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August 22, 2017

Robert Dunn, Chair State Water Control Board VA Department of Environmental Quality P.O. Box 1105 Richmond, VA 23218

RE: Draft Section 401 Certification for the proposed Mountain Valley Pipelines (Certification No. 17-001) and Atlantic Coast Pipeline (Certification No. 17-002)

Dear Mr. Dunn:

The Nature Conservancy appreciates the opportunity to provide comments on the Draft 401 Certifications (Certifications) that have been prepared for the Mountain Valley Pipeline (MVP) and the Atlantic Coast Pipeline (ACP). We appreciate the significant efforts of Virginia Department of Environmental Quality (DEQ) is making to safeguard Virginia's rivers and streams.

The mission of The Nature Conservancy (The Conservancy) is to conserve the lands and waters on which all life depends. The Conservancy is a leading conservation organization working in all 50 states and more than 35 countries. We have helped conserve nearly 15 million acres of land in the United States and more than 118 million acres with local partner organizations globally.

The proposed route of both pipelines would affect areas of deep investment for the Conservancy. The current preferred alternative for the MVP would bisect a conservation easement held by the Conservancy near the headwaters of Bottom Creek in Montgomery County. In addition, MVP and ACP would transect the Central Appalachian Whole System, and the ACP crosses through the Longleaf Pine Whole System Project in southeast Virginia. Within these regions, The Conservancy has worked with public agencies, corporations, private landowners, and local communities to undertake land protection, management, and restoration actions across public and private lands. We have worked with others to develop and implement strategies to protect the best large, intact habitats that will continue to support a diversity of species, in the face of a changing landscape and a changing climate.

Our comments on the Certifications apply to both projects, so we are including both projects in this letter.

Riparian Buffer Requirements

In our scoping comments to FERC, the Conservancy highlighted the importance of intact riparian areas. We recommended that where "avoidance of floodplain forests is not possible, . . . FERC require ACP (and MVP) to avoid and minimize removal of intact floodplain forest through directional drilling techniques where feasible, and through reducing the construction ROW through these forests to 50' even if the floodplain forest is not a delineated wetland."

As DEQ staff are well aware, river health depends on a wide array of processes that require dynamic interaction between the water and land through which it flows. The Conservancy created the Active River Area (ARA) framework to explicitly consider the spatial area necessary for natural processes and disturbance regimes to occur, and thereby allow the inherently dynamic formation, modification, and maintenance of aquatic and riparian habitat (Smith et al, 2008). This area may include less active terraces and high slope riparian land which does not usually receive overbank flooding, but which contribute to other important riverine processes such as shading, input of woody debris, sediments, and nutrients which influence river health. (The Nature Conservancy, 2009).

The Draft Certifications include the additional protective measures for riparian habitats including:

- 2.a) "Disturbance and removal of riparian buffers from Project related upland land disturbing activities that would occur within 50 feet of any perennial, intermittent, or ephemeral surface waters shall be avoided where possible, and minimized to the maximum extent practicable if 50 feet is not possible."
- 2.b) "The construction limit of disturbance (LOD) in upland areas approaching waterbody and wetland crossings shall be reduced from 125 feet to 75 feet and extended 50 feet from each side of the stream or wetland crossing as an additional upland buffer."

While The Conservancy finds that the above protections are beneficial, we do not think that using a standard stream buffer requirement of 50' regardless of stream size and floodplain characteristics will fully protect water quality or fluvial dynamics. We believe that reducing the LOD and avoiding disturbance and removal of riparian forest within a variable buffer width such as the Active River Area or a similar system would better protect stream resources.

In addition, paragraph c includes language stating "A 100 foot riparian buffer shall be maintained between any perennial, intermittent, or ephemeral surface waters and all fueling, maintenance, parking and hazardous material storage activities." Again we find that a variable buffer width representing stream conditions would be more protective.

Karst Habitats

In our scoping comments to FERC regarding the MVP and ACP, we recommended that FERC and the project applicants "use the best available data, expert consultation, and field inventory to identify and avoid impacts to biologically significant cave systems along this an all other mid- Atlantic shale gas pipeline routes". Both draft certifications include the requirement that "To further evaluate flow paths for karst features in the vicinity of the project, the Owner shall develop a Karst Dye Tracing Plan to be submitted and approved by the Department". The Conservancy agrees that the knowledge of groundwater connections gained through dye tracing studies would be valuable in determining effective strategies to avoid and minimize impacts to karst features, however the Draft Certifications fail to specify how the results of the Dye Tracing Plan would be used to modify any existing conditions to protect karst resources. We request that the draft be revised to clarify how the results of dye tracing studies will be used.

Slope Failure

In our scoping comments to FERC, we noted the topographical complexity and roughness of the terrain through which the two projects will travel. Dominion's May 31, 2017 response to DEQ indicates that the ACP will traverse 46 miles of slopes with an inclination of 30 percent or greater and a length of 100 feet or greater. The Final Environmental Impact Statement for the MVP (FEIS) states that it "would cross

22.3 miles of slopes ranging from 15 percent to 30 percent and 75.4 miles of slopes greater than 30 percent. Although large diameter pipeline projects in steep terrain - such as the Ruby Pipeline - have been constructed out west, there is a lack of experience with construction of similar projects through mountainous terrain in a humid climate. We also observe that there have been significant water quality and aquatic habitat impacts associated with episodic or chronic sedimentation and erosion resulting from existing pipelines in the region i.e. the Spectra pipeline slope failure that affected Indian Creek and N. Fork Holston River. Taken together, these factors suggest to the Conservancy that erosion and sedimentation impacts are very likely. We therefore requested in our filings with FERC that recommended methods for minimizing anticipated impacts can be shown by the applicant to have been of demonstrated effectiveness on pipeline construction projects in similar terrain and climate with similar diameter pipe.

Although DEQ has requested information regarding industry standards for construction in steep slopes/slide prone areas, we note that the correspondence between DEQ and the two project proponents does not indicate that these measures have been shown to be effective on steep slopes within the Appalachian Region. The Conservancy requests that DEQ work with the applicants to correct this deficiency.

Once again, we thank you for the opportunity to provide comments to the State Water Control Board on this important issue. If you have any questions about these comments, please contact Judy Dunscomb, Senior Conservation Scientist at jdunscomb@tnc.org or (434) 951-0573.

Sincerely,

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Virginia State Director

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Cc: Elizabeth Gray, Mid-Atlantic Division Director, The Nature Conservancy
Nels C. Johnson, North American Energy by Design Project Director, The Nature Conservancy

References

Smith, M.P., Schiff, R., Olivero, A. and MacBroom, J.G., 2008. The Active River Area: A Conservation Framework for Protecting Rivers and Streams. The Nature Conservancy, Boston, MA.

The Nature Conservancy. 2009. TNC Portfolio Rivers Active River Area. The Nature Conservancy Eastern Conservation Science Office. Boston, MA.