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Via online submission through CARA (<https://cara.ecosystem-management.org/Public//CommentInput?Project=54346>)

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

Re: Eastern Divide Insect and Disease Project Phase II (Eastern Divide Ranger District,
Jefferson National Forest)

Dear Reviewing Officer Timm:

We respectfully submit this objection to the Eastern Divide Insect and Disease Project Phase II on behalf of the Virginia Wilderness Committee, The Clinch Coalition, the Sierra Club – Virginia Chapter, and the Southern Environmental Law Center.

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I. Notice of Objection

The Virginia Wilderness Committee (VWC), The Clinch Coalition (TCC), the Sierra Club – Virginia Chapter (Sierra Club), 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 (EA) for the Eastern Divide Insect and Disease Project Phase II (Phase II or Project), pursuant to 36 C.F.R. Part 218 and § 218.8.¹ The Project is located on the Eastern Divide Ranger District of Jefferson National Forest (JNF), in Bland, Giles, Pulaski, and Wythe Counties, Virginia. The responsible official for the Project is Beth Christensen, District Ranger for the Eastern Divide Ranger District. The legal notice of the opportunity to object was published in the Roanoke Times on October 6, 2020. 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

It has been a long and winding road to get here today. The District has made important improvements to this project, particularly in terms of process and the decision to prepare and EA, which was entirely necessary. The District has also made important modifications to protect forest resources. There are, however, a few critical remaining errors. Fortunately, we believe there is a simple path forward to address our concerns.

We have invested a great deal of time, energy, and expense in this project, providing extensive comments throughout. We have hired experts to assess the District's proposal and claims and to oversee and collect field data needed to make that assessment. To be frank, we were often doing work that the Forest Service should have already done to fulfill its obligations under the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Jefferson Forest Plan, and other laws and regulations.

As discussed below and in previous comments, many of the problems arose because this project was not developed based on identified purpose and need. Rather, the District first developed its logging plans and then worked in reverse to generate purpose and need for that logging. And nary a shortcut was overlooked, with the District's goal of logging as much as possible, as quickly as possible, with as little analysis as possible, clear at all times. Stand exams were not conducted to diagnose forest health needs until well after logging plans had been proposed and even then came only after repeated document requests to see the data. Old growth surveys mostly have not been completed to this day. In short, the analysis needed to

¹ See below for Objectors' contact information. Objectors actively participate in the management of the Jefferson National Forest, submitted written comments throughout the Project, and participated in public meetings regarding the Project. Objectors are very familiar with this project area; their members use and appreciate these specific lands, and the many values and resources of these lands; and this project will directly and significantly affect their members' use and enjoyment of these lands.

show this project would not have significant effects and complied with the law has been lacking from the start.

To make matters worse, this process eroded trust at precisely the time the District was asking for more trust from the public. This project confirms that when it comes to project development and analysis, most “shortcuts” do more harm than good – while honesty, transparency, and good work will speed the process. Like the Forest Service, we want to move through NEPA constructively and efficiently. And we look forward to working with the new District Ranger to do just that in future projects.

But first, there remain a few lingering issues with this project that must be corrected. *First*, the proposed regeneration logging in the watershed of Pulaski’s drinking water would violate the Forest Plan, which allows vegetation management in lands subject to management prescription 9A1 only in limited circumstances that are not present here. *Second*, the District needs to complete old growth surveys and share them with interested parties before implementation. We are optimistic that we can reach a resolution on these matters and look forward to discussing ideas with you. Thank you in advance for considering our concerns.

III. Discussion and Statement of Reasons

A. The District’s proposal to log in management prescription 9A1 Source Water Protection Watersheds violates NEPA and the NFMA.

The District cannot lawfully authorize the proposed logging in units within the Peak Creek, Tunnel Hollow, and Caseknife working areas that are in management prescription 9A1 Source Water Protection Watersheds. We acknowledge that the Forest Plan allows the District to manage land in management prescription 9A1, and that this management can include low-intensity logging under certain circumstances. But the Forest Plan imposes careful parameters for such logging, allowing it only for specific reasons and with special limitations. Why? Because these limitations “reflect ... the higher priority of protecting drinking water.”² Unfortunately, the proposed action flouts the priority that the Forest Plan has already set. The District’s proposal to intensely log 268 acres in management prescription 9A1 Source Water Protection Watersheds improperly prioritizes timber volume over drinking water protection, violating both the letter and spirit of the Forest Plan’s requirements for these precious few acres of the Jefferson.³

1. The Jefferson Forest Plan provisions to protect drinking water sources

It is worth remembering why the Forest Plan bestows special protections on areas such as these 268 acres – that is, why the Forest Service distinguished them from the 112,000+ acres allocated to 8A1 Mix of Successional Habitats in Forested Landscapes. The reason is simple:

² Forest Plan at 3-152.

³ Only 3% of the Jefferson National Forest is allocated to management prescription 9A1 Source Water Protection Watersheds. Forest Plan at 3-151.

because Virginians living in nearby Pulaski rely on these lands to help protect their drinking water. The Forest Service must prioritize drinking water protection in these relatively few – but nonetheless critical – acres if the agency is to comply with the Forest Plan and honor its commitment to the people whose drinking water is affected.⁴

This was sufficiently vital during forest plan revision for the Forest Service to set such land apart in a separate management prescription focused on providing clean drinking water:

Safe drinking water is essential to protect public health. Managing land to prevent or mitigate source water contamination is often more cost-effective and may better protect human health than treating water after it has been contaminated. Water from national forests are relatively low in contaminants when compared with urban and agricultural land uses. Nevertheless, many common practices on forests can contaminate drinking water sources if proper mitigating measures are not applied.

The Safe Drinking Water Act Amendments of 1996 require every State to perform source water assessments of all public drinking water sources and make the results public by 2003. In Virginia, Source Water Protection areas are delineated 5 miles upstream from the intake for water systems, which serve at least 25 people for 60 days or more per year.

Management of source water protection areas is designed to protect both surface and ground water drinking water sources while also taking a more active role in maintaining the health of the forest communities through vegetation management and providing for the needs of early successional wildlife habitat across the Forest. The Jefferson National Forest serves as the source of several public drinking water supplies in Virginia and is expected to participate with the State and local government in preparing assessments to assure safe drinking water. . . .

The emphasis of this prescription is to provide clean drinking water by maintaining healthy watersheds containing healthy forests.⁵

For these reasons, the Forest Plan allows vegetation management in 9A1 areas only to achieve a few specific purposes that “are focused on protecting drinking water sources” by

⁴As Pulaski acknowledges in its recently updated Comprehensive Plan, “Gatewood Reservoir, which serves as the primary water supply for the Town ... drains approximately 32 square miles of the Jefferson National Forest.” Pulaski Comprehensive Plan at 36, available at <https://bit.ly/35Pz3bB>. The national forests’ protection of drinking water is not a new concern. Indeed, the Weeks Act of 1911 established eastern national forests “for the purpose of conserving the forests and the water supply of the States.” Pub. L. 61-435, 36 Stat. 961 (1911).

⁵ Forest Plan at 3-151 (emphasis added).

“maintaining healthy watersheds containing healthy forests.”⁶ In relevant part, these include activities to:

- Maintain and restore stand structure and native species composition that is resistant to large scale disturbance that could affect drinking water including ... insect and disease epidemics;
- Reduce insect and disease hazard; or
- Control non-native invasive vegetation.⁷

Moreover, any logging may be only of “low intensity,” which is reflected in Plan requirements for longer rotation ages and a lower percentage of early successional habitat.⁸ In addition, any harvesting that occurs in 9A1, “focus[es] on what is retained in the stand, not on wood fiber production” and “harvest practices are modified to recognize the watershed values of these lands.”⁹

As we explain below, the proposed logging in these 9A1 units is (1) not consistent with the limited reasons that vegetation management is allowed in 9A1, and (2) not the type of low intensity harvest that the Forest Plan sometimes permits. Either one of these flaws by itself would be fatal to the proposal to log in 9A1 areas. Taken together, they underscore why harvest in the affected units must be dropped.

2. The Final EA impermissibly ignores facts and science related to gypsy moth, oak regeneration, and adverse impacts of the proposed logging on forest health and drinking water protection.

We urge the Reviewing Officer to read in full our June 2019 scoping comments and February 2020 Draft EA comments, which we attach and incorporate fully into this Objection.¹⁰ For your convenience, we will summarize the relevant discussions again. We also provide a new field report regarding conditions in all proposed 9A1 units.

a. Background

As we have explained above and in our past comments on this project, lands in management prescription 9A1 require the Forest Service to manage vegetation only for specific purposes and only with a light touch, because the overarching purpose of 9A1 is to protect watersheds—not to produce timber. But the proposed logging in these areas simply does not fit the bill. The Final EA proposes coppice with reserves logging that is not low intensity, would not reduce insect and disease hazard and/or produce stands more resistant to insect and

⁶ Forest Plan at 3-151 to 3-152.

⁷ Forest Plan at 3-153 to 3-154.

⁸ Forest Plan at 3-152.

⁹ Forest Plan 3-152.

¹⁰ Pursuant to 36 C.F.R. § 218.8(b)(4), Objectors incorporate by reference all comments they have previously submitted on this Project. Attachments to our previous comments are available in the record.

disease epidemics, and would increase (not control) non-native invasive vegetation. We have presented a great deal of on-the-ground data and science establishing these facts in previous comments. Yet, although the District has previously acknowledged these truths in other aspects of the project/process and adjusted accordingly, it has ignored the same evidence with respect to 9A1 areas.

In an apparent attempt to justify intense logging in the watershed set aside specifically to protect Pulaski's drinking water, the Final EA recycles several hypothetical, incorrect, and already-debunked theories. Specifically, the Final EA claims that regeneration logging to a residual basal area of 15-25 square feet per acre will address forest health concerns resulting from past gypsy moth defoliation and current gypsy moth presence in the project area by (1) regenerating oak through stump sprouting to maintain a significant oak presence in the project area, and (2) increasing early succession habitat (ESH) in the project area.¹¹

Reading the Final EA's discussion of logging in the drinking water source watershed for Pulaski is like stepping back in time to the start of this project in 2018. At that time, the District proposed to approve over 1,300 acres of regeneration harvest without NEPA analysis and public comment. The District purported to do this under the Farm Bill's Insect and Disease Infestation Categorical Exclusion which applies to "priority projects...that reduce the risk or extent of, or increase reliance to, insect or disease infestation."¹²

Back then, to evaluate the Forest Service's claims and theories regarding gypsy moth threats in the project area, we hired Dr. Rose-Marie Muzika, Ph. D, who is an expert in the field of forest health, forest disturbance ecology, and applied ecology. Dr. Muzika has studied and published several papers describing gypsy moth population dynamics, the ecological effects of gypsy moth, mortality agents of oak, and secondary pests of oaks. Dr. Muzika directed a field consultant in the gathering of extensive field data regarding gypsy moth in the project area — work that the District itself had not done. After reviewing that site-specific data, Dr. Muzika concluded (1) that the proposal contradicted the best available scientific information and (2) that the proposed regeneration harvest would not reduce the risk or extent of, or increase resilience to gypsy moth. As a result, we explained that the Insect and Disease CE was not available for this project, which was and remains, an ordinary timber project at its core. After several candid conversations in the office and in the field with District staff, the District agreed and decided to prepare an EA.

Given the extensive data and science in the record that refutes the District's conjecture and theories related to gypsy moth, it is frustrating that the District is now reviving all of the same language in an attempt to justify logging in Pulaski's drinking water source watershed. As we previously demonstrated and articulate again below, the District is relying on an incorrect and untenable theory not supported by science. At bottom, the proposed logging in 9A1 areas would not comply with the Forest Plan and would thus violate the NFMA.¹³ And because the

¹¹ Final EA at 2.

¹² 16 U.S.C. 6591(a)(1).

¹³ See 16 U.S.C. § 1604(i).

District still has not adequately responded to our comments on these points, moving forward would violate NEPA also.

b. Conditions in proposed logging units

While the counties in which the project is located have experienced some gypsy moth defoliation in the past, the District has provided little to no information about the actual conditions of the harvest units recently or currently. In order to understand the Purpose and Need ostensibly driving this project, SELC has filed several Freedom of Information Act (FOIA) requests over the years. We have reviewed all project documents produced to date regarding gypsy moth in the project area.

The District first introduced this project – which followed the similar Phase 1 project – to the public in July 2018. From the start, it was clear that the District had developed this project in reverse, starting with logging plans and working backwards from there to fill in the blanks. Indeed, the District did not even conduct stand exams needed to evaluate conditions and assess management needs until it was pressed repeatedly for such data in a FOIA request. This was over one year into the development of this project, at which point the District had long been asserting that gypsy moth conditions in the stands called for intense management. Finally, at an open house meeting in late May 2019, we learned that the District had only started conducting stand exams one day earlier. Compounding the problem, the District was not conducting common stand exams as is typically done but was instead completing “quick plots” that provide far less information. At any rate, the stand data collected in 2019 was obviously not used to develop the project in 2018.

This lack of information presented a real obstacle to assessing whether this large, intensive “gypsy moth” project made sense and whether use of the Insect and Disease Infestation CE would be appropriate. Without field data, we had no way of knowing, for example: whether gypsy moth had defoliated these stands previously; if so, how many rounds of recent defoliation had occurred; the degree of damage and/or mortality that resulted from previous gypsy moth defoliation; the overall health of these stands and vigor of trees within them; or the species composition within the stands.

i. 2019 conditions

Since the District had not done this work before developing the project and proposing silvicultural prescriptions, SELC was compelled to hire a consultant, Jessica Bier, to perform field surveys guided by Dr. Muzika, who advised on survey methods and reviewed data. From April through June 2019, Ms. Bier surveyed plots within all seven working units of this project.¹⁴ Her primary objectives were to (1) assess impacts from defoliation that may have

¹⁴ J. Bier Eastern Divide Insect and Disease Project Phase II, Jefferson National Forest, Summary of fieldwork at 1 (“Bier report”) (attached to scoping comments and here).

occurred in recent years (e.g., crown damage, mortality); and (2) determine the levels of current gypsy moth populations in the areas.¹⁵

Ms. Bier recorded tree species composition, crown condition (as a measure of vigor), and the presence of gypsy moth egg masses and/or defoliation in 131 plots throughout the project area. Her findings indicate that the units are in good health overall, gypsy moth presence is low, and there is no scientific basis for the District to predict outbreak, defoliation, or mortality in the next 1-3 years:

- In many units, there is no notable damage or mortality, or it is minimal. It is unlikely that defoliation previously occurred in these units. In units with damage, it is mostly low to moderate levels.
- 77% of the 870 overstory plot tree crowns evaluated were classified as Good vigor, with extensive lateral branching, absent or minimal dieback, no or minor wounds/canker, little or no epicormic branching, and healthy foliage. 16% were classified as Fair vigor, and only 1% were classified as Poor vigor. 6% were dead.
- Oaks dominate the overstory in most units, although white and yellow pine are dominant in the overstory and/or midstory in some portions of some units. Other hardwood species are present, including sourwood, red maple, blackgum, hickory, and tulip poplar.¹⁶

We also reviewed gypsy moth trap counts near the 7 working areas and aerial surveys of defoliation from 2016-2018.¹⁷

ii. 2020 conditions

Following release of the Final EA, Ms. Bier again visited the Caseknife, Peak Creek, and Tunnel Hollow working areas in October 2020 to evaluate the District's continued claims regarding gypsy moth. As before, there is no indication of a gypsy moth threat in this area.¹⁸ Indeed, the District acknowledges in the Response to Comments that the leading edge of gypsy moth spread in Virginia is "already ... past the areas proposed for treatment in this project."¹⁹ And a Forest Health Specialist with the Virginia Department of Forestry confirmed to our

¹⁵ Id.

¹⁶ Id. at 3.

¹⁷ Declaration of Rose-Marie Muzika, Ph.D. at ¶¶ 17-22 ("Dr. Muzika declaration") (attached to scoping comments and here).

¹⁸ See J. Bier Eastern Divide Insect and Disease Project Phase II, Jefferson National Forest, Second Summary of Fieldwork ("Bier report #2") (attached).

¹⁹ Response to Comments at 7.

consultant in November 2020 that “no aerial surveys were done this year” because the Department of Forestry “didn’t receive any reports of widespread defoliation events.”²⁰

c. Gypsy moth science

Without any supporting data and despite ample record evidence to the contrary, the District continues to assert that regeneration logging in 9A1 Source Water Protection Watershed will address forest health concerns resulting from past gypsy moth defoliation and current gypsy moth presence in the project area by (1) regenerating oak through stump sprouting to maintain a significant oak presence in the project area, and (2) increasing early succession habitat (ESH) in the project area.²¹ As we have shown before, this assertion is incorrect for many reasons.

First, the best science rejects the District’s claim that it can somehow manage for gypsy moth *and* oak regeneration using the same silvicultural methods.²² Oaks, in general, are highly preferred by gypsy moths.²³ Throughout their range in North America, gypsy moths are most commonly defoliating red oaks and white oaks.²⁴ Reducing susceptibility thus tends to focus on reducing the prevalence of preferred host trees within a stand.²⁵ The most common silvicultural method for doing so is selectively thinning oak, particularly low vigor oak, and other preferred host species, *not* oak regeneration.²⁶ In other words, the District cannot regenerate oaks and manage for gypsy moth at the same time. But despite the fact that we included this important information in our previous comments, the District continues to claim that its project objectives are simultaneously “insect and disease” control and oak regeneration.

Second, the District continues to make unsupported statements such as “[t]rees are expected to be vigorous and mostly insect and disease free.”²⁷ This statement simply has no basis in reality. As we explained in our previous comments, recent studies suggest silvicultural treatments likely had no positive effect on oak vigor.²⁸ In fact, research has shown that the proposed harvest would likely do more ecological harm than good.²⁹ Why has the District still not addressed these studies or provided their own studies to support the conclusions in the Final EA?

The District also states that for coppice with reserves treatment, it might “salvage” dead, defoliated, and dying trees. But this oversimplifies the issues. As Dr. Muzika explained during

²⁰ See attached email from Virginia Dept. of Forestry (Nov. 4, 2020).

²¹ Final EA at 2.

²² June 24, 2019 Scoping Comments with Declaration of Rose-Marie Muzika, Ph.D. at 7-17.

²³ June 24, 2019 Scoping Comments with Declaration of Rose-Marie Muzika, Ph.D. at 8; Dr. Muzika Scoping Declaration ¶ 35.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ Draft EA 14.

²⁸ June 24, 2019 Scoping Comments with Declaration of Rose-Marie Muzika, Ph.D. at 12.

²⁹ Dr. Muzika Scoping Declaration ¶¶ 73-76.

the scoping phase, “defoliation” does not mean a tree is dying. Indeed, many factors affect whether a susceptible tree will die as a result of defoliation and trees can withstand multiple episodes of defoliation without dying.³⁰

The District’s continued failure to grapple with evidence contradicting its claims and conclusions in the Final EA violates NEPA.³¹ Moreover, even setting aside that there is no gypsy moth threat that needs addressed, the record shows that the proposed logging in 9A1 would not actually address such threats. And if the logging will not achieve stand structure and composition “that is resistant to large scale disturbance” such as insect and disease epidemics, the Forest Plan does not allow it.³² Yet that is precisely what the District is proposing. Because this logging would not comply with the Forest Plan’s standards for vegetation management in 9A1 areas, the proposed logging would violate the NFMA.³³

d. Oak regeneration science

Although oak regeneration ostensibly is a major goal of this project, the best science simply does not support the District’s claim that the proposed regeneration harvests will actually result in oak regeneration at all. According to the Final EA, the coppice with reserves treatments in 9A1 “would help to ensure the continued presence of an oak component in the areas targeted for treatment.”³⁴ We support responsible, science-backed management to achieve oak regeneration. Unfortunately, this project will not deliver. If oak regeneration is truly a major purpose of this project, the District needs to reconsider the issue based on best science and propose a suite of management actions that are in fact likely to achieve this objective. NEPA and the NFMA require this.³⁵

The overall project area is composed primarily of upland oak stands, with some areas of mixed oak-pine stands.³⁶ The higher quality sites support northern red oak, chestnut oak, black oak, with a minor component of yellow poplar and red maple.³⁷ Drier sites are dominated by chestnut oak, white oak, black oak, and scarlet oak, with scattered hickory, red maple, black

³⁰ Dr. Muzika Scoping Declaration ¶¶ 46-47.

³¹ Genuine Parts Co. v. EPA, 890 F.3d 304, 312 (D.C. Cir. 2018) (agency “cannot ignore evidence contradicting its position”); Native Ecosystems Council v. Marten, 883 F.3d 783, 795 (9th Cir. 2018) (agency violates NEPA where it presents information “so incomplete or misleading that the decisionmaker and the public could not make an informed comparison of alternatives.”).

³² See Forest Plan at 3-153 to 3-154.

³³ 16 U.S.C. § 1604(i).

³⁴ Id. at 2.

³⁵ Ogeechee-Canoochee Riverkeeper, Inc. v. U.S. Army Corps of Eng’rs, 559 F. Supp. 2d 1336, 1345 (S.D. Ga. 2008) (finding Corps’ decision arbitrary and capricious where it failed to support with evidence its conclusion that regeneration would occur, despite contradictory evidence in the record about appropriate silvicultural treatment to ensure regeneration); Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29 (1983) (agency action is arbitrary and capricious where it “offer[s] an explanation for its decision that runs counter to the evidence before the agency.”); 16 U.S.C. § 1604.

³⁶ Final EA 11.

³⁷ Id.

gum, and other hardwoods.³⁸ Some stands contain patches of white pine, pitch pine, shortleaf pine. Yellow pine is scattered throughout the area.³⁹ At times, the Final EA acknowledges the difficulty of regenerating oak in these oak-dominated stands: “There is little or no advanced regeneration of oaks in the understories of these stands,” which “suggests a difficulty in regenerating these stands in oak.”⁴⁰ Striped maple, red maple, sourwood, and patches of mountain laurel dominate the understory in most areas, while white pine dominates in some.⁴¹ Red maple, striped maple, and white pine “are likely to become more dominant than oaks in future stand composition since most oaks found on the [District] are classified as intermediate in shade tolerance and not able to compete with vegetation that has a high shade tolerance.”⁴² The District thus asserts that stump sprouting from live oaks is necessary to avoid future dominance by non-oaks such as red maple or yellow poplar.⁴³

Despite these difficulties, the Final EA expresses unsupported confidence that these oak-dominated stands will regenerate as oak forest: “Regenerating tree species composition is expected to be similar to the existing vegetation due to the viable seed sources and to the potential for coppice regeneration within the harvested stands.”⁴⁴ The District believes that “adequate [oak] regeneration is expected from stump sprouts of smaller to medium oak stumps and supplemented by advanced oak regeneration.”⁴⁵

The best science on oak regeneration does not indicate that all stands proposed for regeneration harvest will regenerate as oak stands. Indeed, the Draft EA predicted that certain stands will “likely convert to non-oak forest after harvest.”⁴⁶ Moreover, there is ample evidence across the entire Forest (and across Southern Appalachian national forests) of timber sales designed to promote oak regeneration that failed to do so, instead converting to dominance by other species like red maple and poplar.

Ms. Bier’s recent field review in working areas for this project provided such examples. This photo from the Peak Creek area shows the regeneration of a stand along FS Road 6733 that has regenerated in poplar, birch, red maple, and white pine.⁴⁷

³⁸ Id.

³⁹ Id.

⁴⁰ Id. at 1, 12.

⁴¹ Id. at 11.

⁴² Id. at 11.

⁴³ Id. at 1, 2.

⁴⁴ Id. at 15.

⁴⁵ Id. at 10.

⁴⁶ Draft EA Wildlife Habitat and Successional Forests Report 3, 10. It appears no Wildlife Habitat and Successional Forests Report accompanied the Final EA. Why not?

⁴⁷ Bier Report #2 at 10.



Similarly, these photos from along FS Road 6031 in the Bromley Hollow area illustrate regeneration and dominance by non-oak species.⁴⁸



⁴⁸ Bier Report #2 at 24.



The Final EA's failure to grapple with the impact of having "little to no" advanced oak regeneration in the project area is a critical flaw in project planning. Studies underscore the importance of advanced oak seedlings and regeneration in successfully regenerating oak. Indeed, as Dr. Muzika explained in her declaration, "without adequate large oak advance reproduction, oak regeneration failure is all but certain."⁴⁹ How does the District rationalize its conclusion that these stands will regenerate in oak?⁵⁰ What evidence or studies did the District rely on to conclude that stump sprouts, without advanced oak regeneration, would be sufficient? Not only are the District's conclusions unsupported, studies contradict the District's conclusions about stump sprouting as adequate to regenerate oak.⁵¹ The District seems to be planning on a miracle, which neither the NEPA nor the NFMA allow as a basis for a silvicultural prescription. NEPA and the NFMA require the District to acknowledge if its proposed regeneration harvest is instead likely to cause conversion to non-oak forest and analyze the impacts of doing so.⁵² The District must grapple with whether oak regeneration is a viable objective of this project as it is proposed.

⁴⁹ Dr. Muzika Draft EA Declaration ¶ 21.

⁵⁰ See Final EA at 15 ("Regenerating tree species composition is expected to be similar to the existing vegetation due to the viable seed sources and to the potential for coppice regeneration within the harvested stands").

⁵¹ See Dr. Muzika Draft EA Declaration ¶ 17-18.

⁵² See 16 U.S.C.A. § 1604(g)(3)(B) (Forest Service must "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives, and within the multiple-use objectives of a land management plan adopted pursuant to this section, provide, where appropriate, to the degree practicable, for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan")

Even if there was adequate oak regeneration in the project area, other site-specific factors and subsequent management are important to promoting oak regeneration. The District has apparently ignored these issues. First, the project's proposed low residual basal areas may create too much light, ultimately promoting shade intolerant competitors.⁵³ According to Dey, "the key to building populations of large oak advance reproduction is to provide adequate light to oak without aggravating problems from competing vegetation that will also respond to the increased light."⁵⁴ The District failed to analyze how its proposed residual basal areas will impact oak competition from shade intolerant species and subsequent oak regeneration in the project area.⁵⁵ The fact that the most intense harvest with the lowest residual basal area was proposed in an area dedicated to protecting the drinking water of Pulaski makes no sense.

Second, site index plays an important role in oak regeneration. Coppice with reserves may be an appropriate silvicultural procedure on a low quality site, but "heavy cutting on high quality sites may actually lead to a loss of oak from increased competition."⁵⁶ The District has acknowledged this issue and predicted that its proposed coppice with reserves treatment in Units 1, 2, and 4 in the Peak Creek working area will convert to non-oak forest. Many of the units in Peak Creek, Tunnel Hollow, and Caseknife seem to have similar site indices. Again, the District failed to grapple with this information.

Third, when considering its oak regeneration objective, the District failed to assess the role of canopy structure in promoting oak regeneration, specifically the value of an "open canopy" in creating conditions needed to establish and maintain oak reproduction and the competition of faster-growing and/or more shade-tolerant species like red maple and yellow poplar.⁵⁷ Yet the District did not consider the role that other management can play in achieving an open canopy to promote oak regeneration.⁵⁸ For example, the District should have considered whether intermediate treatments like thinning could better achieve the purpose and need of this project.⁵⁹ If the goal is to create canopy openness for regeneration to develop, a moderate to heavy thinning, which leaves an intact forest while creating opening in the canopy,

(emphasis added); 36 C.F.R. § 219.9(a)(iii) (Forest Service must have standards or guidelines maintain or restore "the diversity of native tree species similar to that existing in the plan area").

⁵³ See Dr. Muzika Draft EA Declaration ¶ 19 (noting that if the residual basal area "constitutes more than a 50% reduction of basal area, this would open the canopy substantially more than recommended.").

⁵⁴ D. C. Dey et al., *An Ecologically Based Approach to Oak Silviculture: A Synthesis of 50 Years of Oak Ecosystem Research in North America*, *Revista Colombia Forestal*, 13(2): 201-222, 208 (2010) (emphasis added).

⁵⁵ *Ogeechee-Canoochee Riverkeeper, Inc.*, 559 F. Supp. 2d at 1345; *Motor Vehicles Mfrs. Ass'n*, 463 U.S. at 43.

⁵⁶ See Dr. Muzika Draft EA Declaration ¶ 25.

⁵⁷ See, e.g., Lower Cowpasture Final EA at 9, 29-33 (proposing a variety of silvicultural treatments, including thinning, and prescribed fire to address the "greatest stresses and threats to the oak forest and woodlands system" which are "the lack of open conditions needed to establish and maintain oak reproduction and the competition of [other] species").

⁵⁸ These actions need not be in lieu of actions designed to achieve other objectives, such as ESH or wildlife objectives.

⁵⁹ Dr. Muzika Draft EA Declaration ¶ 20.

can serve the same purpose as a shelterwood treatment, while maintaining wildlife habitat and promoting intactness of the canopy and the forest.⁶⁰

The District should also have considered the role that prescribed fire following a silvicultural treatment can play in promoting oak regeneration.⁶¹ One recent paper found that where thinning and prescribed fire were used, regardless of the thinning treatment, “three prescribed burns increased white oak densities[,]” “thinned and burned stands had larger white oak seedling sprouts than those thinned with no burn[,]” and “[t]hinning with one fire resulted in the highest densities of large white oak reproduction.”⁶² Another study recognized the benefit of prescribed fire both at the beginning of the regeneration process in order to determine if “there is enough oak reproduction to proceed with oak regeneration” and also at the “end of the regeneration process as a release tool.”⁶³

Finally, the District did not consider outside impacts that may hinder oak regeneration, such as deer browse. One recent study found that excluding browsers, in addition to creating canopy gaps, “nearly doubled oak sapling importance values.”⁶⁴ We raised this issue. Why didn’t the District consider the current deer densities in the project area and how deer presence will affect the success of oak regeneration? Without this analysis, it would be difficult for the District to accurately predict whether oak regeneration will be successful in the project area.

In sum, the best scientific information shows that oak regeneration is difficult to achieve. An important factor in ensuring oak regeneration is the presence of advanced oak regeneration in the units to be treated. Studies also highlight the importance of open canopy conditions for oak regeneration. Additionally, they highlight the role that non-regeneration silvicultural methods like thinnings, followed by prescribed fire, can play to open the canopy while reducing competition. Outside influences, such as deer browse, must also be considered. Rather than grapple with any of this science, though, the District has proposed only regeneration harvest in an area with little advanced oak regeneration and proposes no subsequent management, other than some herbicide use, to encourage oak regeneration in the project area. In sum, the District

⁶⁰ *Id.* at ¶ 20.

⁶¹ *See id.* at ¶ 27; see also, C. J. Schweitzer et al., White Oak (*quercus alba*) Response to Thinning and Prescribed Fire in Northcentral Alabama Mixed Pine-Hardwood Forests, *Forest Science*, 65(6), 758-766 (2019).

⁶² C. J. Schweitzer et al., White Oak (*quercus alba*) Response to Thinning and Prescribed Fire in Northcentral Alabama Mixed Pine-Hardwood Forests, *Forest Science*, 65(6), 758-766 (2019).

⁶³ P.H Brose et al, A Meta-Analysis of the Fire-Oak Hypothesis: Does Prescribed Burning Promote Oak Reproduction in Eastern North America?, *Forest Science* 59(3), 330 (2013).

⁶⁴ M. Thomas-Van Gundy et al., Reversing Legacy Effects in the Understory of an Oak-Dominated Forest, *Canadian Journal of Forest Research*, 44(4): 350-364 (2014). *See also* J. Lorber, M. Thomas-Van Gundy, S. Croy., Characterizing Effects of Prescribed Fire on Forest Canopy Cover in the George Washington and Jefferson National Forests, Research Paper NRS-31. USDA, Forest Service, Northern Research Station (June 2018).

failed to consider the relevant science on oak regeneration or to demonstrate its proposal is likely to achieve the oak regeneration objective.⁶⁵

e. Ecological harms from the proposed logging

The Forest Plan allows logging in 9A1 areas only to achieve a few specific purposes that are focused on protecting drinking water sources by maintaining healthy watersheds containing healthy forests.⁶⁶ The District has failed to grapple with the ample evidence in the record showing that intense logging in 9A1 areas would likely do more harm than good.

i. Adverse impacts of logging versus potential impacts of gypsy moth

As we said in our scoping comments, there is an ever-growing body of literature that supports decisions by land managers not to actively intervene, particularly pre-emptively, in response to the presence of gypsy moth or other pests.⁶⁷ As several researchers concluded, [s]ince forest managers and researchers both have had limited success in predicting the occurrence of catastrophic events much before they occur, it is not practical to attempt to preempt the role of natural disturbances by harvesting stands prior to their occurrence.”⁶⁸

In 2006, forest ecology researchers undertook a study to “evaluate the hypothesis that active management can improve long-term ecosystem function by increasing ecosystem resilience and resistance.”⁶⁹ They did so by comparing the effects of wind and insect disturbance on forest “ecosystem structure, composition, and function[,]” with the effects of “salvage and preemptive [timber] harvesting.”⁷⁰ Noting that “[i]nsect and disease outbreaks often lead to increased harvesting of the host species, including preemptive cutting... and post-mortality salvage logging,” the authors pointed out that the timber harvest “may generate more profound ecosystem disruption than the pest or pathogen itself.”⁷¹

Studying the silvicultural interventions related to infestation by hemlock woolly adelgid (“HWA”), an invasive insect, serves as a good example.⁷² Kizlinski et al. compared the

⁶⁵ Genuine Parts Co., 890 F.3d at 312; Motor Vehicles Mfrs. Ass’n, 463 U.S. at 43.

⁶⁶ Forest Plan at 3-151 to 3-152.

⁶⁷ Dr. Muzika declaration at ¶ 73 (citing Gottschalk 1993 at 2, Figure A (even Gottschalk’s Silvicultural Guidelines, timber-focused as they were, recognized that in some conditions, it was better not to log trees in response to gypsy moth)).

⁶⁸ Id. (citing J. Aber et al., Applying Ecological Principles to Management of the U.S. National Forests, 6 Issues in Ecology 7, 13 (2000) (“Aber et al. 2000”)).

⁶⁹ Dr. Muzika declaration at ¶ 74 (citing D.R. Foster & D.A. Orwig, Preemptive and Salvage Harvesting of New England Forests: When Doing Nothing is a Viable Alternative, 20(4) Conservation Biology 959, 960 (2006) (“Foster & Orwig 2006”)).

⁷⁰ Id. (citing Foster & Orwig 2006 at 960).

⁷¹ Dr. Muzika declaration at ¶ 74 (citing Foster & Orwig 2006 at 963 (citations omitted)).

⁷² Dr. Muzika declaration at ¶ 75. HWA are a more aggressive invasive than gypsy moths because it disperses in a variety of ways, it reproduces twice per year, and it has no predators native to North

direct effects of infestation by HWA and the indirect effects of HWA infestation, namely intensive logging.⁷³ Kizlinski et al. found that HWA and logging impacted vegetation composition similarly but at different temporal and spatial scales.⁷⁴ HWA resulted in vegetation changes that were more gradual and more localized than vegetation changes following logging.⁷⁵ Post-disturbance “forest floor dynamics” differed in HWA-infested and logged sites because of the latter allowing much more light to reach the forest floor.⁷⁶ Whereas logging creates large and often uniform openings in a forest canopy, HWA disturbance changed forest structure in a manner that is similar to natural disturbances, which create gaps “... of mixed sizes depending on cause.”⁷⁷

Unlike HWA, logging “dramatically altered nitrogen cycling” compared to HWA-infested plots and undamaged plots.⁷⁸ In addition to causing “rapid nutrient losses from the disturbed area,” the authors stated that post-logging nitrification could have long-term effects on “site fertility.”⁷⁹

These results bring to mind a cautionary statement made by another team of researchers that included Kurt Gottschalk: “A key objective in management decisions after insect outbreaks should be to reduce susceptibility to future insect attack, so care must be taken to promote rather than to compromise the inherent resilience of temperate and boreal forests.”⁸⁰

Indeed, in 2015 a team of researchers, again including Kurt Gottschalk, stated “... that any decision to undertake active management must be explicitly weighed against the option of doing nothing – of letting ecosystem recovery proceed unaided...for which a solid understanding of forest stand dynamics is required.”⁸¹ Burton et al. described an “intervention continuum” that included options ranging from intensive management to doing nothing.⁸²

They further explained “[t]here is typically no need or incentive for active forest rehabilitation after an insect outbreak if overstory mortality is low, or if the understory is

America. Dr. Muzika declaration at ¶ (citing M.L. Kizlinski et al., Direct and Indirect Ecosystem Consequences of an Invasive Pest on Forests Dominated by Eastern Hemlock, 29 *Journal of Biogeography* 1489, 1490 (2002) (“Kizlinski et al. 2002”).

⁷³ *Id.* (citing Kizlinski et al. 2002 at 1490).

⁷⁴ *Id.* (citing Kizlinski et al. 2002 at 1500).

⁷⁵ *Id.* (citing Kizlinski et al. 2002 at 1496-98).

⁷⁶ *Id.* (citing Kizlinski et al. 2002 at 1498-99).

⁷⁷ *Id.* (citing Aber et al. 2000).

⁷⁸ *Id.* (citing Kizlinski et al. 2002 at 1500).

⁷⁹ *Id.* (citing Kizlinski et al. 2002 at 1500).

⁸⁰ *Id.* (citing P.J. Burton et al., Options for Promoting the Recovery and Rehabilitation of Forests Affected by Severe Insect Outbreaks, in *RESTORATION OF BOREAL AND TEMPERATE FORESTS* 495, 510 (John A. Stanturf ed., CRC Press 2d ed. 2015) (“Burton et al. 2015”).

⁸¹ Dr. Muzika declaration at ¶ 75 (citing Burton et al. 2015 at 507).

⁸² *Id.* (citing Burton et al. 2015 at 507-10).

already well stocked with vigorous seedlings and saplings or is soon expected to be so.”⁸³ The authors concluded that, “[p]rocesses of natural ecosystem recovery typically are more desirable, less intrusive, and less costly than active intervention.”⁸⁴ The researchers concluded “[a]ll evidence suggests that harvesting exerts greater impacts on ecosystem processes than leaving disturbed or stressed forests intact.”⁸⁵

After examining this project, Dr. Muzika found that the conditions did not weigh in favor of the Forest Service’s proposed regeneration logging.⁸⁶ As explained above, there is no evidence that the ecological integrity of the area has been reduced because gypsy moth is in the general area or units.⁸⁷ And as further explained above, the best available scientific information does not support silvicultural activities as an effective way to reduce susceptibility or vulnerability to gypsy moth.⁸⁸ Moreover, the proposed coppice with reserves treatments would likely to do more ecological harm than good for this the area.⁸⁹ The District failed to address these issues.

ii. Increased non-native invasive plants in the 9A1 areas

The Forest Plan directs the District to “eradicate non-native invasive plants when the infestations are isolated.”⁹⁰ The District, however, has not eradicated non-native invasive plants (NNIP) in the 9A1 logging units and access areas. Indeed, the Final EA acknowledges that “the stands have pockets of non-native invasive species ... in competition with forest cover.”⁹¹

Ms. Bier recently documented a great deal on NNIP in each of the 9A1 working areas, as well as throughout the project area. These include, among other species: Ailanthus, Asian bush honeysuckle; Japanese barberry; Japanese stiltgrass; Lespedeza; Oriental bittersweet; Paulownia; Spotted knapweed; Wineberry. The following photos are a handful of examples, while her attached report documents many more.

⁸³ *Id.* (citing Burton et al. 2015 at 507, 508 tbl 24.1 (identifying considerations that support no active intervention in response to an insect outbreak including “[n]o personal or community safety concerns” and “[s]atisfactory levels of overstory survival”).

⁸⁴ *Id.* (citing Burton et al. 2015 at 508).

⁸⁵ *Id.* (citing Foster & Orwig 2006 at 966).

⁸⁶ Dr. Muzika declaration at ¶ 76.

⁸⁷ *Id.*

⁸⁸ *Id.* (citing R.M. Muzika et al., Effects of Silvicultural Management on Gypsy Moth Dynamics and Impact: an Eight-Year Study, in PROCEEDINGS: POPULATION DYNAMICS, IMPACTS, AND INTEGRATED MANAGEMENT OF FOREST DEFOLIATING INSECTS 261, 261 (M.L. McManus & A.M. Liebhold eds., USDA Forest Service General Technical Report NE-247 1998); Muzika & Liebhold 2000 at 103-104).

⁸⁹ Dr. Muzika declaration at ¶ 76.

⁹⁰ Forest Plan at 3-153.

⁹¹ Forest Plan at 17.



Caseknife area: *Lespedeza* on an access road.



Caseknife area: *Ailanthus* along access road in the powerline right of way.



Caseknife area: Oriental bittersweet, ailanthus, and Japanese stiltgrass on access road.



Gatewood area: Ailanthus along FS Road 6871



Gatewood area: Ailanthus, Japanese stiltgrass, and Oriental bittersweet along FS Road 6871.



Peak Creek area: Lespedeza at FS Road 6733 gate.



Tunnel Hollow area: Ailanthus along Unit 4.



Tunnel Hollow: Japanese stiltgrass on the shoulder of Rt. 610.

The Final EA does not grapple with how the proposed harvest can increase ground disturbance, traffic, and light into these areas without exacerbating these infestations, which it should instead be focused on eradicating according to the Forest Plan.⁹² As the above pictures illustrate, roads are a vector for the spread of NNIP. Similarly, NNIP are expected to colonize openings – especially large openings – in new harvest areas. The below photo from the Lower Cowpasture project is emblematic of the unfortunate outcome in so many logging units post-harvest.



Lower Cowpasture Lime Kiln area: Japanese stiltgrass infestation post-harvest.

Given the fast-moving, tenacious nature of NNIP and the difficulty in eradicating them once established, there is a very significant risk that proposed harvest in 9A1 areas (and throughout the project area) will increase NNIP. Yet despite all evidence to the contrary regarding the tenacity and near-impossible challenge of controlling NNIP, the Final EA simply asserts that it will do so. This is yet another instance in which the Final EA seems to bet on a miracle. Again, neither NEPA nor the NFMA allow this as a basis to proceed with management that could have a significant impact. This is particularly true in a management prescription in which logging is only allowed where it will improve forest health.

⁹² See Forest Plan at 17.

iii. Increased sedimentation into drinking water sources

The Final EA does not adequately analyze erosion and sedimentation risks based on soils and slopes within the proposed harvest units. Specifically, it does not combine information regarding soil types in the proposed logging units with a high erosion hazard, or that are failure prone, with a slopes analysis to determine where advanced harvest systems are required.

Our GIS analysis in the attached maps indicates many potential high-risk sites in the logging units that have moderate to severe erosion hazards and slopes over 35 percent. And our analysis indicates that there is good reason for concern, with many areas containing soil characteristics with a *severe* erosion hazard.⁹³ When considered in conjunction with slopes, there is even greater cause for concern. For example, units 4 and 5 in Tunnel Hollow, which are in Management Prescription 9A1, have soils with a high potential for erosion *and* appear to be along a ridge, with some slopes great than 35%. How does the District justify significant ground disturbance in a unit with highly erodible soils and steep slopes, which is located in a management area that emphasizes water quality protection? Additionally, the Forest Plan requires the District to use advance harvest methods in areas with highly erosive soils and steep slopes.⁹⁴ Why does the Final EA not address this requirement, which we raised? These issues underscore why considering soil type, as well as soil type in conjunction with slopes, is critical to an adequate and accurate sedimentation analysis. Moreover, Ms. Bier's fieldwork reveals that access roads have significant potential to introduce sedimentation, as in the case of FSR 6733's ford crossing of Peak Creek.⁹⁵

By disregarding information relevant to compliance with the Forest Plan standards, the District also risks violating NFMA, which requires that forest management decisions be consistent with the Forest Plan.⁹⁶ Additionally, NEPA requires this analysis to assess the impacts of the proposed logging on water resources. Indeed, "[t]he thrust of NEPA is that all pertinent environmental data be gathered in one place ... constituting a discussion of all relative environmental impacts of a proposed course or alternative courses of action which reflects that the agency has given all pertinent environmental matters a 'hard look.'"⁹⁷ And "NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of

⁹³ See Potential Soil Erosion and Steep Slope Hazard in Stands Proposed for Timber Harvest maps (attached).

⁹⁴ Forest Plan 2-33 (FW-111).

⁹⁵ See Bier Report #2 at 3.

⁹⁶ 16 U.S.C. § 1604(i).

⁹⁷ Ayers v. Espy, 873 F. Supp. 455, 468 (D. Colo. 1994) (citation omitted); Leavenworth Audubon Adopt-A-Forest Alpine Lakes Prot. Soc. v. Ferraro, 881 F. Supp. 1482, 1490 (W.D. Wash. 1995) (even though Forest Service assessed the percentage of soils in disturbed conditions, the agency still violated NEPA because it failed to adequately consider and document the project's impact on those soil conditions").

high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.”⁹⁸

3. The proposed logging in 9A1 violates the Forest Plan’s rotation age requirement for such drinking water protection areas.

The Forest Plan contemplates only “[l]ow intensity commercial timber harvest” in management prescription 9A1 in order to “maintain the long-term goals and stewardship objectives of the source water protection watershed.”⁹⁹ The Plan goes on to note that “longer rotation ages and a low percentage of early successional forest in these areas reflect a ‘low intensity’ approach to vegetation management and the higher priority of protecting drinking water.”¹⁰⁰

To this end, the Forest Plan requires a rotation age of 120-180 years for upland hardwoods and cove hardwoods.¹⁰¹ The Final EA, however, indicates these stands range in age from 83 to 138 years, with an average age of around 106 years.¹⁰² In its Response to Comments, the District asserts that this is acceptable because the stand ages are “well past the culmination of mean annual increment (CMAI) for these forest types and site productivities.”¹⁰³ This misses the point. The Forest Plan specifically provides a longer rotation age for these areas in order to ensure that only low-intensity harvest occurs. The District must comply with these rotation ages but has failed to do so. Proceeding with the proposed harvest in these 9A1 units would therefore the NFMA.

4. The Forest Plan would not allow any logging in channeled ephemeral zones in 9A1 areas.

As detailed above, we do not believe that the Forest Plan would allow the proposed logging in any of the 9A1 areas. We note, though, that even assuming the proposed logging could occur, the Final EA and draft Decision Notice fail to recognize that the District must exclude from harvest all channeled ephemeral stream zones within Management Prescription 9A1. The EA and draft Decision Notice provide that “[a]ll riparian zones, as identified in Appendix A of the Forest Plan, will be vehicle exclusion zones and no harvest will occur within those zones.”¹⁰⁴ Within Management Prescription 9A1 areas, the JNF Forest Plan further provides that “[c]hanneled ephemeral stream zones are managed as part of the riparian corridor.”¹⁰⁵ Consequently, channeled ephemeral stream zones in the Caseknife, Peak Creek, and Tunnel Hollow working areas must be vehicle exclusion zones where no harvest occurs.

⁹⁸ 40 C.F.R. § 1500.1(b) (2019)

⁹⁹ Forest Plan 3-152 (emphasis added).

¹⁰⁰ Id. (emphasis added).

¹⁰¹ Id. at 3-154.

¹⁰² See Final EA 6-7.

¹⁰³ RTC at 11.

¹⁰⁴ EA at 8; Draft Decision Notice at 6.

¹⁰⁵ JNF Forest Plan at 3-153 (Standard 9A1-001).

B. The District impermissibly failed to conduct old growth surveys.

We are very pleased that the District has committed to excluding from harvest any areas meeting the definition of old growth as outlined in the Forest Service publication Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forest in the Southern Region and the JNF Forest Plan.¹⁰⁶

Unfortunately, the District has left itself woefully ill-equipped to make good on that commitment, and has instead doubled down on a process that does not satisfy NEPA or the NFMA. For years, we have been warning the District that it was approaching this project backwards by deciding on a course of action without basic information to inform that decision, like proceeding without field surveys to understand the on-the-ground conditions in the project area.¹⁰⁷ The District's plan for designing around old growth presents a microcosm of its overall cart-before-the-horse approach to this Project. In the Response to Comments, the District explains:

The [District] is in the process of identifying old-growth within and adjacent to all units. A number of old growth communities within the project areas have been identified and mapped, and will be excluded from the potential sale units. We are committed to continuing this effort up through the marking and sale layout stage of the project. Any old growth communities identified will be protected. We welcome any additional information concerning existing old growth within the project area.¹⁰⁸

This is an admirable commitment and we trust that the District means it. However, the law requires more, and our past experience provides an illustration of why this commitment is not sufficient to protect old growth.

NEPA guarantees the public more than having to accept an agency saying "trust us." 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.¹⁰⁹ To that end, federal courts "have consistently held that public involvement lies at the center of NEPA's procedural requirements."¹¹⁰

¹⁰⁶ See Draft DN at 6; see also U.S. Forest Service, Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forest in the Southern Region: Report of the Region 8 Old-Growth Team (June 1997), available at <https://bit.ly/3pE3b1n>.

¹⁰⁷ See, e.g., Scoping Comments of VWC and SELC at 1-2 (June 24, 2019).

¹⁰⁸ RTC at 35.

¹⁰⁹ Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc., 462 U.S. 87, 97 (1983).

¹¹⁰ Ohio Valley Env'tl. Coal. v. U.S. Army Corps of Eng'rs, 674 F. Supp. 2d 783, 809 (S.D.W.V. 2009); see also id. (collecting cases).

It is not sufficient for the District to offer only its say-so that old growth will be avoided; the District must identify and disclose old growth during project planning to ensure that those areas are not logged. Old growth is a precious resource: old growth communities “are rare or largely absent” in Southeastern forests, perhaps occupying about one half of one percent (0.5%) of the total forest acreage.¹¹¹ For that reason, the Forest Service is making efforts to address the restoration of old growth, which is a “missing portion of the southern forest ecosystems.”¹¹² Old growth forest takes centuries to develop, so it is irreplaceable on a human time scale if it is replaceable at all.¹¹³ Given the rarity and importance of old growth forest in the Southern Appalachians and the little existing old growth forest that has been identified in the field on the District, the stakes are high and avoiding old growth is critical to the District reaching a defensible FONSI for this project.

In addition to NEPA, the JNF Forest Plan (and the NFMA by extension) also requires that old growth be accounted for during project planning.¹¹⁴ In particular, the JNF Forest Plan contemplates that old growth will be identified “during project-level decision-making.”¹¹⁵

Our past experience provides an illustration of why public input is crucial, and why it is not sufficient to conduct old growth surveys during implementation instead of during the NEPA process. During project planning for the Lower Cowpasture Restoration and Management Project on the James River and Warm Springs Ranger Districts, the Forest Service performed old growth surveys and disclosed them to the public. We reviewed the old growth tally sheets and flagged several areas of concern, which resulted in Forest Service staff revisiting stands and in some cases concluding that they qualified as old growth and should be excluded from harvest.¹¹⁶ In other words, absent public input, qualifying old growth would have been logged because the initial old growth survey results were wrong. We were able to forestall that outcome precisely because the old growth surveys were made available during project planning. But now, the District would deny the public – and itself – that opportunity.

We acknowledge that the District may think it onerous to conduct old growth surveys and provide supplemental NEPA documentation at this stage of project planning, but that is a problem the District created for itself. Since the early days of this project, we have been pressing the District to conduct old growth surveys and emphasizing that there is likely a significant

¹¹¹ USDA-Forest Service, Southern Region, Guidance for Conserving and Restoring Old-Growth Forest Communities in the Southern Region: Report of the Region 8 Old-Growth Team, 1 (June 1997) (“Region 8 guidance”).

¹¹² *Id.*

¹¹³ See Neighbors of Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, 1382 (9th Cir. 1998); accord Idaho Sporting Congress v. Alexander, 222 F.3d 562 (9th Cir. 2000).

¹¹⁴ See 16 U.S.C. 1604(i).

¹¹⁵ JNF Forest Plan at B-2.

¹¹⁶ For example, Sandy Springs Unit 6 (Compartment 1005/Stand 9) was not acknowledged as old growth and excluded from harvest until Russ McFarlane revisited the site.

amount of old growth within the project area.¹¹⁷ In addition to raising the issue repeatedly in conversations with District staff, we formally put the District on notice of the issue many times, including (1) in Freedom of Information Act requests on October 29, 2018, May 13, 2019, January 29, 2020, and October 23, 2020; (2) in our scoping comments; and (3) in our comments on the draft EA. For example, we commented on the draft EA that “absent [a] commitment [not to harvest old growth] and completion of the [old growth] surveys, the District cannot justify a finding of no significant impact.”¹¹⁸ The District apparently chose to ignore the issue. To date, we have received only six threadbare tally sheets that present a strikingly perfunctory approach. For example, the District apparently only surveyed two plots in the entire 137-acre Caseknife working area.¹¹⁹ And we have not received any old growth tally sheets for the Dismal or Gatewood Reservoir working areas. At this point, any further delay for the District is a self-inflicted injury.

IV. Request for Relief

For the foregoing reasons, Objectors respectfully request the Forest Service agree to the following:

- A. To drop all harvest units within Management Prescription 9A1 Source Water Protection Watersheds;
- B. To come to an agreement that is mutually satisfactory to Objectors and the Forest Service regarding:
 - 1. the completion of on-the-ground old growth surveys (conducted according to the GWJNF old growth survey protocol) for all logging units before any implementation begins;
 - 2. a reasonable opportunity for Objectors to (a) review the old growth surveys, including tally sheets; (b) raise and discuss concerns with District staff who routinely conduct such old growth surveys; and
 - 3. a reasonable opportunity for Forest staff to review old growth determinations (see section V.B.1. above) in light of Objectors’ concerns (see section V.B.2. above), and discuss findings with Objectors in an attempt to resolve concerns.
- C. To commit to contacting representatives from each Objector organization to inform them when any project areas are scheduled for implementation and inviting Objectors out in the field to show and discuss sale preparation activities such as unit layout, marking, stream management zones, temporary

¹¹⁷ See, e.g., Scoping Comments of VWC and SELC at 1-2 (June 24, 2019) and attached Bier report at 6, 18 (June 2019).

¹¹⁸ Draft EA Comments of TCC, VWC, Sierra Club – Virginia Chapter, and SELC at 33 (Feb. 26, 2020).

¹¹⁹ See Attachment, Old Growth Tally Sheet for Caseknife Working Area (July 25, 2018).

road, and skid road/ trails, before advertising the sale(s) for bids. These field visit(s) would occur before and will be separate from any “pre-bid” showing or “show me trip” for prospective bidders on the timber sale. The Forest Service would make the invitation(s) as far in advance of the expected sale advertisement date(s) as possible and the field visit(s) will be scheduled for mutually agreeable date(s) and time(s). The Forest Service would also notify each Objector representative when cutting units are open for harvest, and when logging operations are planned.

Respectfully submitted, and signed for Objectors,



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Attachments

V. List of Attachments

- June 2019 scoping comments, with Fieldwork Report of J. Bier report and Declaration of RM Muzika, Ph. D.
- February 2020 Draft EA comments, with Declaration and CV of RM Muzika, Ph. D.
- Potential Soil Erosion and Steep Slope Hazard maps
- May 2019 Old Growth tally sheets
- June 2018 Old Growth tally sheets
- E-mail from Va. Dept. of Forestry (Nov. 4, 2020)
- J. Bier Eastern Divide Insect and Disease Project Phase II, Jefferson National Forest, Second Summary of Fieldwork