



November 6, 2017

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Sent Via Email

Re: Response to Scoping Notice for North Shenandoah Mountain Restoration and Management Project Dated September 15, 2017

Dear Ranger Yonce:

Board of Directors:

I am submitting this letter on behalf of Wild Virginia. Thank you and other members of the staff for your efforts to involve the public in this project and for considering these comments.

Bette Dzamba

Howard Evergreen

Katie Keller

Jennifer Lewis

Laurie Miller

Ernie Reed

David Sellers

Deirdre Skogen

Elizabeth Williams

Reiko Dogu

Aubrey O'Hara

As referenced, these comments respond to the scoping notice ("Notice") for the North Shenandoah Mountain Restoration and Management Project ("NSM Project"). The Notice describes the proposal as "a landscape scale restoration and management project aimed at improving watershed conditions, restoring habitats for a diversity of terrestrial and aquatic species, increasing resilience in ecological systems, and providing forest products to local economies." Notice at 1. We believe that maintaining and improving the resilience of the ecosystems that may be affected by project activities must be the greatest priority of the project, because all other resources and legitimate uses of the project area and adjoining environments can be served adequately and properly only if the natural system components are preserved and restored as fully as possible.

We have some general concerns about the adequacy of the current process and approach to best understand and promote the resilience of project-area ecosystems in the long-term. We are concerned that provisions of the National Environmental Policy Act ("NEPA") may be violated unless significant changes are made. Further, we assert that the analysis of conformance with the Land and Resource Management Plan ("Forest Plan") for the George Washington National Forest ("GWNF") must more completely describe certain forest-wide goals and objectives and balance those Forest Plan aims against management area-specific goals and objectives in a realistic way. We also have concerns about the need for specific assessments of potential herbicide impacts and about water quality impact analyses in general.

We would also like to endorse comments provided by Chris Bolgiano in response to this scoping notice and incorporate those comments by-reference into Wild Virginia's submittal. We believe Ms. Bolgiano's comments bring important analyses based on recent and best scientific evidence into the discussion. Some of these points challenge assumptions upon

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which the Forest Service's proposed actions are based and must be fully discussed in the Environmental Assessment ("EA").

As an initial procedural matter, we strongly encourage the Forest Service to publish a draft EA, accept comments on that document, and issue a final EA at the same time as the draft Decision Notice. In this way, the decision maker will have a much more complete body of information available for consideration in the draft Decision.

The Notice now available for public comment does not and likely could not include much vital information that will be gathered by the Forest Service in the coming months. For example, the Notice states: "Over the next six to nine months, site specific surveys will occur in and around stands which are identified for treatment. Data collected will be used to determine the extent of old growth, stand structure, species composition, age, forest health, growth rates, presence of invasive plants and site productivity." Notice at 6. Of course, data gathered for the draft EA will be of great interest to the public and our input can be most effective if we can comment on them before the draft Decision is issued. As you know, while comments on the draft EA may be submitted and incorporated after the draft Decision is issued, the only administrative option available to citizens to ensure draft EA comments are properly addressed is a formal Objection. The likelihood that parties would deem such an action necessary to defend their interests and positions will be greatly reduced if the draft Decision is delayed until the final EA issues.

Segregation of Recreation from Other Activities is Improper

We believe the exclusion of a fuller analysis of recreation-related management options from this process is improper under NEPA. At worst, this approach may be an instance of "segmentation" and could violate NEPA, as interpreted through application in court decisions. At the least, this approach will result in one of two possible outcomes: 1) the cumulative impacts analysis required in this process will be shortchanged, because predictable impacts of current and future recreation management will be incomplete or 2) an adequate cumulative impacts analysis that properly addresses recreation issues in combination with activities included in the scoping notice will duplicate efforts in the separate processes.

The stated purposes for the NSM project, as quoted above, can in no case be achieved unless the Forest Service considers all known influences on the ecosystems in aggregate. For instance, the likelihood of success in achieving the goal of "increasing resilience in ecological systems" cannot be properly assessed based on a constricted view of the possible actions to be taken on the landscape. One class of activities may well contribute to meeting a project goal while another type of activity could nullify that progress. This concept is discussed further below in the section discussing conformance with the Forest Plan.

A test used by courts to judge whether a NEPA review is improperly segmented, includes consideration of the following factors: whether the individual project "(1) has logical termini; (2) has substantial independent utility; (3) does not foreclose the opportunity to consider alternatives, and (4) does not irretrievably commit federal funds for closely related projects." *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294, 298 (D.C.Cir.1987) (internal citations omitted). We believe several of these factors are at play here. For example, timbering or prescribed burns planned by the Forest Service through this project review will certainly restrict the range of alternatives possible for recreation in those same areas. Also, given that the same project area examined here would be addressed through NEPA planning for recreation projected to occur in an overlapping period or soon thereafter, the set of activities outlined in the scoping Notice do not have "logical termini" that justify separate EAs.

Even if the two processes are not deemed to be an improper segmentation under NEPA, the requirement that cumulative impacts be adequately assessed in any EA review argues strongly for the incorporation of recreation issues into this project EA. Of course, recreation-related management actions will directly affect some of the same environmental features that the Forest Service proposes to address in relation to vegetation management through this project.

The Slate Lick area is a prime example of a place where decisions regarding recreation are inextricably linked to all other activities. Water quality impacts in the same watershed, which includes sensitive species and important habitats, will be affected by choices made for management of recreation uses in ways that will have combined or even synergistic effects on the waterbodies and the species that depend on them. To look at all of the factors in sufficient detail in this EA will require a much fuller discussion of both sanctioned and unsanctioned recreational facilities and use areas than seems to be anticipated by the Notice. However, it would seem that if the Forest Service is to do a complete and adequate cumulative impacts analysis, the Service may just as well explicitly incorporate recreation into this project. Otherwise, portions of the analysis will have to be factored into both projects, if done separately, which appears to us to be wasteful of limited Forest Service resources and of the public's time and efforts.

Conformance with the Forest Plan

We believe the emphasis in the scoping document on efforts intended to fulfill certain Forest Plan requirements (e.g. establishment of specified mixed-age stands) fails to acknowledge and account for the fact that some actions may advance certain Forest Plan goals and objectives while, at the same time, reversing or stalling progress on others. Therefore, we believe the EA's discussion of ways the project interacts with the Forest Plan must be much more inclusive than that the Notice hints at.

All projects and activities authorized by the Forest Service must be consistent with the Forest Plan. 16 U.S.C. 1604(i). If a proposed project or activity is not consistent with the Forest Plan, the Responsible Official has several options: 1) to modify the proposal so that the project or activity is consistent, 2) to reject the proposal, or 3) to amend the Forest Plan contemporaneously with the approval of the project or activity so that the project or activity is consistent with the Forest Plan, as amended. The amendment may be applicable only to the project or activity. 36 CFR 219.10(f).

Consistency with the Forest Plan is measured by the degree to which management activities help achieve the Desired Conditions (aspirational goals) through actions that are consistent with the Plan's Design Criteria. The Forest Service is legally obligated to attempt to meet all Design Criteria, both those that are specific to a management prescription area and those that apply forest-wide. However, in this Notice as in other projects, the review seems to give higher priority to some Design Criteria than to others. If such prioritization is to occur, and it surely must in many cases, we assert that the choice of priorities must be explicitly discussed in the EA and the balance of interests and values disclosed and used as a guide in making the final Decision.

Of course, it is understood that achievement of every Desired Condition by implementation of the Design Criteria cannot likely be reached in the timeframe set for individual projects. This is simply a reality that is created by two factors. First, the effectiveness of human attempts to affect ecosystem components and functioning is always questionable and, even when the desired results can be achieved, natural processes take time. Second, persistent and predictable shortages of Forest Service resources mean that, even with the best intentions, the Service will have to allocate those resources in ways that advance some goals over others.

These factors, which dictate that some activities contemplated for this project will move the Forest toward achievement of Design Criteria while, at the same time, impairing or reversing progress in achieving others. For instance, construction of new roads and maintenance of existing roads, timber harvesting activities, and maintenance or creation of recreational areas will sometimes foster the establishment of invasive species in areas where they are not currently found. Therefore, for every such projected achievement in advancing conformance with the Forest Plan some unwanted changes may occur.

The Forest Service must acknowledge that any actions it plans for this project area are certain to create some changes that have divergent impacts on Forest Plan conformance. Wherever these conflicting activities are identified, the choice that best promotes species diversity and overall ecosystem health in the long term should be chosen.

Analysis of Water Quality Impacts from Project Activities

A vital step in the assessment of project impacts is the estimate of sediment loadings that will be discharged to streams in watersheds affected by the project. Changes to the quantity, frequency, and intensity of runoff events must also be assessed. We have noted in other projects that calculations focus primarily on modeling results for annual changes and trends. While this modeling is a standard exercise and has value for understanding the effects from land-disturbing activities on a broad basis, it is insufficient to understand the impacts to streams on shorter timeframes. Storm events that carry sediments into streams are, of course, episodes occurring at variable frequencies and occasions throughout each year. The effects on streams receiving those discharges will vary depending on the magnitude of each storm and will depend on both individual loadings and the concentrations in the waterbody. Cumulative loadings over time will also affect the ways sediments accumulate, move, and affect the habitat in streams but it is undisputed that individual storms can have very significant and sometimes very damaging effects in streams.

The EA must address Virginia water quality standards (“WQS”) and the measures that will ensure conformance with all sections of the WQS. It is important to note that the WQS regulations mandate upholding all designated and existing uses, which include both aquatic life support and recreation (which encompasses aesthetic enjoyment) for every waterbody in Virginia and at all times. No provisions in the WQS allow for temporary impairment of uses or violation of criteria. Narrative criteria in the WQS prohibit conditions that are “inimical or harmful to human, animal, plant, or aquatic life” and conditions in streams attributable to discharges to include “turbidity” and other characteristics. Significant sediments discharges during individual storm events can certainly violate either or both of these WQS requirements. Therefore, the analysis of pollutant discharges due to management activities must look at both short- and long-term loadings and concentrations.

Some may assert that, as a practical matter, denial of either type of use (biological or human) for only a short period is not of importance, if those uses are restored later. We strongly disagree and the regulations support our position. For aquatic life, significant changes to pollutant concentrations in the water column and to stream bottom habitat affected by settling of sediments cannot be viewed in isolation from other impacts, including natural ones. Natural streams have the capacity to respond to and recover from natural events such as floods and droughts but, if the streams are damaged by pollution, even for relatively short periods, that resilience is lessened and recovery may be slower or may not occur. Also, people who use natural areas for recreation respond to the conditions they find on individual occasions. If a person finds a stream in an area of the Forest on one visit that is brown or filled with sediment or has unnatural deposits covering the normal bottom habitats, that person’s ability

to fish or enjoy the area is impaired or eliminated on that day. Further, the person may well not re-visit the area due to that one bad experience.

If any of the above-described conditions are created by a Forest Service project, then WQS will be violated and the Forest Service's own goals and standards will be violated. Therefore, the analysis in the EA must specifically address short-term impacts and any decisions made for any of the watersheds potentially affected by this project must ensure that these problems will not occur. We recognize that results of monitoring conducted by the Forest Service in various situations indicates that in most cases no persistent damages to benthic macroinvertebrate communities or fish populations are found. Also, work by the Virginia Department of Forestry ("DOF"), where stream sampling occurred before, during, and after storm events in logging areas, is one piece of evidence that bears on our concerns about the shorter-term concentrations and loadings contributed to streams and the impacts on aquatic life. However, these findings do not fully alleviate our concerns.

The Virginia DOF has stated that its "monitoring showed that, when forestry BMP's are properly implemented, timber harvests can be accomplished without a large or persistent increase in sediment or stream water temperatures, or a shift in macroinvertebrate species composition." It is not clear from that finding that the requirements in the WQS, as we've described above, were actually met in those cases. What constitutes, in either the DOF's judgement or the Forest Service's, "large" increases in sediment in-stream and how long did they persist? And, most importantly, would those conditions have fully supported both designated and existing uses in both the short term and long term? And in "periodically" sampling macroinvertebrates, did the DOF's conclusion that shifts in benthic species composition did not occur apply only to longer time periods such as those of a year or more, or did they actually look at the more immediate impacts?

To ensure that sediment pollution and hydrologic flow pattern changes from this project do not violate Virginia water quality standards, the Forest Service must do the following:

1. Isolate and describe for the public the impacts of sediments that can be predicted for each of the watersheds affected from individual storms of various magnitudes, including the largest ones that may occur during the project. This assessment must include both concentrations and loadings of pollutants in the waterbodies.
2. Conduct its own water quality monitoring on enough streams in the area such that those selected streams are representative of the range of watershed conditions and the various activities that might impact water quality. Sampling around individual and sizeable storm events prior to, during, and after project activities is needed.
3. Conduct benthic macroinvertebrate monitoring on a representative sample of stream segments in the areas to be affected by project activities at frequencies that would reveal baseline conditions and both short-term and long-term impacts.
4. Conduct both water quality and benthic monitoring on nearby watersheds with similar characteristics, outside the areas to be affected by the project, with the same frequencies and timing as those described in 2. and 3.
5. Continue to monitor conditions in-stream and of runoff over longer periods to assess changes as conditions in the project area evolve over time. Forest stands will grow and change in ways that will presumably restore previous runoff and erosion characteristics to some extent. On the other hand, roads and trails will degrade, without adequate maintenance and/or abandonment. Given the Forest Service's acknowledged backlog of such maintenance needs it seems invalid to assume that the maintenance and restoration of these features can or will be continued beyond the life of this project and this fact should

weigh heavily against the construction of new roads and for the abandonment and restoration of some roads and trails.

Ongoing and projected treatments for non-native species and possibly on timber cut areas may include the use of herbicides. The NEPA analysis of potential impacts from these activities must incorporate the most up-to-date scientific knowledge. These issues have been addressed on a forest-wide basis in the *Environmental Assessment of Forest-Wide Non-Native Invasive Plant Control (Herbicide EA) George Washington and Jefferson National Forests* (2010). In this EA, the project analysis can be “tiered to” that broader review. Those broader findings and conclusions must be applied and supplemented by project-specific analysis here. The information in that 2010 EA must be supplemented with more recent evidence where it exists and is pertinent. The project-specific analysis needs to account for conditions that are present on the areas where practices will be applied with an appropriate degree of detail to protect groundwater, surface waters, humans, and wild non-target species. In that regard, we have the following comments and questions:

- Once these chemicals enter the environment, their movements and the likelihood of reaching state waters depend heavily on the degree to which they are bound to soil particles and the mechanisms by which they may be re-solubilized after binding has occurred. To understand the risks for the project area, there must be an analysis of the ways any herbicides considered for use and the particular formulations of herbicides and adjuvants will act when they come in contact with the soils that are present where they will be applied.
- The EA should discuss in appropriate detail the amounts and frequencies of herbicide use proposed and consider whether these uses are or may be accompanied by uses in areas outside the project area but within the same watersheds such that those treated areas could contribute to the same streams as those possibly impacted by this project.
- If more than one herbicide will be available for use, the EA must describe the factors and reasoning that will guide choices between these options.
- Glyphosate, which is often used on Forest tracts, is described as “non-selective,” meaning it may affect non-target species. Shouldn’t this factor cause glyphosate to be disfavored in any case where the other choices are predicted to be effective and, if not, why not?
- While the U.S. EPA has not designated glyphosate as a carcinogen, this failure must not be dispositive of findings in the EA. The most recent scientific literature contains evidence that glyphosate may cause cancer and authoritative bodies have made decisions reflecting those findings. It is particularly notable that the International Agency for Research on Cancer has deemed glyphosate “probably carcinogenic to humans,” based on research reports that the herbicide was associated with increased occurrence of non-Hodgkin lymphoma and other types of cancer. Given conflicting evidence, we assert that the Forest Service should take a precautionary approach and remove glyphosate from the list of possible herbicides for use in this project.
- The EA must include the most up-to-date information about the potential health impacts of all chemicals that may be used in the project areas and should not rely only on the references used in the Forest-Wide EA. Significant new studies exist and must be incorporated into this review.
- Wherever the Forest Service proposes to use herbicides it should commit to doing targeted monitoring around a sampling of application sites and in state waters as part of this project. Testing should account for differences in application methods and the nature of soils and ground cover. Samples of soils at various distances from application sites and other water should be collected. Sites with sensitive species and water supplies downstream should be included.

Mary Yonce
November 6, 2017

Miscellaneous Issues of Concern

- The EA must discuss ways in which the management of the project area may help “buffer” the ecosystems and resource values from ongoing climate change. This is particularly important because some habitats in this area are at the southern margins of the species’ ranges.
- The advisability of maintaining all human-made waterbody impoundments must be examined in the EA.
- Presumptions about any positive or negative impacts on the local economy from harvesting wood products must be questioned. Are there known or likely markets for the wood products? How does the potential use of these wood products fit into the local and regional market picture? How might other economic values (recreation, etc.) be affected by proposed actions and how do any such costs and benefits balance against timber uses?
- Monitoring of various factors should include collection of baseline data which should be available in the draft EA. Monitoring of the same features and parameters should be maintained throughout the project period and for a specified period after completion.
- We previously suggested that the project area be defined in relation to sub-watersheds rather than arbitrary, human-created features, such as roads. We renew that suggestion.
- We recommend that opportunities be sought to coordinate any invasive species management activities with ongoing or planned actions on privately-owned lands adjacent to the project area.
- Likely problems with elimination of stands of hemlock due to the woolly adelgid should be discussed and alternatives that may lessen impacts on waterbodies should be investigated and planned where possible.

Thank you for considering these issues and we look forward to continued participation in this project review.

Sincerely,

_____/s/_____
David Sligh

Conservation Director

cc: Karen Overcash, GW&JNF