⁵ *Ohio Valley Env’t Coal. v. Hurst*, 604 F. Supp. 2d 860, 895–96 (S.D.W. Va. 2009).

³⁶ *Id.* at 896.

³⁷ Final EA at 80.

measures, without supporting analytical data, is insufficient to support a finding of no significant impact.”³⁸ Moreover, “speculative and conclusory statements are insufficient to demonstrate that the mitigation measures would render the environmental impacts so minor as to not warrant an EIS.”³⁹

If anything, the GRAIP model’s predicted increases are a gross *underestimation* of sediment loading because the model only folds in the sedimentation effects of road construction. The model does not incorporate the sedimentation effects of: (1) the Project’s 163 proposed log landings; (2) approximately 60 miles of new overland skid trails;⁴⁰ (3) logging the forest itself; and (4) the long-term erosion impacts from tree removal. Though the Forest Service acknowledges these limitations at times,⁴¹ the agency neglects to consider what impact they might have on its actual effects determination.⁴²

The Final EA also attempts to obfuscate the severity of impacts on water quality by describing them as “short term” only. But the agency’s prediction that water-quality impacts will be “short term”—approximately “two years”—remains out of step with its decision to stagger activities in the Upper and Lower Little Calpasture watersheds over an unspecified “multi-year schedule.”⁴³ Moreover, the Final EA fails to acknowledge that even “short term” impacts on water quality can have long-term impacts on the ecosystem. Many of the species dwelling in the rivers and streams of the Project area only live for a few years. To aquatic macroinvertebrates, for example, two years of increased sediment loading may render streams uninhabitable for the equivalent of one to four generations⁴⁴—around 20 to 80 human years. Such impacts cannot be dismissed as “short term”—for these species, at least.

In addition to failing to comply with NEPA requirements, the Final EA fails to analyze whether the predicted water quality impacts are consistent with Virginia water quality standards. The Clean Water Act requires all federal agencies conducting activities “resulting, or which may result, in the discharge or *runoff of pollutants*” to comply with state water-quality standards, including those related to sedimentation.⁴⁵ Virginia has several water quality standards that might

³⁸ *Wyoming Outdoor Council Powder River Basin Res. Council v. U.S. Army Corps of Eng’rs*, 351 F. Supp. 2d 1232, 1251 (D. Wyo. 2005) (citations and internal quotations omitted).

³⁹ *Id.*

⁴⁰ Final EA at 71.

⁴¹ Final EA at 78 (recognizing that the model outputs are “a *minimum* estimate of erosion and sedimentation associated with logging plan features” (emphasis added)).

⁴² Final EA at 80 (merely noting that “[w]ater quality may be adversely affected by sediment loading”).

⁴³ Final EA at 79.

⁴⁴ See, e.g., Chesapeake Bay Program, *Mayflies*, <https://www.chesapeakebay.net/discover/field-guide/entry/mayflies> (explaining that most mayfly species “produce one or two generations per year”).

⁴⁵ 33 U.S.C. § 1323(a) (emphasis added); see also *Or. Nat. Res. Council v. U.S. Forest Serv.*, 834 F.2d 842, 848 (9th Cir. 1987) (holding that the Clean Water Act “requires all federal agencies to comply with all state requirements”).

be applicable to the proposed action, including a narrative standard for turbidity.⁴⁶ Moreover, Virginia’s anti-degradation policy prohibits the Forest Service’s actions in this Project from degrading existing beneficial uses of these waters.⁴⁷ Therefore, the Forest Service may not cause or contribute to the impairment of streams. However, the agency never discusses this narrative standard—or any other water quality standard, for that matter. This oversight not only violates NEPA but also exposes the Forest Service to potential liability under the Clean Water Act.

Given these significant water quality concerns and the Forest Service’s failure to analyze the impacts that additional sedimentation from this Project would have on an impaired waterway, the agency must drop units that would increase sedimentation into the impaired segment of the Little Calfpasture River from the Lake Merriweather Dam to its confluence with the Calfpasture River.

1. By acknowledging but failing to mitigate serious impacts to water quality and biota from inadequate roads and stream crossings, the Final EA violates NEPA, NFMA, and CWA.

NEPA requires federal agencies to “carefully weigh environmental considerations and consider potential alternatives to the proposed action *before* the government launches any major federal action.”⁴⁸ Forest Service regulations implementing NEPA require the same: “*before* making a decision on the proposal,” the agency must “[c]onsider[] the alternatives” and “[c]omplet[e] [its] environmental document review.”⁴⁹

The Forest Service has not completed its environmental review of Forest Roads 383B and 383E and cannot proceed through NEPA as if it has. Although the Final EA recognizes that stream fords on Forest Road 383B will require “engineered improvement to . . . avoid adverse effects to water quality and biota,” and that Forest Road 383E requires reconstruction along and crossing Daniel Run—perhaps even construction of an entirely new road prism—the Final EA and Draft Decision Notice fail to identify and commit to those actions.⁵⁰ Instead, the Forest Service is in the nonsensical position of (1) acknowledging that it is still considering options that may have significant adverse impacts like rutting, erosion, sedimentation, and safety hazards, while (2) concluding that even if it chooses those options, there will be no significant impacts.⁵¹ NEPA does not allow the Forest Service to have it both ways.

The Forest Service has identified portions of system roads 383B and 383E as “specific areas of concern.”⁵² Road 383B crosses the Little Calfpasture River floodplain where the river splits into

⁴⁶ 9 Va. Admin. Code § 25-260-20(A) (“State waters, including wetlands, shall be free from substances”—including “substances that produce color, tastes, *turbidity*, odors, or settle to form sludge deposits”—“in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with designated uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life.” (emphasis added)).

⁴⁷ *Id.*

⁴⁸ *Lands Council v. Powell*, 395 F.3d 1019, 1026 (9th Cir. 2005) (emphasis added).

⁴⁹ 36 C.F.R. § 220.4(c).

⁵⁰ See Final EA at 57.

⁵¹ Compare Final EA at 76–77 with 80.

⁵² Final EA at 57.

multiple braided channels.⁵³ This crossing is complicated because it is “currently configured as multiple fords with steep approaches” which “is not adequate for log haul.”⁵⁴ Similarly, Road 383E makes multiple crossings of Daniel Run and requires significant reconstruction activities in the stream’s riparian corridor.⁵⁵

While the Forest Service says it has conducted additional review and planning for these crossings, it has not in fact planned anything. Rather, it has identified six options, and **“all options are still being considered.”**⁵⁶ The Project Specific Resource Protection Measures state that “[c]onsultation with engineering staff is needed prior to opening the 383B road and crossing the multi-thread Little Calpasture River bottom.”⁵⁷ The Final EA also states that Forest Road 383E might be in an entirely new road prism.⁵⁸

The time for consultation with engineers and considering all options has passed. On its own timeline, the Forest Service decided to issue a Draft Decision Notice. The public has no more opportunities to review the proposal or submit comments. NEPA does not allow the Forest Service to “kick the can” this far, let alone even farther. To the contrary, NEPA requires that the Forest Service present the public with an actual proposal—not a series of options still under consideration. This is particularly true where several of those options under consideration would almost certainly have significant impacts and require an Environmental Impact Statement.

There is more at stake here than process. The NFMA requires the Forest Service to ensure that timber harvests only take place where protection is provided for streams and other bodies of water “from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment”⁵⁹ Moreover, Forest Service roads are only exempt from Clean Water Act requirements “where such roads are constructed and maintained, in accordance with best management practices, to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized”⁶⁰ The Final EA does not indicate that Forest Roads 383B and 383E will meet this standard. In that case, Clean Water Act Section 404 would require a dredge and fill permit for any activities that will involve the discharge of dredged or fill material into navigable waters.⁶¹ Having failed to develop stream crossings that adequately protect water quality or obtain a Section 404 permit, the Forest Service needs to drop units accessed by Forest Service Roads 383B and 383E.

⁵³ Final EA at 57, 76.

⁵⁴ Draft Soil and Water Resources Report at 13. The Forest Service has not made the Final Soil and Water Resources Report available for review.

⁵⁵ Final EA at 57.

⁵⁶ Final EA at 57 (emphasis added); 76–77.

⁵⁷ Final EA, Appendix A at 5.

⁵⁸ Final EA at 58.

⁵⁹ 16 U.S.C. § 1604 (g)(3)(E)(iii).

⁶⁰ 33 U.S.C. § 1344(f)(1)(E).

⁶¹ 33 U.S.C. § 1344.

2. The Final EA fails to consider or mitigate impacts to drinking water.

The Final EA does not assess the potential impacts of the Project on drinking water resources, and therefore cannot justify a finding of no significant impact. The Project area intersects two groundwater drinking water sources, Augusta Springs and Goshen Springs. The two springs collectively provide approximately 192,000 gallons of water per day to an estimated 645 people.⁶² The Final EA for the Project states that mechanical logging and associated plan features are proposed within the area of these water sources, but does not detail how much timber harvest is proposed.⁶³ The Final EA also fails to detail the potential impacts of the unidentified amount of timber harvest on these water sources. Rather, the Forest Service simply states that Forest Plan standards “are expected to prevent activities from impacting these drinking water sources” and that “Project implementation information will be provided to the water managers prior to activities starting.”⁶⁴ The Final EA includes no details of or even reference to any assessment of whether and how Augusta Springs and Goshen Springs might be impacted—rather, the Forest Service simply assumes that no matter what the potential impacts are, the Forest Plan standards will be sufficient to protect the water sources.

Without performing an assessment of potential impacts, the Forest Service cannot determine the impacts will not be significant. The agency is also missing the point of preparing an EA, which is to analyze and disclose to the public potential impacts *now*, and suggest adjustments to the proposed activities *now*, so that unnecessary impacts can be avoided during Project implementation.

C. The Final EA does not adequately assess impacts to Potential Wilderness Areas

The Final EA does not include any information assessing the potential impacts of the Archer Knob Project on the Archer Knob and Elliot Knob Potential Wilderness Areas (PWAs), and therefore cannot justify a finding of no significant impact. NEPA, Forest Service regulations, and the July 29, 2015 letter of clarification for the George Washington National Forest Revised Plan provide that the District must recognize the presence of PWAs and consider the Project’s effects on them.⁶⁵ Impacts that would affect an area’s future status and eligibility to be considered could have “serious environmental consequences” and therefore may need to be considered in a full EIS.⁶⁶ Indeed, the agency normally requires an EIS for any proposal that would substantially alter the undeveloped character of an uninventoried roadless area or potential wilderness area.⁶⁷

⁶² Final EA at 70.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *See Clarification of the 2014 George Washington National Forest Revised Land and Resource Management Plan*, available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3850362.pdf.

⁶⁶ *Smith v. U.S. Forest Serv.*, 33 F.3d 1072, 1078 (9th Cir. 1994) (“That the land has been released by Congress for nonwilderness use does not excuse the agency from complying with its NEPA obligations when implementing a land-use program.”).

⁶⁷ 36 C.F.R. § 220.5(a)(2).

The Final EA briefly notes that the Archer Knob and Elliot Knob PWAs overlap with the Project Area.⁶⁸ While the maps included with the Final EA are not clear, it appears the Forest Service is proposing forest regeneration, forest thinning, prescribed fire, wildlife thinning, and wildlife opening expansion in portions of the Archer Knob PWA.⁶⁹ The Final EA contains no assessment of whether and how these management activities could impact the character of the PWA; it finds that the Project and existing management in the area “would not have a significant impact on the distinguishing characteristics of the Elliot Knob or Archer Knob VMTs,” but does not consider or even mention whether the Project would impact distinguishing wilderness characteristics or the future status of the Archer Knob PWA.⁷⁰

We know the Forest Service has the tools and ability to perform such an assessment—in the North Shenandoah Project in 2019, the Forest Service analyzed potential impacts of the project on the Beech Lick Knob PWA using four wilderness characteristics: (1) untrammled, (2) natural, (3) undeveloped, and (4) outstanding opportunities for solitude or a primitive and unconfined type of recreation.⁷¹ This analysis was in accordance with the Forest Service Handbook 1909.12 Chapter 70 criteria for identifying potential wilderness areas and the Forest’s interpretation of these criteria in “Guidance on How to Conduct the ‘Potential Wilderness Area Inventory’ for the Revision to the Revised George Washington Forest Plan” that was included in the administrative record for the 2014 Forest Plan.⁷²

Having failed to analyze potential impacts to the Archer Knob PWA, the Forest Service cannot justify a finding of no significant impact and must drop proposed management in the PWAs.

D. The Draft EA fails to adequately consider impacts to terrestrial and aquatic species.

It is egregious that the Final EA does not include the Biological Evaluation and Biological Assessment (BE/BA) as part of the Final EA. As the Final EA acknowledges, this document “serves as biological input into the environmental analysis for project-level decision making to ensure compliance with the Endangered Species Act (ESA), NEPA, and National Forest Management Act (NFMA).⁷³ Without the BE/BA, Objectors and other members of the public cannot understand or assess these impacts. As the Final EA acknowledges:

⁶⁸ Final EA at 88–90.

⁶⁹ See Final EA Appendix B: Project Area Maps at 4, 8.

⁷⁰ Final EA at 90.

⁷¹ See U.S. FOREST SERVICE, NORTH SHENANDOAH MOUNTAIN RESTORATION AND MANAGEMENT PROJECT DRAFT ENVIRONMENTAL ASSESSMENT 135-44; Appendix 9 (Aug. 2019).

⁷² *Id.* at 135.

⁷³ Final EA at 31.

A detailed Biological Evaluation and Biological Assessment (BE/BA) has been completed for the Archer Knob project which analyzed potential effects to federally listed threatened and endangered species (T&E), Regional Forester's (R8) sensitive species, and potential habitat within the project area. *The BE/BA for the Archer Knob project, included changes in the Endangered Species Act for the northern long-eared bat and the tricolored bat that occurred during final project analysis efforts by the North River Ranger District. The BE/BA provides greater detail regarding individual species life history, habitat needs, and potential impacts and recommendations pertaining to this analysis. Consultation with the U.S. Fish and Wildlife Service (USFWS) was concluded on June 14, 2023 and USFWS concurred with the biological assessment for the federally listed species.* The existing biological assessment and associated biological opinion (BO) for the Forest Plan also are incorporated by reference. *The BO considered effects from proposed actions which are included in this assessment. It also included terms, conditions, and incidental take that would cover the actions proposed here.* Effects of management on R8 Sensitive species was also analyzed in the BE/BA with the intent of avoiding or minimizing the impacts to the species. If impacts cannot be avoided, the BE/BA analyzes the significance of potential adverse effects on the population or its habitat within the area of concern and on the species population. *It serves as biological input into the environmental analysis for project-level decision making to ensure compliance with the Endangered Species Act (ESA), NEPA, and National Forest Management Act (NFMA).*⁷⁴

The Forest Service cannot incorporate and rely on the BE/BA to conclude that the Project will have no significant impacts while simultaneously preventing Objectors and the public from accessing this critical Project Record.

1. Indiana bat

The Forest Service's environmental analysis acknowledges that the Project is likely to adversely affect the Indiana bat. Though the agency did not conduct surveys for the bat, it notes that the Project area contains potential habitat for the bat.⁷⁵ Since that is the case, the Forest Service assumes that Indiana bats are present and that the proposed action will result in take.⁷⁶ For example, the agency notes that "[o]ccupied roost trees removed during non-hibernation (spring, summer and fall), could result in mortality if bats are non-volant (flightless – generally 1 May to 31

⁷⁴ Final EA at 31.

⁷⁵ Final EA at 36.

⁷⁶ Draft Terrestrial Wildlife Specialist Report at 13. The Forest Service has not made the Final Terrestrial Wildlife Specialist Report available for review.

July) or unable to escape prior to or during felling.”⁷⁷ However, the agency concludes that this take and other proposed activities impacting the bat are authorized under the terms and conditions of the 2013 Incidental Take Statement issued in connection with the Forest Plan.⁷⁸

To the extent the Forest Service is suggesting it can greenlight logging or prescribed burning of known active roost trees, it is mistaken. As the agency notes, Indiana bat management in the Forest is governed by Forest-Wide standards 47 to 62. Those standards provide, among other things, that:

- FW-50: “When active roost trees are identified on the Forest, they [must] be protected with a $\frac{1}{4}$ mile buffer surrounding them.”⁷⁹
- FW-51: “No disturbance that will result in the potential taking of an Indiana bat will occur within an active roost tree buffer,” including disturbances from “[c]ommercial timber harvesting [and] road construction.”⁸⁰

The Forest Service’s conclusion that no seasonal harvest restrictions are necessary to protect the bat⁸¹ is also inconsistent with the Forest Plan. The Plan specifically provides that as the agency gains a “clearer understanding of how Indiana bats use the Forest, management activities described in the [Forest Plan] shall be directed to *areas and times of minimal bat use*.”⁸² As explained in the Final EA, the agency now understands that trees removed during the bats’ hibernation period (November through April) avoid direct effects to bats, while trees removed during spring, summer, and fall risk killing bats in occupied roost trees, especially between May 1 and July 31 when juvenile bats are non-volant.⁸³ Instead of crafting seasonal harvest restrictions based on this information, the Forest Service declines to impose any harvest restrictions at all. Since the Forest Service does not “describe how” this decision “is consistent with” the Forest Plan⁸⁴—and since its failure to impose time-of-year restrictions in fact contravenes the Forest Plan—the proposed action violates NFMA and its implementing regulations.⁸⁵

⁷⁷ Final EA at 34; *see also* Final EA at 35 (“A few roost trees suitable for Indiana and northern long-eared bats may be lost during road reconstruction, but direct effects are expected to be limited, because these bats naturally know of and use multiple roost trees in an area, and roosting habitat is not a limiting factor in the project area.”).

⁷⁸ Final EA at 36, 39.

⁷⁹ Forest Plan at 4-5.

⁸⁰ *Id.*

⁸¹ Final EA at 34.

⁸² Forest Plan at App’x J-2 (emphasis added).

⁸³ Final EA at 34.

⁸⁴ 36 C.F.R. § 219.15(d); *see also Cuddy Mountain*, 137 F.3d at 1377 (holding that the Forest Service must provide a reasoned explanation describing how “a site-specific project would be consistent with the land resource management plan of the entire forest”).

⁸⁵ 16 U.S.C. § 1604(i) (requiring all Forest Service actions to be consistent with the governing land management plan); 36 C.F.R. § 219.15(b) (same).

2. Northern long-eared bat and tricolored bat

The Final EA does not satisfy NEPA's requirement that the Forest Service "identify, consider, and disclose to the public relevant environmental information early in the process before decisions are made and before actions are taken."⁸⁶ As discussed above, the Final EA relies on the Project BE/BA and consultation with the Fish and Wildlife Service to determine potential impacts the northern long-eared bat and tricolored bat. No documentation of this consultation—including the FWS concurrence that a time-of-year restriction on a mere 68 acres of the over 5,000-acre timber harvest proposed for the Project will be sufficiently protective for the northern long-eared bat—has been provided to Objectors despite repeated requests.

We may have substantive comments on whether the time-of-year restrictions incorporated into the Project and consultation with the Fish and Wildlife Service satisfy the Endangered Species Act, but without access to the BE/BA, we have no way of knowing at this time.

E. The Final EA fails to adequately analyze carbon and climate impacts.

The Final EA fails to provide an adequate assessment of the direct, indirect, and cumulative carbon impacts of the Project as required by NEPA.⁸⁷ The agency's analysis contains three primary errors.

First, the agency failed to make its "Project-scale Carbon Effects Report" available to the public as required by NEPA. Without this document, it is impossible for the public to weigh in on the Project's carbon effects. Second, what little analysis the agency does provide in the Final EA falls woefully short of the bar set by NEPA. Third, the agency's analysis is not saved by its reference to the Forest Carbon Assessment for the George Washington and Jefferson National Forests. This document fails to apply the most recent and best available science, relying instead on outdated assumptions about carbon storage and sequestration that obfuscate the impact of harvest on forest carbon dynamics.

While we appreciate the Agency's efforts to take a forest-wide look at the scope of carbon effects from logging in the Forest, the absence of any project-specific analysis and dependence on debunked science in the Final EA ultimately curtail its value as a tool for analyzing either individual project-level or cumulative carbon impacts of this Project.

1. The Project record does not include the Project-specific carbon analysis, in violation of NEPA.

NEPA regulations allow agencies to incorporate material by reference into their environmental documents to "cut down on bulk."⁸⁸ However, agencies "shall not incorporate material by reference unless it is reasonably available for review, such as on a publicly accessible website, by potentially interested persons throughout the time allowed for comment or public

⁸⁶ 40 C.F.R. § 1500.1(b).

⁸⁷ 42 U.S.C. § 4332.

⁸⁸ 40 C.F.R. § 1501.12.

review. Agencies should provide digital references, such as hyperlinks, to the incorporated material or otherwise indicate how the public can access the material for review.”⁸⁹

Here, the Final EA explicitly relies on “Archer Knob Vegetation Project Project-scale Carbon Effects Report” to support its analysis.⁹⁰ However, the agency failed to include this key document in the Project Record or make it available online. Objectors requested this document (and many others) via FOIA, but the Forest Service has yet to produce it.

This situation is flatly inconsistent with NEPA. After all, one of the twin aims of NEPA is to guarantee that “relevant information about a proposed project will be made available to members of the public so that they may play a role in both the decisionmaking process and the implementation of the decision.”⁹¹ To that end, applicable regulations require agencies to “disclose to the public relevant environmental information early in the process *before* decisions are made and *before* actions are taken.”⁹² Failing to adhere to this obligation “deprives the public of its procedural right to an adequate opportunity to participate in the [NEPA] process.”⁹³

Here, the Forest Service has deprived the public of its procedural right to participate in the NEPA process by withholding its Project-specific carbon analysis.

2. The Final EA’s abbreviated carbon and climate analysis is inadequate.

The Final EA’s carbon and climate analysis is flawed in two primary ways. First, the agency fails to consider the effects of the Project on the Project area when *added* to the compounding effects of climate change. A proper cumulative-effects analysis requires an agency to consider “the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions.”⁹⁴ This includes the reasonably foreseeable effects of climate change.⁹⁵

Available evidence suggests the Project could act synergistically with climate change. For example, the Final EA discloses that the Project “is expected to create conditions which could increase the spread of [non-native invasive plants].”⁹⁶ We also know that climate change may

⁸⁹ *Id.*

⁹⁰ Final EA at 88.

⁹¹ *Hodges v. Abraham*, 300 F.3d 432, 438 (4th Cir. 2002) (citation omitted).

⁹² 40 C.F.R. § 1500.1(b) (emphases added).

⁹³ *Ohio Valley Env’t Coal. v. U.S. Army Corps of Eng’rs*, 674 F. Supp. 2d 783, 809–10 (S.D.W. Va. 2009); *see also Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng’rs*, 524 F.3d 938, 953 (9th Cir. 2008) (holding that NEPA requires agencies to “provide the public with sufficient environmental information . . . to permit members of the public to weigh in with their views and thus inform the agency decision-making process”); *State of Cal. v. Block*, 690 F.2d 753, 770–71 (9th Cir. 1982) (concluding that since it is “[o]nly at the stage when the draft EIS is circulated [that] the public and outside agencies have the opportunity to analyze a proposal and submit comment,” withholding information at this stage illegally “insulates [an agency’s] decision-making process from public scrutiny”).

⁹⁴ 40 C.F.R. § 1508.1(g)(3).

⁹⁵ *Appalachian Voices v. U.S. Dep’t of Interior*, 25 F.4th 259, 271 (4th Cir. 2022) (holding that “[i]t is clear . . . that climate change typically must form part of the [cumulative-effects] analysis in some way”).

⁹⁶ Final EA at 24.

exacerbate these effects: “[w]armer temperatures could increase the number and intensity of wildfires” in the South, “as well as outbreaks of damaging forest pests,” including non-native invasive species.⁹⁷ Similarly, the Final EA discloses that the Project may increase sediment loads in certain watersheds by as much as 46%.⁹⁸ We also know that “climate change is also expected to increase the frequency and intensity of flooding, and thus sedimentation.”⁹⁹

Considering all of these impacts together within the Project area, as the agency must, shows that the Project’s effects on non-native-invasive spread and sedimentation—among other things—will be made *even worse* by the compounding effects of climate change. Yet the Final EA does not acknowledge this possibility. The failure to do so violates NEPA.

Second, the Final EA fails to account for the cumulative carbon effects of other similarly situated timber projects. As noted above, a proper cumulative-effects analysis requires an agency to consider “the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions.”¹⁰⁰ This includes analyzing the effects “from individually minor but collectively significant actions taking place over a period of time”¹⁰¹—like other Forest Service timber projects.

Together, these projects have (globally) minor “but collectively significant” effects on carbon storage and emissions.¹⁰² For example, Forest Service data shows that in the Southern Region timber harvest accounts for more than two-thirds of all carbon emissions on national forest lands.¹⁰³ Yet the Final EA entirely fails to consider the carbon effects of the Project together with any other projects at the local, regional, or national level. This failure violates NEPA.

Instead of aggregating cumulative effects—as required by NEPA—the Final EA inappropriately weighs the effects of the Project *against* other carbon sources on the Forest. Specifically, the Final EA observes that “the total combined proposed harvest and prescribed fire acres *represents less than one percent* of the 1.1 million acres of forested land on the [George Washington and Jefferson National Forests] and that the scope and degree of change [in carbon storage caused *by the Project*] would be minor.”¹⁰⁴ But weighing the carbon storage effects of the Project against the storage potential of the larger landscape flips the cumulative-effects analysis

⁹⁷ EPA, Climate Impacts in the Southeast, https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-southeast_.html; *see also* U.S. Geological Survey, Assessing Climate-Sensitive Ecosystems in the Southeastern United States (2016), <https://pubs.usgs.gov/of/2016/1073/ofr20161073.pdf> (attached).

⁹⁸ Final EA at 79.

⁹⁹ *Appalachian Voices*, 25 F.4th at 278.

¹⁰⁰ 40 C.F.R. § 1508.1(i)(3).

¹⁰¹ *Appalachian Voices, v. U.S. Dep’t of Interior*, 25 F.4th 259, 271 (4th Cir. 2022) (holding that “[i]t is clear . . . that climate change typically must form part of the [cumulative-effects] analysis in some way”).

¹⁰² Richard Birdsey et al., U.S. Forest Serv., Assessment of the Influence of Disturbance, Management Activities, and Environmental Factors on Carbon Stocks of U.S. National Forests, App’x 4 at 18 (2019) (explaining that even small reductions in national forest carbon stocks can “represent very large amounts of [lost] climate mitigation benefit”) (attached).

¹⁰³ *Id.* at 39.

¹⁰⁴ Final EA at 87.

on its head. The point of a cumulative-effects analysis is not to determine “the *proportional share of responsibility* the federal agency bears for the [harm to the resource], but *what [harm] might result* from the agency’s proposed actions in the present and future human and natural contexts.”¹⁰⁵ Put simply, carbon effects cannot be dismissed as a drop in the larger bucket.

CEQ’s current climate guidance confirms the inadequacy of the Final EA’s approach. According to that guidance, “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. Such a statement merely notes the nature of the climate change challenge, and is not a useful basis for deciding whether or to what extent to consider climate change effects under NEPA.”¹⁰⁶ Despite this clear guidance, the Final EA ultimately concludes that the Project’s effects on carbon are just a drop in the larger bucket. This inadequate analysis violates NEPA.

3. The Final EA inappropriately relies on the Forest Carbon Assessment, which is riddled with outdated assumptions and data.

In the carbon analysis it does perform, the Final EA cites to the Forest Carbon Assessment for the George Washington and Jefferson National Forests in the Forest Service’s Southern Region.¹⁰⁷ In that Assessment, the agency acknowledges that “Forest Service (FS) policies and CEQ recommendations require the use of best available science and data in NEPA analyses.”¹⁰⁸ Yet the climate assessment is plagued by debunked science and outdated data, each of which obscure rather than explain the potential carbon impacts of harvests at the broad forest level.

To start, the Assessment inappropriately relies on forest age as a primary factor in its assessment of forest carbon. Specifically, the Assessment repeatedly adopts the premise that “young forests generally have higher rates of carbon sequestration while older forests have greater carbon stocks.”¹⁰⁹ Then, observing that in the George Washington and Jefferson National Forests, forests “are mostly middle-aged and older (greater than 80 years), and few stands are young,” the Assessment draws the conclusion “that while forest carbon stocks of the George Washington and Jefferson NF have increased in recent decades, carbon stocks may decline due to forest aging in the coming decades without additional disturbance.”¹¹⁰ In its assessment of “Future Carbon Conditions,” the Assessment states ominously that “[i]f the Forest continues on this aging trajectory, more stands will reach a slower growth stage in coming years and decades . . . , potentially causing the rate of carbon accumulation to decline.”¹¹¹ In its final summary, after

¹⁰⁵ *Pac. Coast Fed’n of Fishermen’s Associations v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1093 (9th Cir. 2005) (emphasis added).

¹⁰⁶ *Id.* at 1201.

¹⁰⁷ U.S. Dep’t of Agriculture Forest Service, *Forest Carbon Assessment for the George Washington and Jefferson National Forests in the Forest Service’s Southern Region* (2019) [hereinafter Forest Carbon Assessment].

¹⁰⁸ *Id.* at 6.

¹⁰⁹ *Id.* at 3; *see also id.* at 30 (“The rate of carbon uptake and sequestration generally declines as forests age.”); *id.* at 25 (“the oldest forests take up carbon more slowly than younger forests”); *id.* (describing “declines in carbon accumulation associated with historical disturbance, aging, and climate.”).

¹¹⁰ *Id.* at 4.

¹¹¹ *Id.* at 26.

identifying the George Washington and Jefferson National Forests as a historic carbon sink, the Assessment suggests that may have changed due to “a potential age-related decline in forest carbon stocks in the Southern Region (all land ownerships) beginning in the 2020s.” Indeed, in the entire section it commits to “Effects of Forest Aging,” the Assessment states that “the effects of non-disturbance factors”—i.e., forest age—“have become more important in influencing carbon trends on the forest” than historical disturbances and subsequent regrowth.¹¹²

Even if the Assessment had provided data on the stands impacted by this Project (it does not), the general analysis itself is flawed from the start. The premise that older trees sequester less carbon than young ones has long been debunked. In a 2008 meta-analysis examining data collected from temperate (70%) and boreal (30%) old-growth forests across the globe, Luyssaert et al. found that “biomass continues to increase for centuries,” contrary to “the commonly accepted and long-standing view that old growth forests are carbon neutral (that is, that photosynthesis is balanced by respiration).”¹¹³ Another global analysis from 2014 scrutinized data on 673,046 trees from 403 species and concluded that the “large, old trees do not act simply as senescent carbon reservoirs but actively fix large amounts of carbon compared to smaller trees; at the extreme, a single big tree can add the same amount of carbon to the forest within a year as is contained in an entire mid-sized tree.”¹¹⁴ As the study’s lead author explained to *Nature*, “[t]he trees that are adding the most mass are the biggest ones, and that holds pretty much everywhere on Earth we looked.”¹¹⁵ Studies at smaller scale have echoed the same finding. For example, an assessment of tree ring data from the Lilley Cornett Woods in Letcher County, Kentucky found that older trees were still achieving maximum growth rates after 200 years.¹¹⁶

Beyond making outdated assumptions about the carbon effects of forest aging, the Assessment obscures the carbon impacts of the Project by reciting flawed and irrelevant statements about the emissions impact of forest regeneration and of harvested wood. The Assessment suggests that “[i]n some cases, removing carbon from forests for human use can result in lower net contributions of GHGs to the atmosphere than if the forest was not managed, if carbon stored in wood products, substitution effects, and forest regrowth is considered.”¹¹⁷ The Assessment does not define the parameters of such cases, or ask or answer whether this Project might represent one of them. Instead, in quantifying decreases in carbon stocks on the George Washington and Jefferson National Forests, the Assessment qualifies its estimate of 1.27% loss, noting that “[t]hese estimates represent an upper bound because they do not account for

¹¹² *Id.* at 24.

¹¹³ Luyssaert et al. (2008). Old-growth forests as global carbon sinks. *Nature Letters*, Vol 455, 11 September 2008 (attached).

¹¹⁴ Stephenson, N., Das, A., Condit, R. et al. Rate of tree carbon accumulation increases continuously with tree size. *Nature* 507, 90–93 (2014). <https://doi.org/10.1038/nature12914> (attached).

¹¹⁵ Tollefson, J. Tree growth never slows. *Nature* (2014). <https://doi.org/10.1038/nature.2014.14536>.

¹¹⁶ Ryan W. McEwan, Neil Pederson, Adrienne Cooper, Josh Taylor, Robert Watts, and Amy Hruska. Fire and gap dynamics over 300 years in an old-growth temperate forest. *Applied Vegetation Science* 17 (2014) pp. 312-322.

¹¹⁷ Forest Carbon Assessment at 21.

continued storage of harvested carbon in wood products or the effect of substitution.”¹¹⁸ This statement is misleading.

The Forest Service’s own data about carbon remaining in primary wood products demonstrates how little harvested wood is stored for long periods of time.¹¹⁹ A decade after harvest, 57% of the carbon stored in the original forest—which likely took many decades or centuries to sequester—has been released to the atmosphere.¹²⁰ Carbon emissions associated with the timber sale continue increasing over time as wood products are disposed so that fifty years post sale, 70% of the carbon once stored in the harvested forest has been released to the atmosphere.¹²¹ After fifty years, only 12% of the carbon in the harvested forest is being stored in in-use wood products.¹²² Although the Assessment admits, vaguely, that the duration of carbon storage varies by product,¹²³ the implication that the carbon sequestered in manufactured wood products meaningfully mitigates the carbon impacts of timber harvest is simply inaccurate, even according to the Forest Service’s account.

The reality for energy generation from biomass is even worse. The Assessment suggests that “wood-based energy can displace fossil fuel energy, resulting in a substitution effect that provides added benefits for greenhouse gas emissions reductions, beyond the carbon stored in the products themselves.”¹²⁴ But substituting woody biomass for fossil fuels does not cause a net reduction in carbon emissions—quite the opposite. “Since in general woody biomass is less energy dense than fossil fuels, and contains higher quantities of moisture and less hydrogen, at the point of combustion burning wood for energy usually emits more greenhouse gases per unit of energy produced than is the case with fossil fuels.”¹²⁵

Elsewhere, the Assessment attempts to vaguely minimize the impact of harvest on carbon by noting that “regrowing forests sequester carbon, eventually accumulating the same amount of carbon initially emitted, in the absence of further disturbance or climate change.”¹²⁶ First, any observations that presume an absence of climate change are irrelevant at best, misleading at worst. Second, even in the best-case scenario, forests do not re-sequester the carbon emitted during

¹¹⁸ *Id.* at 29.

¹¹⁹ See U.S. Forest Serv., Assessment for the Nantahala and Pisgah National Forests 83 (2014), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd532825.pdf (attached).

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

¹²³ Forest Carbon Assessment at 15.

¹²⁴ *Id.* at 15.

¹²⁵ Duncan Brack, Woody Biomass for Power and Heat Impacts on the Global Climate 14 (February 2017), <https://www.chathamhouse.org/sites/default/files/publications/research/2017-02-23-woody-biomass-global-climate-brack-final2.pdf> (attached). See also SELC, Comments on the Department of Treasury’s Treatment of Forest-Derived Biomass Electricity Under Section 45Y (Nov. 4, 2022) (explaining that burning wood emits more carbon dioxide than fossil fuels per unit of electricity generated) (attached).

¹²⁶ Forest Carbon Assessment at 10; see also *id.* at 15 (“Much of the amount of harvested carbon that is initially transferred out of the forest can also be recovered with time, as the forest in the affected area regenerates and grows over the decades following harvest.”).

timber harvest for multiple decades to centuries at best.¹²⁷ Brushing that significant time gap away with an “eventually” flouts the fact that achieving emissions reductions is highly time critical. The Biden-Harris Administration has set a target of “net-zero emissions economy-wide by no later than 2050.”¹²⁸ The existing forest is sequestering carbon now. The possibility of breaking even on carbon emissions decades or centuries later is so remote as to be irrelevant.

Finally, the Assessment raises potential changes to the forest’s carbon stocks with which the Final EA fails to grapple. From 1990 to 2011, the Assessment identified timber harvest as the primary disturbance affecting forest carbon stocks, estimating that it reduced total forested area by less than 2.6% over that 21-year period.¹²⁹ Insect disturbances came close behind, impacting 1.92% of forested areas.¹³⁰ Lacking quantitative data on forest disturbances over the past 15 years, the Assessment did not attempt to estimate timber harvest loss, but it did highlight a health advisory report on the George Washington and Jefferson National Forests completed by the Forest Service in 2023. According to that report, 21% of the forest biomass is “at risk,” which means that without remediation, that portion of forest will experience a 25% reduction due to insects and disease over the next 15 years. Put simply, that means the Forest Service predicted a 5.25% loss of forest biomass in the George Washington and Jefferson National Forests between 2013 and 2027, absent any logging activity. The Assessment is correct to conclude that such a loss “may have subsequent carbon implications,” but it needed to analyze that implication further, quantifying predicted losses and adding them to the cumulative carbon costs associated with this Project and others on the Forest.

F. The Final EA’s cumulative-effects analyses impermissibly weigh the effects of the Project against other environmental stressors.

The purpose of a cumulative-effects analysis, as its definition suggests, is to assess the impacts of the proposed action “when *added* to the effects of other past, present, and reasonably foreseeable actions.” But instead of adding impacts together here, the Forest Service *weighs* the effects of the proposed action against all other “past, present, and reasonably foreseeable actions.”

To list a few examples:

- “Long-term effects of [White-Nose Syndrome] are unknown currently, but it is likely that Indiana bats, northern long-eared bats, and R8 sensitive bat species will be further affected by [White-Nose Syndrome] and those cumulative effects *may exceed any action that the project or Forest Plan implementation would cause.*”¹³¹

¹²⁷ See Tara Hudiburg et al., Meeting GHG Reduction Targets Requires Accounting for All Forest Sector Emissions, 14 Env’t Rsch. Letters (2019) (noting that carbon removed from old-growth forests, for example, will not be fully replaced for hundreds of years—“and cannot be recovered [ever] if current management practices continue”) (attached).

¹²⁸ Executive Order 14057, 86 Fed. Reg. 70,935 (Dec. 8, 2021).

¹²⁹ Forest Carbon Assessment at 18.

¹³⁰ *Id.*

¹³¹ Final EA at 39 (emphasis added).

- “Potential cumulative effects to sword-leaf phlox also include competition from non-native invasive species and altered natural disturbance regimes. . . . [However,] contribution of the proposed actions to the cumulative negative effects of [non-native invasive plants] *is expected to be small.*”¹³²
- “It was determined that the total combined proposed harvest and prescribed fire acres *represents less than one percent* of the 1.1 million acres of forested land on the [George Washington and Jefferson National Forests] and that the *scope and degree of change would be minor.*”¹³³
- “Considering cumulative effects, the proposed action would not contribute to an increase of NNIP *at the landscape level.*”¹³⁴

In effect, the Forest Service repeatedly finds that the impacts of the Project are a drop in the bucket when compared to the effects of larger environmental stressors. But weighing the effects of the Project against landscape-level stressors like this flips the cumulative-effects analysis on its head. The point of a cumulative-effects analysis is not to determine “the proportional share of *responsibility* the federal agency bears for the [harm to the resource], *but what [harm] might result* from the agency’s proposed actions in the present and future human and natural contexts.”¹³⁵ “Noting that a particular environmental resource is degraded” by larger stressors “is not an excuse or justification for further degradation.”¹³⁶

G. The Final EA indicates that the action alternative will or may have significant effects, necessitating an EIS.

For the many reasons explained above, the Forest Service’s Final EA fails to adequately analyze the environmental impacts of the Project. The limited analysis the agency *did* conduct, however, reveals that the Project will or may have significant environmental effects.

Any major Federal action that “will or *may*” have a significant effect on the quality of the human environment requires preparation of an EIS.¹³⁷ To be sure, if the need for an EIS is unclear, an agency may first prepare an EA—as the Forest Service did here. But if the evidence before the agency is inadequate to conclude that a major federal action will *not* have a significant effect on the environment, the agency *must* prepare an EIS.¹³⁸ A decision not to prepare an EIS is unreasonable “[i]f substantial questions are raised regarding whether the proposed action may have a significant effect upon the human environment.”¹³⁹

¹³² Final EA at 40 (emphasis added).

¹³³ Final EA at 87(emphases added).

¹³⁴ Final EA at 24 (emphasis added).

¹³⁵ *Pac. Coast Fed’n of Fishermen’s Associations v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1093 (9th Cir. 2005) (emphasis added).

¹³⁶ *Coal. to Protect Puget Sound Habitat v. U.S. Army Corps of Eng’rs*, 417 F. Supp. 3d 1354, 1364 (W.D. Wash. 2019).

¹³⁷ 42 U.S.C. § 4332(C); 40 C.F.R. § 1508.1(b) (2020) (emphasis added).

¹³⁸ *See* 40 C.F.R. § 1508.1(b) (2020).

¹³⁹ *Save the Yaak Comm. v. Block*, 840 F.2d 714, 717 (9th Cir. 1988) (internal citations omitted).

Here, the limited analysis the Forest Service conducted confirms the need for an EIS.

IV. Request for Relief

The proposed action threatens to cause significant effects to the Project area. Unless the action alternative is modified, the Forest Service will be required to analyze these significant impacts in an EIS. For the foregoing reasons, Objectors respectfully request that the Forest Service and Objectors come to a mutually satisfactory agreement regarding:

- A. Before the decision notice is signed, Objectors will receive all documents, shapefiles, and other files in the Project Record and a reasonable opportunity for (a) Objectors to raise and discuss concerns with Forest Service staff arising out of Objectors' review of the Project Record; and (b) Forest Service staff and Objectors to resolve concerns and settle this administrative objection.
- B. The Forest Service will drop units accessed by Forest Service Roads 383B and 383E due to their problematic crossings of the Little Calfpasture River and Daniel Run.
- C. The Forest Service will drop units that would increase sedimentation into the impaired segment of the Little Calfpasture River.
- D. The Forest Service will drop all management in Potential Wilderness Areas.
- E. The Forest Service will impose time-of-year restrictions for timber harvest to protect endangered and threatened bat species.
- F. The Forest Service will adequately assess the direct, indirect, and cumulative carbon impacts of the Project as required by NEPA.

We look forward to discussing the above issues with you.

Respectfully submitted, and signed for Objectors,



Kristin Davis, Senior Attorney
Katherine Coffey, Associate Attorney
120 Garrett Street, Suite 400
Charlottesville, VA 22902
(434) 977-4090
kdavis@selcva.org
kcoffey@selcva.org

Ellen Stuart-Haentjens, Executive Director
Mark Miller, Field Director

Virginia Wilderness Committee
P.O. Box 1235
Lexington, VA 24450
(540) 464-1661
estuarthaentjens@vawilderness.org
mmiller@vawilderness.org

V. List of attachments:

1. Email from K. Coffey to M. Yonce and J. Martin (Apr. 2, 2024) (transmitting Apr. 2, 2024 FOIA request).
2. SELC Archer Knob FOIA Request (Apr. 2, 2024).
3. Email from K. Coffey to M. Yonce and J. Martin (Apr. 30, 2024) (transmitting Apr. 30, 2024 FOIA request).
4. SELC Archer Knob Revised FOIA Request (Apr. 30, 2024).
5. Va. Dep't of Env't Quality, *2022 Impaired Waters – 303(d) List*, <https://www.deq.virginia.gov/home/showpublisheddocument/15440/638104332989370000>.
6. Va. Dep't of Env't Quality, Total Maximum Daily Load Development to Address a Benthic Impairment in the Little Calpasture River, Rockbridge County, Virginia (Jan. 2010), available at <https://www.deq.virginia.gov/home/showdocument?id=11611&t=637692212162230000>.
7. EPA, Climate Impacts in the Southeast, https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-southeast_.html.
8. U.S. Geological Survey, Assessing Climate-Sensitive Ecosystems in the Southeastern United States (2016), <https://pubs.usgs.gov/of/2016/1073/ofr20161073.pdf>.
9. Richard Birdsey et al., U.S. Forest Serv., Assessment of the Influence of Disturbance, Management Activities, and Environmental Factors on Carbon Stocks of U.S. National Forests (2019).
10. Luyssaert et al. (2008). Old-growth forests as global carbon sinks. *Nature Letters*, Vol 455, 11 September 2008.
11. Stephenson, N., Das, A., Condit, R. et al. Rate of tree carbon accumulation increases continuously with tree size. *Nature* 507, 90–93 (2014). <https://doi.org/10.1038/nature12914>.
12. Tollefson, J. Tree growth never slows. *Nature* (2014). <https://doi.org/10.1038/nature.2014.14536>.
13. Ryan W. McEwan, Neil Pederson, Adrienne Cooper, Josh Taylor, Robert Watts, and Amy Hruska. Fire and gap dynamics over 300 years in an old-growth temperate forest. *Applied Vegetation Science* 17 (2014) pp. 312-322.
14. U.S. Forest Serv., Assessment for the Nantahala and Pisgah National Forests (2014), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd532825.pdf.
15. Duncan Brack, Woody Biomass for Power and Heat Impacts on the Global Climate (February 2017), <https://www.chathamhouse.org/sites/default/files/publications/research/2017-02-23-woody-biomass-global-climate-brack-final2.pdf>.
16. SELC Comments on the Department of Treasury's Treatment of Forest-Derived Biomass Electricity Under Section 45Y (Nov. 4, 2022).
17. Tara Hudiburg et al., Meeting GHG Reduction Targets Requires Accounting for All Forest Sector Emissions, 14 *Env't Rsch. Letters* (2019).