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August 22, 2017

David C. Paylor, Director
Office of Wetlands & Stream Protection
Virginia Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218
acp@deq.virginia.gov

RE: Comments of Chesapeake Bay Foundation on Draft Certification No. 17-002
Water Quality Certification Issued to Atlantic Coast Pipeline, LLC

Dear Director Paylor and members of the Staff of the Office of Wetlands & Stream
Protection:

Chesapeake Bay Foundation (CBF)¹ is pleased to provide herewith its
comments and the comments of its expert David Hirschman² on the Draft
Certification No. 17-002 (draft Certification) prepared by the Department of
Environmental Quality (DEQ) as part of its work under Clean Water Act (CWA) §
401 for the proposed Atlantic Coast Pipeline project (Project). We appreciate DEQ's
hard work in addressing this very challenging Project.

¹ CBF is the largest nonprofit organization dedicated solely to restoring the Chesapeake Bay and its tributaries. As part of that mission, CBF has been closely engaged in analyzing the likely environmental impacts of the Project proposals. For example, it submitted two sets of scoping comments to the Federal Energy Resources Commission (FERC) for use in the development of FERC's Environmental Impact Statement (EIS). See CBF Comment Letter, dated April 27, 2015, Docket PF15-6-000, Accession number 20150427-5338); CBF Comment Letter, dated June 2, 2016 (Docket CP15-554-000, Accession number 20160603-5078). CBF also submitted detailed comments on FERC's Draft EIS, concluding that the proposed minimization and mitigation of the Project's direct and indirect impacts to wetlands, water quality, stream health and air quality through nitrogen oxide (NOx) emissions will not be adequate to protect these resources. FERC's final environmental impact statement (EIS) failed to address CBF's identified concerns.

² See Exhibit A, David J. Hirschman, Principal, Hirschman Environment & Water, LLC, "Comments on the Virginia Department of Environmental Quality's proposed 401 certification for the Atlantic Coast Pipeline" (Hirschman Comments"), Mr. Hirschman's curriculum vitae, and his Statement of Qualifications.

The Draft Certification is one of the Commonwealth's most consequential opportunities to ensure that the construction and operation of the Project, spanning the distance from the Allegheny Mountains to the Chesapeake Bay, will not harm Virginia's myriad headwater creeks and downstream waterways. To ensure CWA goals are achieved under each state's specific circumstances, CWA § 401 requires each state to evaluate whether a federal permit applicant whose activities may potentially discharge to waterways will harm water quality; only if such activities do not cause such harm is 401 certification appropriate.³ The state may impose a variety of conditions on the Project to protect water quality, and it is fully empowered to decline certification where record inadequacies do not reasonably assure protection of affected waterways.⁴ Indeed, only a few days ago, the U.S. Court of Appeals for the Second Circuit affirmed a state environmental agency's rejection of a pipeline company's 401 certification application; it reasoned, in part, that the application was not supported by information sufficient to determine whether the project would comply with the state's water quality standards.⁵

The states' role in evaluating and certifying a federal project has never been more important than it is here, given the Project's scope and potential to impact hundreds of small streams as well as larger tributaries that drain to the Chesapeake Bay. Decades of Bay restoration work, earlier under the Tributary Strategies and more recently under the Chesapeake Bay TMDL,⁶ have made it clear that pollution to tributary streams is a major and ongoing cause of Bay degradation;⁷ without protecting them, the Chesapeake Bay will never be restored. Now, in part because of better upstream pollution controls, early signs of Bay and tributary recovery are visible: improved water clarity, increases in submerged aquatic grasses, and burgeoning oyster populations.⁸ To ensure continued restoration and protection of

³ See CWA § 401, § 33 U.S.C. 1341; 9VAC25-260.

⁴ See, e.g., *Constitution Pipeline Company, LLC v. New York State Department of Environmental Conservation, et al.*, No. 16-1568 (2nd Cir. August 18, 2017) (affirming the decision of state agency to deny 401 certification where natural gas pipeline application failed to contain sufficient information to reasonably assure compliance with the state's water quality standards).

⁵ See *id.*

⁶ See *Chesapeake Bay Total Maximum Daily Load*, dated December 29, 2010, available at <https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document>.

⁷ Since about 2005, Virginia taxpayers and ratepayers have invested approximately \$2B in upgrading its wastewater treatment facilities alone, with a comparable amount invested in the agricultural community in best management practices.

⁸ See, e.g., draft Virginia Water Quality Assessment 305(b)/303(d) Integrated Report 2016, available at <http://www.deq.virginia.gov/Portals/0/DEQ/Water/WaterQualityAssessments/IntegratedRepo>

Commonwealth waterways, it is imperative that DEQ use its full CWA § 401 authorities to review, condition where appropriate, and, if necessary, decline to certify the Project.

DEQ has proposed to address the Project's § 401 certification in two separate segments. For activities impacting uplands – that is, activities that may cause indirect impacts to waterways other than to wetlands and stream crossings -- DEQ devised and followed a new Project review procedure,⁹ culminating in the draft Certification's conclusion that Project activities, conducted with 15 DEQ-added conditions, demonstrate “reasonable assurance” they will not violate applicable water quality standards.¹⁰ For activities impacting stream crossings and wetlands, DEQ deferred review and certification to the U.S. Army Corps of Engineers (USACE) and its Nationwide 12 permit. We believe the bifurcated certification process was inappropriate and the draft Certification reflects serious omissions and weaknesses that contradict the agency's conclusion that there is “reasonable assurance” of water quality protection.

In these circumstances, the State Water Control Board (“Board”) must decline to approve the draft Certification and remand it to DEQ for necessary modifications. Moreover, for the reasons set out below, we also urge the Board and DEQ to reconsider the earlier decision to defer to the USACE the CWA § 401 certification of the portion of the Project impacting stream crossings and wetlands, to conduct its own thorough evaluation under CWA § 401, and to certify that part of the Project only if that searching review provides reasonable assurance of water quality protection.

I. THE BOARD SHOULD NOT APPROVE THE DRAFT CERTIFICATION BECAUSE IT DOES NOT REST ON REASONABLE ASSURANCE OF WATER QUALITY PROTECTION

[rt/2016/ir16_Integrated_Report_Full_Draft.pdf](#) (evidence of improvements in dissolved oxygen and submerged aquatic grasses).

⁹ See Guidance GM17-2003; see also Draft Certification, at 3 (scope limited to upland areas “which may result in an indirect discharge to waters of the United States or water withdrawal activities that are exempt from coverage under the Virginia Water Protection Permit. . . [including] all proposed upland land-disturbing activities associated with the construction, operation, maintenance, and repair of the pipeline, any components thereof or appurtenances thereto, and related access roads and rights-of-way as well as certain project-related surface water withdrawal; activities. . . within the route identified in the Environmental Impact Statement.”)

¹⁰ *Id.*, at 1.

The Board should decline to approve the draft Certification because it rests on inadequate and incomplete information, fails adequately to condition its proposed approval on measures needed to prevent foreseeable water quality impacts, and does not encompass wetlands and stream crossings which are among the most sensitive features of the affected landscape. In these circumstances, approval of the draft Certification would be arbitrary, capricious and, therefore, subject to being overturned on court review.¹¹

A. DEQ Did Not Demand or Review Adequate And Complete Information When It Prepared The Draft Certification.

DEQ has failed to obtain and consider the information it needs to fully understand the Project's likely water quality impacts and the reasonably anticipated efficacy of the controls the Project owner proposed and DEQ has added. Some of the most striking record omissions are identified below.

Water quality standards and analysis of impacts. The § 401 certification process requires states to assess whether a federally-permitted project like the one at issue here will violate the state's water quality standards. In meeting that goal, DEQ must identify the water quality standards applicable to each affected stream and water body and then review (or review and approve the Project owner's assessment) of Project-caused impacts to those waterbodies. Standards that should be addressed for this Project include: 9VAC25-260-20 (keeping water body free of substances, including turbidity, that are inimical or harmful to human, animal, plant or aquatic life); 9VAC25-260-30 (requiring minimum water level to protect existing uses and prevent degradation); 9VAC25-260-40 (prohibiting stream flow alterations that harm aquatic life propagation, growth); 9VAC25-260-50 (identifying numerical criteria for dissolved oxygen, pH, and temperature); 9VAC25-260-60 (temperature); 9VAC260-70 (temperature); 9VAC260-185 (dissolved oxygen, submerged aquatic vegetation, water clarity and chlorophyll in Chesapeake Bay and tidal tributaries); and 9VAC260-310 through 540 (special standards for specific basins). No such information or analysis of the likely quantity and timing of discharges that may affect water quality appears in this record.

The absence of this information in a proposed § 401 certification for a project of this magnitude is, frankly, stunning. The Project pipeline will traverse more than 600 miles in Virginia and other states, including many miles across national forest

¹¹ See, e.g., *Motor Vehicle Manufacturers' Ass'n of the United States v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 43 (1983) (to survive judicial review, agency decision must rest on sound record evidence).

lands in Virginia.¹² It will consist of two main pipeline facilities, three pipeline laterals,¹³ three new compressor stations and other infrastructure that will be capable of delivering up to 1.5 billion cubic feet per day of natural gas to customers in Virginia, North Carolina, and West Virginia.

The Project will create land disturbances at an unprecedented level, including more than 12,000 acres for construction and almost 6,000 for operations, much of it in Virginia.¹⁴ Across the region, almost 400 existing roads will be upgraded, 64 new roads for construction and 419 permanent roads will be needed for ongoing maintenance and operations.¹⁵ Construction will require excavation of deep trenches for pipeline installation that will disturb 32.5 miles of karst terrain in Virginia with related impacts to sensitive groundwater, cave systems and spring systems. Notably, 84 miles of the pipeline routes will impact mountainous terrain with slopes greater than 20%. Further, building the pipeline will require approximately 1,000 water body crossings,¹⁶ many of which are within national forest areas. In Virginia alone, Project construction will impact 311.9 wetland acres and operations will impact 84.2 wetland acres.¹⁷

It is well understood that large scale land disturbing projects, including land clearance, mining, logging and pipeline construction, have the potential to lead to legacy sediments which can have long-term impacts upon aquatic life, despite transient periods of impacts.¹⁸ Previously installed natural gas pipelines have demonstrated legacy impacts despite transient periods of disturbance both domestically and abroad.^{19,20} For instance, in southern Wisconsin, negative impacts to wetland soils were detected eight years following construction of a natural gas pipeline.²

These impacts can occur locally or in downstream systems with high storage or retention capacities. Downstream systems with high storage capacities may be

¹² EIS 2-1.

¹³ EIS 2-1.

¹⁴ EIS 2-15 to 2-17.

¹⁵ EIS 2-25.

¹⁶ EIS 4-103.

¹⁷ EIS, 4-135.

¹⁸ James, A. 2013. Legacy sediments: Definitions and processes of episodically produced anthropogenic sediment. *Anthropocene*. (2) 16-26.

¹⁹ Olson, E.R. and J.M. Doherty. 2012. The legacy of pipeline installation on the soil and vegetation of southeast Wisconsin wetlands. *Ecological Engineering*. (39) 53-62.

²⁰ X. Yu, G. Wang, Y. Zou, Q. Wang, H. Zhao, and X. Lu. 2010. Effects of Pipeline Construction on Wetland Ecosystems: Russia–China Oil Pipeline Project. *Ambio*. (5-6) 447-450.

degraded by legacy sediment accumulation for long periods of time following the disturbance. The Tidal Fresh James River Estuary has been shown to have a high trapping capacity and thus high rates of sedimentation.²¹ While this trapping provides some protection to downstream waters (*i.e.*, main stem Chesapeake Bay), these legacy sediments contribute to degraded water quality within the estuary. These loads contribute to poor water clarity and thus threaten recovery of oysters and submerged aquatic vegetation in this system. These loads also facilitate high rates of nutrient recycling which supports algal blooms and their associated impacts (Wood *et al.* 2016).²² In addition to the impacts to ecosystem services, increased turbidity and sedimentation have clearly documented negative consequences for biotic integrity (benthic fauna) with some sensitive species experiencing impacts at even small increases.²³ The potential for ecological recovery, still poorly understood, does not always result in a return to the original state,^{24,25} further emphasizing the importance of preventing such impacts.

Given these concerns, it is imperative that regulators carefully evaluate impacts of these pollutants in the context of water quality standards, considering the timeframe within which the impacts are expected to occur, but also specifically identifying the quantity or rate of impacts as well as the amount of time downstream systems will take to recover from the impacts. In this case, in the absence of such an evaluation, the basis on which DEQ found a “reasonable assurance” of water quality protection is not clear.

Approved Plans. The record in an appropriate § 401 certification for an extensive pipeline process must include agency-approved Erosion & Sediment Control (“ESC”) plans for each of the Project segments to describe how the Project

²¹ Bukaveckas, P.A. and W. Isenberg. 2013. Loading, Transformation, and Retention of Nitrogen and Phosphorous in the Tidal Freshwater James River (Virginia). *Estuaries and Coasts*. (36) 1219-1236.

²² Wood, J.D., D. Elliott, G. Garman, D. Hopler, S. McIninch, A.J. Porter and P.A. Bukaveckas. Autochthony, allochthony and the role of consumers in influencing the sensitivity of aquatic systems to nutrient enrichment. *Food Webs*. (7) 1-12.

²³ Bryce, S.A., G.A. Lomnicky and P.R. Kaufmann. Protecting sediment-sensitive aquatic species in mountain streams through the application of biologically based streambed sediment criteria.

²⁴ Frissell, C.A. and D. Bayles. 1996. Ecosystem Management and the Conservation of Aquatic Biodiversity and Ecological Integrity. *Journal of the American Water Resources Association*. (32) 2.

²⁵ Duarte, C.M., D.J. Conley, J. Carstensen and M. Sánchez-Camacho. Return to *Neverland*: Shifting Baselines Affect Eutrophication Restoration Targets. *Estuaries and Coasts*. (32) 29-36.

owner will control polluted runoff during active construction,²⁶ and the agency-approved Stormwater Pollution Prevention Plan (“SWPPP”), that demonstrates how the Project owner will implement measures to control post-construction runoff.²⁷ DEQ acknowledges these plans to be crucial, stating that the measures are “critically important to minimizing potential water quality impacts from the ACP project. . . Proper stormwater management and ESC design, implementation and monitoring will be paramount in protecting those resources.”²⁸ Indeed, the DEQ website refers to them in an apparent effort demonstrate that its review of the Project will be thorough.²⁹ The draft Certification even misleadingly recites that DEQ has considered “the record relevant to water quality considerations” including “Documents submitted pursuant to requirements of the Stormwater Management Act and Erosion and Sediment Control Law.”³⁰ Moreover, the centrality of the ESC plans and the SWPPP is reflected in correspondence between DEQ and the Project owner: In response to DEQ’s request for additional information on runoff protections for steep slope areas,

²⁶ See 9VAC25-840-40 (identifying minimum criteria, techniques and methods to be detailed in approvable ES&C plans, including requirements for: permanent or temporary soil stabilization; soil stock piling; permanent vegetative cover, sediment basins and traps, slope protection, concentrated runoff; outlet protection, sediment transport control, protection of inlets and outlets of conveyance and receiving channels, minimization of encroachment, temporary vehicular crossings, watercourse stabilization, underground utility lines, minimizing sediment transport from vehicular traffic, protection of downstream properties from sediment flow, verification of channel adequacy, channel improvement to prevent downstream erosion, flow rate capacity and velocity requirements for natural or man-made stormwater channels, etc.).

²⁷ See 9VAC25-870-54 (identifying minimum criteria for approvable SWPPPs, including: approved ES&C plan; approved stormwater management and pollution prevention plans for regulated land-disturbances; TMDL controls; controls for onsite stormwater volume and velocity; controls for stormwater discharges with peak flow rates and total stormwater volume that minimize erosion at outlets, downstream channels and stream banks; minimizing soil exposure during construction activity, steep slope disturbance, and sediment discharges, addressing amount, frequency, intensity and duration of precipitation, nature of resulting stormwater runoff, soil particle sizes and other characteristics; maintenance of natural buffers around surface waters; measures to direct stormwater to vegetated areas to maximize infiltration, minimize soil compaction and preserve topsoil; required stabilization timing, surface water withdrawal requirements, etc.).

²⁸ DEQ comments on draft EIS, at XXXX.

²⁹ See, e.g.,

<http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/ErosionandSedimentControl/NaturalGasPipelineErosionandSedimentControlandPostConstructionStormwaterManagement.aspx>.

³⁰ Code citation omitted from this quotation.

and the owner indicated that its plan to protect steep slopes “will be included in the SWPPP.”³¹

Notwithstanding these admissions, the record does not include any DEQ-approved ESC plan or SWPPP. Under the arbitrary schedule DEQ itself set, the agency will not approve them before October of this year. While DEQ now possesses *draft* SWPPP- and ESC-related documents, they are incomplete and plainly inadequate to meet the standard DEQ has set: “project-specific [erosion and sedimentation control and stormwater plans](#) for every foot of land disturbance related to pipeline construction, including access roads and construction lay-down areas.”³² We anticipate that these documents will undergo significant changes over the next several weeks, not least because of the pendency till early October of the public comment period, and the specific analysis that DEQ will be required to undertake thereafter.³³

The omission of such information on the potential effects of increased sediment, nutrient and other pollutants is striking not least because of threats such pollution may have on the Commonwealth’s ability to meet its commitments under the Chesapeake Bay TMDL/Virginia Watershed Implementation Plan. Virginia’s efforts and achievements in reducing pollution from development activities such as the Project are significantly lagging. DEQ and the Board must ensure that the Project does not make achievement of its WIP goals even more challenging.

In the absence, then, of such final plans, it is clear that the draft Certification rests on a defectively incomplete record.

³¹ See Project owner’s responses to DEQ information request, dated June 27, 2017, at 22.

³² See DEQ’s web article, “Water Protection for Pipelines,” <http://www.deq.virginia.gov/Programs/Water/ProtectionRequirementsforPipelines.aspx> (“DEQ is requiring each pipeline developer to submit detailed, project-specific [erosion and sedimentation control and stormwater plans](#) for every foot of land disturbance related to pipeline construction, including access roads and construction lay-down areas. These plans must comply with Virginia’s stormwater and erosion and sediment control regulations that are designed to protect water quality during and after construction. These plans will be reviewed by qualified professionals (either DEQ staff or third-party engineers) and will be posted for public review. An engineering consulting firm will assist in DEQ’s review of the erosion and stormwater plans. . .”).

³³ See, e.g., DEQ guidance memorandum Guidance GM17-2003 (“It is the Department’s intent that this information request will be consistent with the project owner’s planned schedule.”). DEQ has posted the Project’s draft SWPPP and its ES&C Plans, and has invited public comment on them until October 13, 2017.

Other Missing Information. The record is incomplete in many other respects. For example, DEQ requested that the Project owner provide water withdrawal information in connection with its plans to do water withdrawal for dust control. The Owner provided some, but promised that, “prior to the start of construction,” it will submit to DEQ a Water Use Plan with additional critical information: water use spreads, construction timing for different parts of the Project, locations of water sources for each construction spread, and calculations of the estimated maximum daily amount of water that will be needed for each construction spread.³⁴ This information is essential for evaluating the impacts of the anticipated water withdrawals. It should be part of the review that DEQ undertakes under CWA § 401.

DEQ’s failure to review the information necessary to understand Project impacts means that the draft Certification should be rejected and withdrawn until this information is provided and fully evaluated, approved, and incorporated into the certification along with any necessary additional conditions.³⁵

B. The Draft Certification’s Conditions Are Not Adequate to Protect Waterways from Sedimentation and Associated Nutrient Pollution

It is essential that the draft Certification include effective conditions to protect streams and other waterbodies from sediments and additional pollutants stemming from Project activities. As indicated below, DEQ’s proposed conditions do not adequately ensure that Virginia waterways will be protected from Project-related impacts in many respects. Accordingly, the Board should decline to approve the draft Certification until DEQ addresses the problems identified below.

Maximum Area of Disturbance/Linear Feet of Active Trench Excavation. The failure of the draft Certification’s Conditions to clearly limit the maximum area of land that may be disturbed at any one time is a striking and potentially fatal omission.³⁶

It is a well understood erosion and sediment control principle that construction projects must be sequenced and conducted such that the *minimum* amount of land reasonably necessary is disturbed at one time and then stabilized before the contractor moves on to the next section. As the Environmental Protection Agency has indicated: “There is no better protection for downstream waters than limiting the amount of land disturbance at any given time.”³⁷ This principle is also embodied in Virginia’s

³⁴ See Project owner’s responses to DEQ information request, dated June 2017, at 16.

³⁵ See, e.g., *Constitution Pipeline Company, LLC*, at 20 (affirming denial of 401 certification for proposed gas pipeline).

³⁶ See Exhibit A, Hirschman Comments, at 2-3.

³⁷ See “Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites,” Environmental Protection Agency, EPA-833-R-06-004 (2007), at 18, *available at*

Erosion and Sediment Control regulations at Minimum Control Standard 16, which prohibits a construction operator from allowing more than 500 linear feet of trench to remain open at one time.³⁸ The rule applies to smaller projects and state work, but is also required to be included in the Annual Standards and Specifications that govern federal pipeline construction projects.³⁹ This rule should certainly be applied in the present case, given the amount of land disturbance and the large potential for erosion and steam sedimentation arising from the steep, wide and deep trenches contemplated here.

Yet, in the Project papers and the draft Certification there is significant uncertainty over the application of the principle, partly because of the competing sets of applicable rules and also because of the ability of the Project owner to seek variances from the otherwise applicable rules during construction. Thus, the DEQ-approved Annual Standards & Specifications (“AS&S”)⁴⁰ for Dominion do indeed purport to incorporate by reference Virginia’s ESC regulations, including Minimum Standard 16 which limits the maximum area of disturbance to 500 linear feet at one time. This is helpful, of course, but the AS&S also allow the Project owner to seek deviations from these rules in unspecified circumstances.⁴¹ Moreover, the Project will also be governed by FERC’s Plans and Procedures (“P&P”),⁴² which do not appear to limit the maximum area of disturbance; moreover, the documentation designed to list

<https://www.epa.gov/npdes/developing-stormwater-pollution-prevention-plan-swppp>). See also Exhibit A, Hirschman Comments, at 2.

³⁸ See, e.g., 9VAC25-840-40 (Minimum Standard 16 requirements for underground utility lines installation include: “a. No more than 500 linear feet of trench may be opened at one time. b. Excavated material shall be placed on the uphill side of trenches. c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property. d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization. e. Restabilization shall be accomplished in accordance with this chapter. f. Applicable safety requirements shall be complied with.)

³⁹ See 9VAC25-840-30 see also Va. Code § 62.1-44.15-56 (prohibiting state approval of E&S plan that is not consistent with state standards).

⁴⁰ See

<http://www.deq.virginia.gov/Portals/0/DEQ/Water/Pipelines/VSM/ACP/DEQ%20DETI%20SandS%20Approv1%20July%202017.pdf?ver=2017-07-10-133250-913>.

⁴¹ See Project owner’s AS&S, Appendix H, “Approved Deviations”; see also 9VAC25-840-50 (noting that any of the requirements deemed inappropriate or too restrictive for site conditions may be waived by a variance).

⁴² See Project owner’s AS&S, at 1.5.1, available at

<http://www.deq.virginia.gov/Portals/0/DEQ/Water/Pipelines/VSM/ACP/DETI%20Annual%20Standard%20Narrative.pdf?ver=2017-07-10-133203-897>.

conflicts between the AS&S and the P&P makes no mention of the 500 linear foot limitation.⁴³

To address these and other regulatory uncertainties⁴⁴ regarding a critical ESC practice, the draft Certification must be remanded for the addition of appropriate conditions that unambiguously limit the maximum area of disturbance to 500 linear feet as set forth in Minimum Standard 16.

Pre- and Post- Construction Runoff Characteristics. The draft Certification should, but does not, require pre-construction and post-construction hydrological equivalency in the characteristics of the stormwater runoff.

The Project owner-submitted documentation is inconsistent on this point. While the most recent information submitted to DEQ asserts there will be hydrological equivalency,⁴⁵ other information makes it clear this will not be the case. For example, the Project owner's AS&S acknowledges, with respect to many of the new Project-required permanent access roads it will build, "a material change to the existing stormwater runoff characteristics as a result of the addition of impervious surface."⁴⁶ In another example, the Project owner indicated it will add "permanent slope breakers" to "reduce runoff" and to "shorten the "flow path" in connection with the anticipate accumulation and release of subsurface flow.⁴⁷ These plans describe the

⁴³ See draft Project ESC plans, Appendix J (VA FERC table, 4), <https://atlanticcoastpipeline.com/permitting-process/deq-filings.aspx> ("FERC plan IV.A.1: Project-related ground disturbance shall be limited to the construction right-of-way, extra work space areas, pipe storage yards, borrow and disposal areas, access roads, and other areas approved in the FERC's Orders. Any project-related ground disturbing activities outside these areas will require prior Director's approval. This requirement does not apply to activities needed to comply with the Plan and Procedures (*i.e.*, slope breakers, energy-dissipating devices, dewatering structures, drain tile system repairs) or minor field realignments and workspace shifts per landowner needs and requirements that do not affect other landowners or sensitive environmental resource areas. All construction or restoration activities outside of authorized areas are subject to all applicable survey and permit requirements, and landowner easement agreements.")

⁴⁴ For example, it is essential that the Project contractors' strictly conform to the appropriate site stabilization practices (hydro-seeding, mulching techniques, etc.) within time frames at least as stringent as those in the Virginia standards, and preferably (given the steep and rugged terrain characterizing much of the Project path) more stringent imposed by a condition of the final certification.

⁴⁵ See, *e.g.*, Project owner's responses to DEQ information request, dated June 26, 2017, at 13.

⁴⁶ See Exhibit A, Hirschman Comments, at 4.

⁴⁷ See Exhibit A, Hirschman Comments, at 4.

actual Pipeline-caused changes to the hydrology of the affected corridor, which is contrary to the claim of “hydrologic equivalency.”

The Project owner’s admission that the Project will make potentially dramatic changes to the hydrology must be addressed in the Certifications. In particular, but without limitation, DEQ must make an explicit determination that the stormwater management rules will be sufficient to protect the post-construction water quality and the integrity of the stream channels of receiving waterways. It must also specifically assess whether the statewide stormwater management rules will be adequate to ensure water quality and to protect stream channels given the rugged terrain, steep slopes and karst terrain at issue for much of the pipeline route. (We note the regulatory presumption that Virginia’s stormwater management regulations will, taking into account discharges from all new development on a statewide basis, ensure no net increase in pollution *to the Bay*⁴⁸; that regulatory presumption does not necessarily ensure protection of local streams in this Project as it crosses extreme terrain conditions. Before issuing the requested 401 certification, DEQ must ensure that evaluation is undertaken and any necessary protections are added as conditions.)

Riparian Buffers. The draft Certification includes condition 2(b) that would impose a critical prohibition against removal of riparian buffers within 50 feet of all streams, whether “perennial, intermittent, or ephemeral surface waters,”⁴⁹ yet it also allows removal where such a buffer is “not possible.” Unless the condition is amended to specify and limit the circumstances that DEQ will consider “not possible,” it will afford little reliable stream protection.

Moreover, while the condition helpfully states what should be a mandatory limit of land disturbances (LOD) approaching water bodies and wetland crossings of 75 feet with an additional 50 foot buffer from each side of the stream or wetland crossing,⁵⁰ this condition is also undercut by an exception for situations where it is “not possible.” Without further definition, this language simply amounts to an “escape hatch,” allowing contractors to avoid the limitation where compliance would be inconvenient. That this is a serious concern is made clear from the Project owner’s discussion on the subject in its most recent submission to DEQ.⁵¹ Yet, the draft Certification does not explain the circumstances for which DEQ might consider granting an exception. It should be amended to clarify any such conditions and

⁴⁸ See 9VAC25-870-63.C (clarifying that the governing water quality standards in the stormwater management regulations focus on Bay restoration, rather than protection of local streams in mountainous areas: “Upon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards.”)

⁴⁹ See Draft Certification, Condition 2.

⁵⁰ See draft Certification, at 2(c).

⁵¹ See Project owner’s responses to DEQ information request, June 27, 2017, at 19.

criteria, and also to require DEQ's written approval of any requests before construction.⁵²

The section also prohibits removal of riparian buffers not associated with crossings where stream bank stability under *normal* flow conditions would be compromised. This condition should be amended to prohibit such removal where stream bank stability would be compromised under normal conditions *and* conditions arising from foreseeable high flow conditions.

ESC Practices Inadequate for the Terrain. The Owner has referenced its intent to use silt fences, straw bales and "herbaceous strips" to protect against erosion at stream crossings during construction.⁵³ As indicated in the Virginia Erosion and Sediment Control Handbook,⁵⁴ these practices should be used only in limited circumstances where the drainage area is no greater than a quarter of an acre per 100 feet of barrier length; the maximum slope behind the barrier is 100 feet; the maximum slope behind the barrier is 50%; and for swale or ditch lines, the maximum drainage area is no greater than one acre and the flow is no greater than one cubic foot per second.⁵⁵

The Project will without doubt traverse terrain that would not be suitable to control erosion using the identified practices. Accordingly, the draft Certification should be amended to require the use of additional, effective best management practices (e.g., erosion control traps or basins) in cases where straw bales, silt fences and the like will be inadequate.

Water Quality Monitoring Plan. The draft Certification includes a condition that requires the Owner's adherence to its submitted Water Quality Monitoring Plan, which provides that the Owner must conduct nine grab samples per site⁵⁶ (three taken before, three taken during, and three taken after site stabilization) for identified chemical parameters (DO, pH, conductivity, turbidity). The information on impacts, and therefore on necessary steps for stream protection, which can be provided by this limited monitoring schedule is far less than that which would be provided by DEQ's preferred monitoring protocol: continuous monitoring for a month.⁵⁷

The potential consequences of an inadequate monitoring program are serious. The impacts of land disturbance on water quality are fundamentally associated with

⁵² See Exhibit A, Hirschman Comments, at 4.

⁵³ See Project owner's responses to DEQ information request, June 27, 2017, at 20.

⁵⁴ See Exhibit A, Hirschman Comments, at 5.

⁵⁵ See Exhibit A, Hirschman Comments, at 5.

⁵⁶ See Project owner's responses to DEQ information request, June 27, 2017, at 28.

⁵⁷ See Exhibit A, Hirschman Comments, at 7.

the flow of stormwater from the disturbed site into the receiving waterbody. Effective water quality monitoring that characterizes the impacts of land disturbance must occur during and directly after precipitation events. Continuous monitoring is the most efficient way to capture these events. This goal could also be accomplished through discrete sampling but *only* if these samples can capture baseflow *and* precipitation events. The current plan which only proposes a total of nine samples from seven sites along the entire 234 mile Virginia pipeline route after site stabilization will not provide sufficient evidence to indicate if a disturbance has occurred and certainly will not do so within sufficient time to address problematic discharges.

The draft Certification must be amended to address these concerns, particularly by a condition that requires continuous monitoring, or at least monitoring under a much more aggressive, comprehensive and effective protocol than proposed currently.

Surface Water Withdrawals. The draft Certification limits the withdrawal of surface water to 10% of the instantaneous flow rate of the affected water body, but is silent as to how the Project owner will measure and achieve such limitations. The Board should require DEQ to secure additional information from the Owner to be added to the current proposed condition to ensure it is effective in protecting flow.

The draft Certification should also more clearly prohibit any placement of fill material in any water or karst feature, and the language in the current condition that allows the Corps to override that prohibition should be deleted. As stated above, CWA 401 is the Commonwealth's opportunity to protect water quality in the face of federal projects; there is no reason to allow another federal agency to override the state's authority.

French Drain Effect. Gravel in the pipeline trenches has the well-recognized potential to serve as a "French drain" – a practice that allow water to be drained away from streams or wetlands. In this case, the Project owner's documentation indicates it intends to use excavated rock backfill in the trenches. The draft Certification should be amended, therefore, with a new condition that require measures such as permanent trench breakers (included in the Project owner's AS&S⁵⁸) that will avoid or minimize the French drain effect.

Soil Compaction. The draft Certification should be amended to include specific conditions that require the minimization of soil compaction in forested areas.

Karst management plan. The draft Certification should be amended to include a new condition that expressly requires the Project owner to comply with its submitted protocol for monitoring groundwater quality and yield for public and

⁵⁸ See Project owner's AS&S, Appendix C, Section V.B (p. 13); see also Exhibit A, Hirschman, at 7.

private supply wells and springs within 500 feet of the pipeline in karst areas and within 150 for the balance of the pipeline.

C. The Draft Certification Fails to Address and Protect Wetlands and Stream Crossings.

The Board should request DEQ to reconsider and reverse its decision to defer to the USACE and its Nationwide 12 permit for wetlands and stream impacts. DEQ should then review these expected impacts pursuant to its thorough individual permitting process under the Virginia Water Protection Program regulations.⁵⁹

The Project proposes a significant loss of wetlands,⁶⁰ particularly in light of the status and historic trends for wetland losses and protections in the Commonwealth and region. Historic development activities, agriculture, and infrastructure construction have caused North Carolina, Pennsylvania, Virginia and West Virginia to suffer tremendous losses in wetland acreage and its associated functions and values. These losses have substantially contributed to the degradation and eutrophication of receiving waters, including Chesapeake Bay. Many of these receiving waterways have been categorized as impaired for various designated uses and consequently have total maximum daily loads and watershed implementation plans which are focused on restoring them to water quality standards. Efforts to restore these natural resources involve a substantial investment by citizens of Pennsylvania, Virginia, West Virginia and North Carolina.

State administered wetland mitigation programs which have been developed relatively recently have slowed the loss of wetlands through requiring mitigation and are intended to result in “no net loss of existing wetland acreage and functions.” While stream and wetland mitigation can be a beneficial tool, the National Research Council (NRC)⁶¹ and the scientific literature⁶² have documented that mitigation projects often fail to achieve pre-impact levels of ecosystem services and benefits; thus, EPA and DEQ have committed to prioritizing avoidance and minimization over

⁵⁹ See Va. Code § 62.1-44.15:20.D (“Issuance of a Virginia Water Protection Permit shall constitute the certification required under § 401 of the Clean Water Act”).

⁶⁰ See *supra*, at footnote 17.

⁶¹ NATIONAL RESEARCH COUNCIL ET AL., COMPENSATING FOR WETLAND LOSS UNDER THE CLEAN WATER ACT (2001).. Committee on Mitigating Wetland Losses, Board on Environmental Studies and Toxicology, Water Science and Technology Board, Division on Earth and Life Studies

⁶² Barbara L. Bedford, *Cumulative effects on wetland landscapes: Links to wetland restoration in the United States and southern Canada*, 19 WETLANDS 775 (1999) ; Joy B. Zedler, *Progress in wetland restoration ecology*, 15 TRENDS IN ECOLOGY & EVOLUTION 402.

mitigation.⁶³ Consequently, it is unclear that addressing large-scale impacts to wetlands through mitigation will result in no net loss of function.

The level of wetland impacts proposed with the Project is significantly greater than the level of impacts associated with other major projects that were not able to proceed.⁶⁴ To our knowledge, since the Clean Water Act was adopted, no project with the level of wetland impacts proposed in this Project has ever been permitted and completed in the Commonwealth of Virginia.⁶⁵ From that perspective, the unprecedented scale of the wetland impacts to be created by this Project underscores the importance of a careful evaluation of both direct and indirect effects and the importance of specific details establishing whether and how mitigation will achieve “no net loss of function.” DEQ, relying on its Water Protection Permit program, is fully capable of conducting that evaluation and ensuring appropriate protections are in place.

Coverage under Nationwide 12 will allow these losses to be obscured by addressing and evaluating them as multiple separate impacts.⁶⁶ Intended to cover utility line activities, including natural gas pipelines “provided the activity does not result in the loss of greater than ½-acre of waters of the United States for each single and complete project,”⁶⁷ Nationwide 12 is in practice subject to the Army’s regulatory definition of each individual stream or wetland crossing along the length of a pipeline as a “single and complete” project.⁶⁸ The effect of this measure in the present case is to hide the huge cumulative effects of the impacts from the Project’s multiple stream and wetlands crossings.

⁶³ Compensatory Mitigation for Losses of Aquatic Resources, 73 Fed. Reg. 19,594 (Apr. 10, 2008) (codified at 40 C.F.R. pt. 230).

⁶⁴ For example, the proposals (which did not receive federal authorization) for a massive expansion of Virginia Route 460 and the attempt to build a major reservoir in King William, Virginia, both involved large scale wetland impacts.

⁶⁵ CBF Communication with USACE Staff (January 2016).

⁶⁶ Virginia allows coverage under Nationwide 12 to constitute its 401 Certification provided that such coverage: Requires wetland and stream impacts to be avoided and minimized to the maximum extent practicable; 2. Prohibits impacts that cause or contribute to a significant impairment of state waters or fish and wildlife resources; 3. Requires compensatory mitigation sufficient to achieve no net loss of existing wetland acreage and functions or stream functions and water quality benefits; and 4. Require compensatory mitigation for unavoidable wetland impacts to be provided in accordance with [9VAC25-210-116](#). 5. Requires compensatory mitigation for unavoidable stream impacts to be provided in accordance with [9VAC25-210-116](#), including but not limited to an analysis of stream impacts utilizing a stream impact assessment methodology approved by the board. See http://www.nao.usace.army.mil/Portals/31/docs/regulatory/IssuedPermits/401_Certification_2017_NWP_7April2017.pdf?ver=2017-04-11-100044-3309VAC25-210-50.

⁶⁷ See 33 C.F.R. § 330.2(i).

⁶⁸ Nationwide Permit 12, at 3.

Under CWA 401, Virginia, like all of the other states to be traversed by this pipeline system, should undertake its own, careful assessment of stream and wetland crossings. It is fully authorized to do so, having reserved “the right to require an individual application for a permit or a certificate or otherwise take action on any specific project that could otherwise be covered under any of the NWP’s, when it determines on a case-by-case basis that concerns for water quality so dictate.”⁶⁹ The Clean Water Act demands as much.

D. CONCLUSION

For all the foregoing reasons, as well as the comments of expert David J. Hirschman and those submitted by Southern Environmental Law Center, both of which are incorporated by reference herein, it is clear that the draft Certification does not rest on reasonable assurance that that water quality in receiving streams – including the tributaries and other waters subject to the Chesapeake Bay TMDL and the commitments of Virginia’s WIP -- will be protected.

Echoing the concerns of the many Virginia legislators representing the districts in the headwaters of the Chesapeake Bay who have long been committed to restoring and protecting Virginia’s water land resources, we respectfully urge the Board to recognize that the draft Certification fails to meet Congress’s intent when it granted the states the responsibility to protect state waters through CWA § 401, to decline approval of the draft Certification and to remand the matter to DEQ for further work consistent with these comments.

Sincerely,



Margaret L. (Peggy) Sanner
Virginia Assistant Director & Senior Attorney



Joseph Wood
Virginia Scientist

cc: Robert Dunn, Chair, State Water Control Board
Members of the State Water Control Board
Pamela Faggert, Dominion Resources
Melanie Davenport, DEQ Water Division Director
Rebecca LePrell, CBF Virginia Executive Director
Chris Moore, CBF Virginia Senior Regional Scientist

⁶⁹ See 9VAC25-210-130H.

