



June 15, 2018

Brett Glymph
Executive Director
Virginia Outdoors Foundation
39 Garret Street, Suite 200
Warrenton, VA 20186

Carlton Owen
President and CEO
U.S. Endowment for Forestry and Communities
908 E. North Street
Greenville, SC 29601

Dear Ms. Glymph and Mr. Owen,

Attached, we offer recommendations to your agencies with regard to the forest fragmentation mitigation funds you will be administering as a result of the Commonwealth of Virginia's agreements with the developers of the Atlantic Coast Pipeline and Mountain Valley Pipeline.

The Nature Conservancy has a long-standing interest in mitigation policy in the United States. Drawing on over four decades of experience in mitigation program design and project delivery, we have developed a set of mitigation principles that seek to ensure that projects meet high and consistent standards for mitigation and maximize conservation outcomes. Our recommendations are based on those principles.

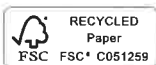
We hope you find the recommendations helpful as you develop these new programs. Please do not hesitate to contact me or to contact Nikki Rovner if we can provide additional assistance.

Sincerely,

A handwritten signature in black ink that reads "Locke W. Ogens".

Locke Ogens
State Director

Cc: The Honorable Matthew Strickler, Secretary of Natural Resources
The Honorable Bettina Ring, Secretary of Agriculture and Forestry
Nikki Rovner, Associate State Director for The Nature Conservancy Virginia Chapter



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TNC Recommendations on Criteria and Process for Administration of Virginia Pipeline Forest Mitigation Funds

The Nature Conservancy commends the Commonwealth for recognizing that one of the most significant unregulated impacts of the two proposed interstate natural gas pipelines is fragmentation of intact forests. We also commend the Commonwealth for working with the pipeline developers to compensate for those impacts through forest conservation activities. Below are the Conservancy's initial recommendations for how forest fragmentation mitigation funds should be administered and spent. Our recommendations focus on the funds to be managed by the Virginia Outdoors Foundation (VOF) and U.S. Endowment for Forestry and Communities (U.S. Endowment). We are not commenting on the funds that will be administered by the "water quality mitigation partners" identified in the Memoranda of Agreement with the pipeline developers, except to the extent that we are recommending that all of the mitigation programs should be coordinated by the Commonwealth.

Principles for Mitigation Projects:

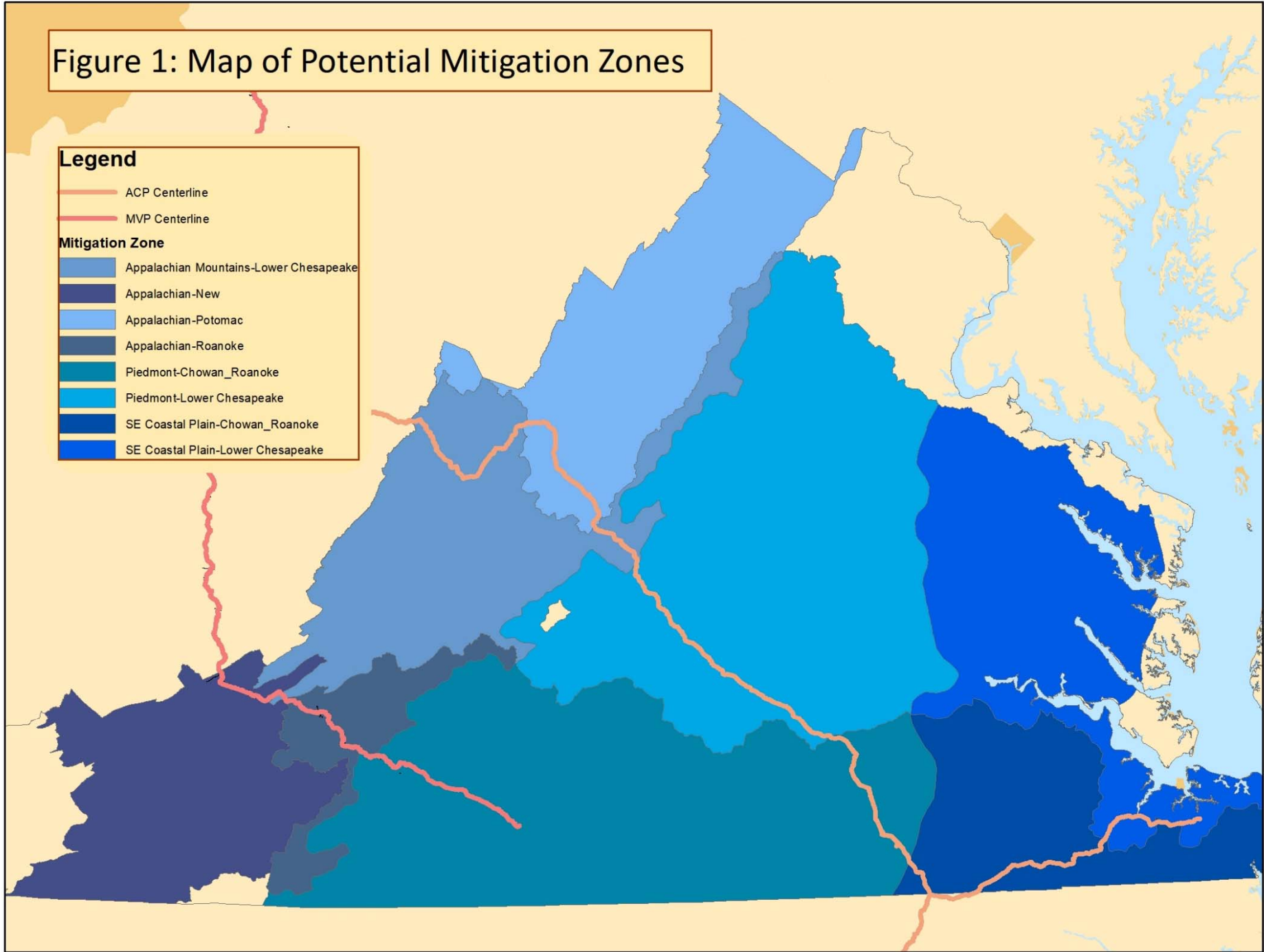
The Nature Conservancy has developed a set of [Principles for Applying the Mitigation Hierarchy](#). The principles apply to all three tiers of the mitigation hierarchy: avoidance of impacts, minimization of impacts and offsetting unavoidable impacts. The forest mitigation programs being developed by VOF and the U.S. Endowment are implementing the third leg of the mitigation hierarchy: offsetting unavoidable impacts. Our recommendations below draw on those principles.

- 1) Mitigation Policy Goal. In general, the goal for mitigation programs should be the achievement of no net loss in functions and values to the affected resources. We encourage the Commonwealth to articulate a goal to provide a benchmark for evaluating the success of the program that will optimize mitigation expenditures to obtain the greatest possible conservation outcome per dollar spent.
- 2) Additionality. Offsets should provide a new contribution to conservation, additional to what would have occurred without the offset. In determining additionality, fund managers should consider whether a proposed project is eligible and competitive for another existing source of conservation funding.
- 3) Equivalence. Offsets should provide ecologically equivalent values as those lost to project impacts. Ecological values of intact forests include the provisioning of habitat and water quantity and the protection of water quality. To ensure equivalency, we recommend that projects be distributed among "mitigation zones" represented by the intersection of terrestrial ecoregions and 6-digit hydrologic units (see Figure 1). Because the primary impact from these projects is the fragmentation of large intact forest cores, avoided conversion activities should focus on lands within and adjacent to existing forest cores. Scenic vistas are another value provided by intact forests. The Letter of Agreement with VOF specifically calls out viewshed impacts as a criterion that may be applied, and we urge VOF to give appropriate weight to this

Figure 1: Map of Potential Mitigation Zones

Legend

- ACP Centerline
- MVP Centerline
- Mitigation Zone**
- Appalachian Mountains-Lower Chesapeake
- Appalachian-New
- Appalachian-Potomac
- Appalachian-Roanoke
- Piedmont-Chowan_Roanoke
- Piedmont-Lower Chesapeake
- SE Coastal Plain-Chowan_Roanoke
- SE Coastal Plain-Lower Chesapeake



criterion. While the other optional criteria listed in the Letter of Agreement are desirable attributes of conservation projects, they do not necessarily serve the goal of equivalence, and should therefore should only be used as secondary considerations.

- 4) Location. Offset benefits should accrue in the project-affected landscape. To ensure that accrued benefits are proportionate to impacts, funding should be distributed roughly according to the percentage of impacts that occur within each mitigation zone (see Figure 1). In consideration of affected communities, we further recommend that preference be given to projects located in counties transected by the pipelines.
- 5) Durability. Durability relates to the expectation that the intended ecological functions of the compensatory mitigation investment will endure over time and at least as long as the direct, indirect, and cumulative effects of the impacts for which the compensation is being carried out. One common way to ensure that offsets will be durable is to provide funding for the long-term management of sites, such as easement monitoring and maintenance of sites to ensure that they continue to provide intact forest functions. Although the Letters of Agreement with VOF and the Endowment do not appear to contemplate using the funds for long-term management, we strongly recommend that selected projects are able to ensure the availability of adequate monies for project protection and management.
- 6) Temporal considerations. Ideally, offset projects are implemented in advance or concurrent with project impacts. Therefore, we are glad to see that the Commonwealth is moving ahead with establishing the programs so that projects selection can begin soon. At the same time, it is important to ensure that the new programs are deliberately constructed to achieve the best mitigation outcomes possible. We therefore caution against rushing the process of designing the programs.

Criteria for Avoided Deforestation Projects

Avoided deforestation projects should be evaluated based on the following attributes:

- Mitigation zone in which the project is located
- County within which the project is located
- Extent to which the project would enhance the ecological integrity score of a forest core
- Extent to which the project would protect high value scenic viewsheds
- Distribution of project within forest type (i.e. the same as those impacted)
- Size and intactness of forest within project
- The ability of the proposing entity to implement and enforce a protective instrument that will ensure that new fragmenting features are prohibited in the future, except to the extent needed for forest management.

Criteria for Afforestation and Forest Enhancement

The afforestation (restoration) and forest enhancement activities to be undertaken by the Endowment are particularly important because, unlike preservation of existing forested resources (avoided deforestation), restoration and enhancement more effectively advance the no net loss goal. Project proposals should be evaluated based on the same attributes outlined above for avoided deforestation projects, and must also achieve meaningful restoration and enhancement. Examples of appropriate restoration and enhancement activities include:

- Tree planting on currently unforested lands, e.g. marginal agricultural lands
- Tree planting of under-represented forest species including American chestnut, red spruce, longleaf pine and bald cypress
- Controlled burning to restore and maintain fire regimes
- Timber stand improvement activities to create a healthy native forest composition and structure
- Remediation of forest fragmentation, for example road decommissioning

These activities can take place on lands that are already protected (land that is owned by a conservation agency or NGO, or land under a conservation easement) or land that is protected as part of the program. Either way, durability requires both a real estate instrument that assures perpetual protection AND sufficient funds for long-term management to achieve and maintain the desired ecological conditions on the site.

Transparency

As observed in TNC’s Mitigation Principles document, “meaningful stakeholder participation in decision-making processes supports better, more sustainable outcomes.” We strongly urge that the process of establishing project criteria, project selection and the ongoing implementation of projects be as transparent as possible. Specifically, we recommend that:

1. A public comment period be held to solicit input on draft project criteria and the draft project selection process.
2. Project rankings for both selected projects and projects that were not selected be made public.
3. The Commonwealth establish an online map of selected projects to make it easy to see where the funds have been spent and the benefits of each project (see [HERE](#) for an example).

Coordination and Complementarity

We recommend that the Secretaries of Natural Resources and Agriculture & Forestry convene all the fund managers, including VOF, the U.S. Endowment and the “water quality mitigation partners” periodically throughout the process of disbursing funds, to ensure to the extent possible that the funds are being spent in a complementary way. The online map mentioned above should provide information about both the forest mitigation programs and the water quality mitigation programs.

Project Identification, Proposal and Selection Process

Before conducting a grant round, an assessment of the capacity of land trusts, localities and state agencies to implement projects within the affected pipeline counties and mitigation zones should be conducted, and VOF and the Endowment should identify strategies for addressing geographic gaps in capacity to deliver conservation projects. In addition, VOF and the Endowment should outline the steps that will be taken to identify additional project opportunities if the initial round of projects submitted within a particular ecoregion don’t meet the criteria outlined above.