FRIENDS of BLACKWATER
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September 7, 2021

Ms. Cynthia Sandeno, District Ranger
Monongahela National Forest, Marlinton-White Sulphur Ranger District
1627 Cemetery Road
Marlinton, WV 24954

Dear Ms. Sandeno:

Friends of Blackwater and the Center for Biological Diversity appreciate the opportunity to submit comments on the Preliminary Environmental Assessment for the "Upper Elk" project proposal.

I. INTRODUCTION

The **Center for Biological Diversity ("Center")** is a nonprofit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental and administrative law. The Center has over 1.6 million members and online activists dedicated to the protection and restoration of endangered species and wild places. The Center has worked for over twenty-five years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life.

Thank you for the opportunity to participate in commenting on this preliminary proposal. FOB and the Center support the NEPA process, which allows for thorough public involvement in reviewing and commenting on proposals. We strongly support the use of the best available science in decision-making, and providing, without prejudgment, a wide range of alternatives to consider.

Friends of Blackwater (FOB) is a non-profit conservation organization working to protect biodiversity in the Mid-Atlantic Appalachian Highlands. FOB has 5,624 active supporters across West Virginia and surrounding states, and works to protect the public lands used by our supporters. During the past 20 years, FOB has moved 4,650 acres of critical endangered species habitat into public ownership, at Blackwater Falls State Park and in the Cheat Canyon. FOB has funded research and advocacy for the endangered Indiana bat, Virginia big-eared bat, Cheat Snail, and the Cheat Mountain salamander; and has advocated for federal protections for the West Virginia northern flying squirrel (WVNFS), and the Indiana, northern long-eared, and little brown bats. Friends of Blackwater has a longstanding interest in the conservation of rare, threatened, and endangered species in the Monongahela National Forest, and has a track record of active engagement in Forest planning processes. FOB has a Memorandum of Understanding to work with the Monongahela National Forest on improving water quality, maintaining hiking and biking trails, and interpreting historic sites in Tucker County.

FOB commends the Forest Service for removing a proposed project-specific Forest Plan amendment for the WVNFS and avoiding documented capture sites for the WVNFS. The current Plan states that the Monongahela National Forest must treat the WVNFS as though it is a listed species and avoid taking actions in its habitat or near capture sites unless it part of a research project that will help managers stabilize or reverse the decline of the WVNFS population.

Friends of Blackwater wishes to correct the record on project collaboration (see page 83 of the Preliminary Environmental Assessment for the Upper Elk proposal). Friends of Blackwater did *not* attend a stakeholder meeting on January 7, 2020, and did *not* support any activities in the Gauley Mtn. IRA at that time -- or at any other time. FOB in fact strongly objects to logging in the IRA that is part of this project proposal.

Friends of Blackwater is especially concerned about the Preliminary EA containing violations of NEPA and the Roadless Rule (RACR), and its failure to apply current science to the West Virginia northern flying squirrel management, habitat, and the conditions needed for its survival. The Forest Service has also failed to apply the latest science to its climate change analysis in the Upper Elk Preliminary EA.

II. DISCUSSION

A. Lack of discussion of meaningful alternatives is a particular problem for this proposal

The National Environmental Policy Act (NEPA) provides an important framework for developing, evaluating, and selecting from a range of alternatives. Rather than utilizing NEPA to do this, the Upper Elk EA document fails to evaluate a "range of reasonable alternatives." The document leaves out any alternative to their proposed action alternative. This ignores the possible alternatives of lesser amounts and types of logging, and/or improving trails, improving wildlife openings and riparian habitat, reducing erosion and sediment from roads with improved drainage and culvert fixes, without logging and outside of the IRA. This alternative would improve the Forest for wildlife and outdoor recreation, and avoid adverse impacts from logging. It would also mitigate against climate change.

B. Inadequate justification for the proposal

The establishment of the baseline conditions of the affected environment is a requirement of the NEPA process. The EA makes the general assertion that older-stand forests do not provide adequate habitat for wildlife, and therefore that much more early successional habitat needs to be created within the project area. However, this claim is not supported by baseline data on wildlife.

The Forest Service must provide a baseline of flora and fauna in the project area. It needs to provide population estimates and trends for management indicator species, Regional Forester Sensitive Species, and threatened and endangered species and quantifiable population goals that could be used to evaluate whether or not the project is successful. Without this information, the public has no way of knowing whether the project will promote diverse, sustainable wildlife

populations in the Upper Elk project area. The Forest Service's failure to include Specialist Reports and previous surveys of wildlife, including aquatic species in the project area, renders the proposal fatally flawed, both procedurally and substantively.

C. Climate change issues must be analyzed using the latest available science

The Preliminary EA's discussion of climate change has substantial gaps and mistakes; to proceed further without addressing those gaps and mistakes would be improper. The Preliminary EA does not conduct any carbon accounting for the proposed activities, much less an accounting that is rooted in current science.

As we are now in a climate crisis caused by high levels of greenhouse gases, this logging proposal would indisputably add *more* such gases, by burning fossil fuels -- in order to cut down trees that are indisputably just reaching their peak gas-removal years. There is no discussion of the effect of the proposed logging on the actual ongoing, current carbon sequestration of the existing trees in the proposed project area – both taken alone and taken in combination and in cumulative impact with other similar projects.

Older-aged trees sequester far more carbon than new growth, and this disparity lasts for many decades. Moomaw WR, Masino SA, Faison EK. 2019. Intact forests in the United States: Proforestation mitigates climate change and serves the greatest good. Frontiers in Forests and Global Change 2: 27. Thanks to its older-growth trees, the MNF is currently a major carbon sink. The logging of older trees in this proposal would significantly reduce the annual carbon sequestration rate of the project area. *The Forest age-distribution goal that the EA relies upon would cut the carbon sequestration ability of the Mon Forest in half -- or more.* The EA must address the immediate and significant reduction in carbon sequestration for this proposal and its cumulative impact when combined with other potential logging projects on the MNF and across the federal government's vast landholdings.

D. The Forest Service Must Avoid Timbering in the Hardwood Stands in West Virginia Northern Flying Squirrel Habitat and Where It is Found.

The Preliminary EA document indicates that the Upper Elk project is focused on improving the resiliency of the project area, part of which includes improving habitat for the WVNFS. *See* Preliminary EA at 2. The project calls for "regeneration harvests" (both commercial and non-commercial) in numerous hardwood stands, and erroneously states these actions "will" benefit the WVNFS habitat.

However, the Forest Service has failed to meet its obligation to show how "research has demonstrated the beneficial effects of the proposed management" for WVNFS. See Forest Plan BO at 87, TE64. These regeneration harvests will do just the opposite, by fragmenting the WVNFS habitat. We are very concerned that regenerative harvests would occur within or adjacent to areas that can be identified as WVNFS habitat. Many of these stands may be mature/late-successional forests. Specifically, for trees 80 to 120 years or older, any amount of timbering would damage and even eliminate important elements of the uneven-aged structure that the WVNFS relies upon.

The EA also fails to discuss fully the impacts to the WVNFS habitat. WVNFS are strongly associated with late successional forest characteristics, including snags, downed wood, large diameter trees, moist climate, and high canopies.[1] Decreasing mid to late successional habitat in favor of an increase in early successional habitat, as is proposed, would decrease the habitat suitability for WVNFS, which is prohibited by Forest Plan Standard TE64. Major food sources for WVNFS, including fungi, lichen and mast, can be severely impacted by disturbance associated with active and extractive forest management.[2] "Unlike northern flying squirrels in the Pacific Northwest, which are primarily mycophagists (including lichens), the West Virginia northern flying squirrel has a more varied diet."[3] Fungi and lichen are more abundant and diverse in mature forests; younger forests are less able to provide several major components of WVNFS' diet.[4] WVNFS are considered an indicator species for mature and uncut forest,[5] partly because of their acute sensitivity to habitat fragmentation and disturbance.[6]

The squirrel uses a much broader habitat than just the portion of the forest with red spruce. They use northern hardwoods for travel corridors, especially very large old trees. They also consume red maple, stripped maple, beech, birch, serviceberry, oak, hemlock and blueberry, as well as large amounts of lichen found on older trees (Mitchell 2001Am. Midl. Nat.). Removing large older trees from the forest in WVNFS habitat will remove these food sources and corridors for travel.

Additionally, the forest floor will be impacted by machinery from logging. The EA doesn't explain how logging of the canopy trees changes the forest floor, drying it out and compacting the hyphal mat, which contains truffles and other underground fruiting bodies or mycorrhizal mushrooms, a food that the WVNFS depends on. The hyphal mat if disturbed takes 40 years to regrow. The EA document also fails to explain impacts to lichen in the trees above, which is another major WVNFS food source. Ultimately, the short-term impacts to the WVNFS habitat

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[1] Carey AB, Kershner J, Biswell B[L], Dominguez de Toledo L. 1999. Ecological Scale and Forest Development: Squirrels, Dietary Fungi, and Vascular Plants in Managed and Unmanaged Forests. The Wildlife Society. Wildlife Monographs no. 142; Smith, W.P. 2012. Sentinels of Ecological Processes: The Case of the Northern Flying Squirrel. Bioscience, 62(11): 950-961.
[2] Flaherty, E. A., M. Ben-David, and W. P. Smith. 2010a. Diet and food availability of the endemic Prince of Wales flying squirrel (*Glaucomys sabrinus griseifrons*) in Southeast Alaska: implications for dispersal across managed landscapes. Journal of Mammalogy 91:79-91.
[3] Mitchell, D. 2001. Spring and Fall Diet of the Endangered West Virginia Northern Flying Squirrel (Glaucomys sabrinus fuscus) Am. Midl. Nat. 146:439-443.
[4] Smith, WP. 2007. Ecology of Glaucomys sabrinus: Habitat, demography, and community relations. Journal of Mammology 84: 1044-1058; Selva, S.B. 1994. Lichen diversity and stand continuity in the northern hardwoods and spruce-fir forests of northern New England and western New Brunswick. Bryologist 97: 424-429.
[5] Holloway, GL; Smith, WP. 2011. A meta-analysis of forest age and structure effects on northern flying squirrel densities. Journal of Wildlife Management 75:668-674.
[6] Smith, W.P. 2012. Sentinels of Ecological Processes: The Case of the Northern Flying Squirrel. Bioscience, 62(11): 950-961.

from logging, lasting 40 or more years, would remove and degrade habitat for 8 generations of squirrels.

Furthermore, the project proposed should not allow for timbering year-round, with no precautions made for the critical breeding and nesting period of the WVNFS, from April to September. WVNFS young may not be mobile during this period. Disturbances taking place at this critical time, could result in reduced survival for young WVNFS. If adult WVNFS are forced to relocate, that process could be costly in terms of energy, especially since the lack of suitable forest cover would force them to rely on inefficient quadrupedal locomotion.[7] Relocation would also increase the risk of predation, due to the need to cross open areas, potentially move in daylight, and use inefficient quadrupedal locomotion. Timbering will simultaneously degrade the quality of the habitat and, by creating gaps in the forest, make it more difficult for WVNFS to reach more suitable habitat in the surrounding area. Habitat connectivity is crucial for long-term population viability of WVNFS, potentially more so than the habitat quality within a particular isolated area.[8] WVNFS avoid crossing gaps, and will choose to detour around a clear cut even when the detour distance is many times longer.[9] Studies suggest that removing even half of the trees from a given area has a negative impact on flying squirrels, so the clear-cutting and thinning proposed could have a severe impact.[10] Dense young forests also limit WVNFS' perceptual range, meaning that the early stages of regrowth will force WVNFS to spend more time searching for suitable forest habitat.[11]

The EA utterly fails to discuss the process by which the WVNFS habitat was evaluated, much less provide actual data and relevant scientific standards.[12] Additionally, the Biological

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[7] Flaherty, E. A., M. Ben-David, and W. P. Smith 2010. Quadrupedal locomotor performance in two species of arboreal squirrels: Predicting energy savings of gliding. Journal of Comparative Physiology B 180: 1067-1078.

[8] Loeb SC, Tainter FH, Cazares E. 2000. Habitat associations of hypogeous fungi in the Southern Appalachians: Implications for the endangered northern flying squirrel (Glaucomys sabrinus coloratus). American Midland Naturalist 144: 286-296; Smith, WP; Person, DK, Pyarea S. 2011. Source-sinks, metapopulations, and forest reserves: Conserving northern flying squirrels in the temperate rainforests of Southeast Alaska. Pages 399-422 in Liu J, Hull V, Morzillo AT, Wiens J, eds. Sources, Sinks, and Sustainability across Landscapes. Cambridge University Press.

[9] Smith, M.; Forbes, G.; Betts, M. 2013. Landscape configuration influences gap-crossing decisions of northern flying squirrel (glaucomys sabrinus). Biological Conservation, 168:176-183.

[10] Holloway, G.L.; Smith, W. P.; Halpern, C.B.; Gitzen, R.A.; Maguire, C.C.; West, S.D. 2012. Influence of forest structure and experimental green-tree retention on northern flying squirrel (Glaucomys sabrinus) abundance. Forest Ecology and Management. 285: 187-194.

[11] Flaherty EA, Smith WP, Pyare S, Ben-David M. 2008. Experimental trials of the northern flying squirrel (Glaucomys sabrinus) traversing managed rainforest landscapes: Perceptual range and fine-scale movements. Canadian Journal of Zoology 86: 1050-1058.

[12] For example, in the Forest Service's FONSI for the Spruce Mountain Grouse Management Area Project, the agency explained: "WVNFS habitat was determined using the Monongahela National Forest WVNFS suitable habitat layer, the DNR Red Spruce cover layer, the Menzel model, satellite aerial imagery, known capture locations, and on-the-ground habitat verification."

Evaluation concerning aquatic species, referenced in the EA, is not available to the public. These are two serious omissions. Accordingly, we urge the Forest Service to remove its plans to cut in those stands that are actually important to the WVNFS.

E. The Proposed Actions in the Gauley Mountain Inventoried Roadless Area Violate the Roadless Area Conservation Rule (RACR).

The EA fails to fully ensure the project's compliance with the Roadless Area Conservation Rule ("RACR" or "Roadless Rule") (36 C.F.R., part 294). The superficial analysis in the EA is especially problematic because the Forest Service has long recognized that tree cutting that "impact[s] a substantial part of [an] inventoried roadless area" is an action that normally requires an EIS. The Forest Service has not adequately explained why it believes this project is consistent with the Roadless Rule and falls outside of the normal rule requiring an EIS.

The RACR is binding law and overwrites any inconsistent provisions of a forest plan. RACR, 66 Fed. Reg. 3244, 3251 (2001); *Wyoming v. USDA*, 661 F.3d 1209 (10th Cir. 2011) (explaining that the RACR "leaves in place" forest plan provisions only "to the extent that they do not conflict with the Roadless Rule"). The RACR narrows the desired conditions and objectives applicable within roadless areas, such that any cutting, sale, or removal of timber must "maintain or improve" one of several enumerated roadless area characteristics and must be "needed" for a specific approved purpose. 36 C.F.R. sec. 294.13(b) (1).

To begin with, any tree cutting in a roadless area must maintain or improve one of the listed roadless area characteristics. The Preliminary EA suggests that the project is intended to maintain or improve the "[d]iversity of plant and animal communities" and "[h]abitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land." EA at 81 (citing 36 C.F.R. sec. 294.11). The Roadless Rule makes clear, however, that "diversity" is not a blank check to manipulate habitat for the benefit of common disturbance-adapted species, such as game species. Roadless areas are "relatively undisturbed landscapes that are important to biological diversity and the long-term survival of many at risk species." 66 Fed. Reg. at 3245. The Roadless Rule further explains that its diversity goals are furthered by the *prohibition* on timber harvest, not by the use of timber harvest. 66 Fed. Reg. at 3267. In other words, roadless areas were protected for the diversity that they already provide in a relatively undisturbed state, which contributes to landscape-scale diversity; they are not available to further a Forest's generic goals for habitat manipulation that could just as easily be met in other (non-roadless) portions of the project area.

Even if a project arguably would maintain or improve one of these roadless characteristics, that is not enough. The activity must also be "needed" for one of a few narrow purposes. 36 C.F.R. sec. 294.13. Improvement of threatened, endangered, proposed, or sensitive species habitat appears again on this list, and its duplication clarifies a crucial point. Not only must the agency intend that the project maintain or improve such habitat; it must also show, by reference to the best available scientific information, that the action is actually *needed* to improve the habitat. 36

USDA Forest Service, Decision Notice and Finding of No Significant Impact for the Spruce Mountain Grouse Management Area Project at 6.

CFR 294.13(b). This is a much higher bar than the Forest Service is accustomed to in its routine projects, where optimistic predictions about responses to habitat manipulation often prove false in hindsight. *See Sierra Club v. Eubanks*, 335 F. Supp. 2d 1070, 1081 (E.D. Cal. 2004) (halting harvest in a roadless area where the Forest Service could not demonstrate that its proposal would actually achieve the intended outcome of reducing wildfire risk).

The Forest Service cites 36 C.F.R. sec. 294.13, but badly misquotes it. EA at 79. First, the EA omits the requirement that the action be "needed" to further one of the allowable purposes. Second, the EA states incorrectly that tree cutting may be authorized "[t]o maintain or restore the characteristics of ecosystem composition *or* structure." *Id.* (emphasis added). The Roadless Rule, however, provides that tree cutting must be needed to "maintain or restore the characteristics of ecosystem composition *and* structure." 36 C.F.R. sec. 294.13 (emphasis added). This is a crucial difference, because structural manipulation through timber harvest often degrades ecosystem composition, for example by favoring uncharacteristic species or introducing invasive species.

The RACR imposes two further requirements even on timber cutting that can meet the other requirements: it must involve only "generally small diameter" timber and it must be "infrequent." 26 CFR 294(b) (1). The harvest allowed here—up to 24"—is not limited to generally small diameter trees. The largest size class used by the Monongahela National Forest is "sawtimber." Plan FEIS at 3-331. The *maximum* diameter guideline for harvesting sawtimber ranges from 16" to 28" depending on forest type and site index. Plan at III-7 to III-8. Furthermore, while Region 9 has not adopted operational definitions for old growth forests, Region 8 has done so for forest types similar to those found on the Monongahela. For example, large trees in northern hardwood forests are defined as greater than 14" in diameter, and large trees in montane spruce-fir forest are defined as greater than 20" in diameter.[13]

Although there is no hard-and-fast rule for a maximum diameter in every forest type, by allowing harvest of trees up to 24" in diameter this project crosses the line. The Roadless Rule clearly explains that the intent of its exception for small diameter timber was to allow mid-story treatments, *see* 66 Fed. Reg. at 3257 (discussing "ladder" fuels), not to promote canopy manipulation. Furthermore, removing canopy trees would actually decrease the average size of remaining trees in the treatment area, which cannot qualify as removal of "generally small diameter" trees. Fundamentally, the Forest Service has failed even to *mention* the "small diameter" limitation or to make the required "determination[]" about what constitutes small diameter timber for this project. See 66 Fed. Reg. at 3257.

Finally, the Forest Service has failed to provide any rationale why the proposed tree cutting will be "infrequent." The rationales offered for this project are not self-limiting, and if allowed here could also be applied on much larger acreages. The Forest Service must differentiate the purpose and need for actions in roadless areas from its general objectives in a project area. It may not create a loophole that is broad enough to extend beyond "infrequent" intervention. Indeed, setting such a precedent would be significant enough to require analysis in an EIS. *See* 40 C.F.R. 1508.27 (1978).

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[13] See USFS, Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region (1997) at 24, Table 2.

a. Red Spruce Release

One exemption used by the Forest Service to log in the Gauley IRA is based on improving habitat for the WVNFS by releasing red spruce from the understory and in the process cutting hardwoods, which is unsupported by scientific evidence. The WVNFS as stated above is dependent on the hardwood scheduled for cutting: See Upper Elk Preliminary EA at 81: "Noncommercial thinning would be used to restore approximately 2,494 acres of the red spruce ecosystem in the IRA which would result in improved wildlife habitat for the West Virginia Northern Flying Squirrel and other sensitive species. Northern hardwood species, such as maple, beech, birch, black cherry, and magnolia 10-24 inches in diameter would be cut to release red spruce and increase the recruitment of red spruce in the mid-story and overstory."These are the very trees the squirrel uses for food: tree buds of beech, red maple, yellow birch, red pine, hemlock, & beech nuts, shelter: yellow birch bark for nest lining and all tall trees for gliding across the forest using their patagium (furry membrane). These trees also protect and support the hyphal mat in the soil below which produces the fungi the squirrel eat. To reiterate the WVNFS uses a mixed habitat of hardwoods and conifers at high elevation and its ability to travel, shelter, feed and find mates will be hampered by the proposed red spruce restoration in the IRA which reduces the hardwood component, eliminates taller trees and disturbs the forest floor and hyphal mat. (See scientific support in above section). The Forest Service simply cannot substantiate that this treatment is "needed" to benefit the WVNFS.

b. Early Successional Habitat Creation (Wildlife Openings and Cutback Borders)

The RACR contemplates maintenance of "natural" openings for wildlife, such as natural meadows with woody encroachment. It does not contemplate creation of artificial openings, which indicates that management is intended to be generally passive. 66 Fed. Reg. at 3257. The Forest Service here is creating new wildlife openings. It is also cutting larger trees to enlarge wildlife openings in the IRA which has no benefit for listed or sensitive species and is not "natural." And the Forest Service is proposing "cutback borders" or feathering. All of these proposed actions would allow cutting trees up to 24" in diameter, and the stated purpose for all of them is to create "early successional habitat." EA at 80. Artificially manipulating forest structure and removing canopy trees for the benefit of early successional species and generalists, like game wildlife, *see* EA at 83, is not within the scope of the exception for infrequent and generally small diameter timber harvests.

As noted above, restoration in IRAs must be needed to maintain or restore both composition and structure. There has been no case made here that the creation of early successional habitat (ESH) in wildlife openings and feathering will benefit species composition. Additionally, the rationale in this project would open the doors to frequent harvest. Nothing about the early succession habitat treatments (ESH) would be self-limiting. ESH is a goal that the Forest Service relies on in every project, across entire project areas. To assume ESH objectives can or must be pursued in IRAs is to create an exception that devours the rule. This precedent would allow many more acres to be cut for the same reasons, ignoring the "infrequent" limitation.

In addition, "feathering" will not improve the roadless characteristics of this roadless area and goes against the standards for the 6.2 management prescription which the IRA is part of (see chart on page 5 under desired conditions).

c. Road Decommissioning

In addition to these management prescription limitations the Forest Service proposes to use heavy equipment such as backhoes and excavators and logging to cut 28 miles of trees to cover up old roads. Also "About 3.7 miles (or 13 acres) of Forest Service system roads are proposed for decommissioning or obliteration in the IRA with approximately 10 trees/mile proposed for cutting where they occur in the road surface. Potential treatments to the road surface include decompacting the route surface …" (p 81 Upper Elk EA). This will also require heavy equipment. Finally they will cut 2,500 additional trees along 25.5 miles of streams and flood plains (618 acres) to add woody debris to these streams. These trees are not small diameter and there is no time limit on this project.

We believe the end result of all these proposed actions will be to undermine this area's roadless characteristics, which the EA fails to disclose. Indeed, this is precisely why an EIS is required for projects, like this one, that would affect a substantial part of an IRA. 36 C.F.R. sec. 220.5(a)(2)(i).

Conclusion: Because the logging on the IRA is not limited to small diameter trees or time limited; because much of it is for the purpose of structural manipulation that will not improve its natural appearance, roadless characteristics, or species composition; because it is not needed, based on best available science, to improve habitat for an endangered, threatened, rare or sensitive species, it is not permissible under the timbering exemptions to the Roadless Rule. All logging and habitat manipulation in the Gauley Mountain IRA should be dropped and the logging in WVNFS habitat should also be dropped.

III. CONCLUSION

Thank you for the opportunity to comment on the Upper Elk Preliminary EA Please make these comments part of the official record for this project. Also, please send us all future notices for this proposed project.

Sincerely,

Judith S Rodd
Director, Friends of Blackwater

Jason Totoiu
Senior Attorney
Center for Biological Diversity