APPALACHIAN MOUNTAIN ADVOCATES

P.O. Box 507
Lewisburg, WV 24901
ph: 304-645-9006
fax: 304-645-9008
email: info@appalmad.org
www.appalmad.org

Virginia Department of Environmental Quality
Office of Wetlands & Stream Protection
P.O. Box 1105
Richmond, VA 23218
By email to comment-acp@deq.virginia.gov

Re: Comments on Draft Clean Water Act Section 401 Water Quality Certification No. 17-002 for the Atlantic Coast Pipeline

Appalachian Mountain Advocates, on behalf of Appalachian Voices, Chesapeake Climate Action Network, Dominion Pipeline Monitoring Coalition, Friends of Nelson, Natural Resources Defense Council, Satchidananda Ashram-Yogaville, the Sierra Club, the Virginia Chapter of the Sierra Club, and Wild Virginia ("Commenters"), submit the following comments on draft Clean Water Act ("CWA") Section 401 Certification No. 17-002, including the "Additional 401 Water Quality Conditions" for activities in upland areas, proposed to be issued to Atlantic Coast Pipeline, LLC ("ACP") for its Atlantic Coast Pipeline project ("the Pipeline" or "the Project"). These groups' members' rely on the numerous water resources that would be adversely impacted by the Pipeline for drinking water, recreation, and many other beneficial uses.

The Atlantic Coast Pipeline would require clearing and grading up to a 125-foot wide swath for over 300 miles[1] through Highland, Bath, Augusta, Nelson, Buckingham, Cumberland, Prince Edward, Nottoway, Dinwiddie, Brunswick, and Greensville Counties in Virginia, including significant areas of steep, mountainous terrain, and require constructing many more miles of access roads as well as additional temporary workspaces. The potential impacts to aquatic resources from construction and operation of a 42-inch greenfield pipeline through this area's fragile terrain, including steep and highly erodible slopes and extensive karst formations, are immense.

Construction and operation of major natural gas pipelines such as the Atlantic Coast Pipeline present numerous threats to water quality that could result in violations of water quality

[1] DEQ's public notice states that the Project will involve construction of approximately 337 miles of pipeline in Virginia, while the draft Certification states that approximately 307 miles of pipeline will traverse the Commonwealth. DEQ must resolve this discrepancy.

standards and other requirements of the CWA. As the Federal Energy Regulatory Commission (FERC) acknowledged in the final environmental impact statement (FEIS) for the Pipeline, "[i]mpacts on waterbodies could occur as a result of construction activities in stream channels, on adjacent banks and riparian areas, and from the use of access roads." Final Environmental Impact Statement for the Atlantic Coast Pipeline and Supply Header Project (hereinafter "FEIS") at 4-113; see also id. at 4-114 ("Vegetation clearing, grading for construction, and soil compaction by heavy equipment near stream banks could promote erosion of the banks and the transport of sediment into waterbodies by stormwater runoff."). Those impacts include "local modifications of aquatic habitat involving sedimentation, increased turbidity, and decreased dissolved oxygen concentrations." Id. Additionally, FERC states that

> Sedimentation and increased turbidity can occur as a result of in-stream construction activities, trench dewatering, or stormwater runoff from construction areas and access roads. In slow moving waters, increases in suspended sediments (turbidity) may increase the biochemical oxygen demand and reduce levels of dissolved oxygen in localized areas during construction. Suspended sediments also may alter the chemical and physical characteristics (e.g., color and clarity) of the water column on a temporary basis.

Id. at 4-113–4-114.

In addition to shorter-term impacts associated with in-stream construction, "Long-term impacts related to slope instability adjacent to streams have the potential to adversely impact water quality and stream channel geometry, in addition to downstream aquatic biota." Id. at 129. Further,

> ongoing impacts could occur due to increased surface runoff and erosion/sedimentation from cleared areas, disturbed steep slopes, surface compaction, access roads, and the proximity of the right-of-way and other features to streams. If sources of sedimentation result from stormwater runoff from access roads or the construction right-of-way, and are received by waterbodies, there is potential for substantial episodic impacts.

Id. at 4-130.

Those impacts would harm the aquatic organisms that rely on the affected streams for their survival. As FERC states,

> Increased sedimentation and turbidity resulting from in-stream and adjacent construction activities would displace and impact fisheries and aquatic resources.

> The EPA considers both suspended and bedded sediments and their potential impacts to aquatic life for water quality standards. Suspended sediments may adversely affect submerged macrophytes by reducing light available for photosynthesis by plants and visual capacity for animals, while bedded sediments settle out on the bottom of the waterbody and smother spawning beds and other habitats. Sedimentation could smother fish eggs and other benthic biota and alter stream bottom characteristics, such as converting sand, gravel, or rock substrate to silt or mud. These habitat alterations could reduce juvenile fish survival, spawning habitat, and benthic community diversity and health. Increased turbidity could also temporarily reduce dissolved oxygen levels in the water column and reduce respiratory functions in stream biota. Turbid conditions could also reduce the ability for biota to find food sources or avoid prey, and cause physiological effects in fish, such as gill clogging.

Id. at 4-228–4-229.

The Virginia Department of Game and Inland Fisheries (VDGIF) echoed many of those concerns in an August 17, 2017 letter to FERC discussing the FEIS. See VDGIF Letter, attached as **Exhibit 1**, at 3. There, VDGIF stated that it continued to have serious concerns regarding certain "major issues," including the impacts of the Pipeline on threatened and endangered species (including aquatic species), impacts to "important water resources" such as trout streams, Anadromous Fish Use Areas, and Threatened and Endangered Species Waters, and impacts associated with construction on steep slopes and in sensitive in karst terrain. Id. at 2–4. The agency, which is responsible for determining likely impacts upon fish and wildlife resources and habitat and recommending appropriate measures to avoid, reduce or compensate for those impacts, made clear that significant additional analysis and coordination is necessary to ensure that the Pipeline does not result in unacceptable adverse impacts. Id. The Atlantic Coast Pipeline thus presents numerous unresolved threats to the quality of Virginia's precious water resources.[2] See also

[2] Particular threats and impacts are discussed in more detail in the following reports, which are incorporated by reference as if set out fully herein: Pamela C. Dodds, Ph.D., Licensed Professional Geologist, Hydrogeological Assessment of the Proposed 401 Water Quality Certification to Be Issued for the Atlantic Coastal Pipeline Project, Virginia, By The Virginia State Water Control Board, August 17, 2017, attached as **Exhibit 2**; Pamela C. Dodds, Ph.D., Licensed Professional Geologist, Assessment of the Adverse Hydrogeological Impacts Resulting From Construction of the Proposed Atlantic Coast Pipeline in West Virginia, Virginia, and North Carolina, March 2017, attached as **Exhibit 3**; Downstream Strategies, Atlantic Coast Pipeline Sediment Modeling Methodology, attached as **Exhibit 4**.

Because the Pipeline is a project that requires a federal license[3] and would result in pollution discharges subject to regulation under the Clean Water Act, 33 U.S.C. § 1251 *et seq.*, it is subject to Section 401 of the CWA, which provides that:

> Any applicant for a Federal license or permit to conduct any activity, including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate ... that any such discharge will comply with the applicable provisions of section 1311, 1312, 1313, 1316, and 1317 of this title[.]

33 U.S.C. § 1341(a)(1). Among other things, a certification under Section 401 must ensure that a federally permitted project complies with Section 303 of the CWA, 33 U.S.C. § 1313. That section "requires each state, subject to federal approval, to institute comprehensive water quality standards establishing water quality goals for all intrastate waters." PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700, 704 (1994). State water quality standards "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based on such uses[,]" 33 U.S.C. § 1313(c)(2)(A), and must "include 'a statewide antidegradation policy' to ensure that '[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.'" PUD No. 1, 511 U.S, at 705 (quoting 40 C.F.R. § 131.12). Compliance with water quality standards lies at the heart of the certification required under Section 401. Indeed, U.S. EPA regulations require that certifications include a "statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards." 40 C.F.R. § 121.2(a)(3).

Virginia's water quality standards designate all state waters for the following uses: "recreational uses, e.g., swimming and boating; the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; wildlife; and the production of edible and marketable natural resources, e.g., fish and shellfish." 9VAC25-260-10A. In addition to establishing numeric criteria for specific pollutants designed to ensure that those uses can be met, Virginia's water quality standards regulations include a narrative criterion that prohibits "substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which contravene established standards or interfere directly or indirectly with designated uses of such water or which are inimical or harmful to human, animal, plant, or aquatic life." 9VAC25-260-20A. The

[3] At a minimum, the Pipeline requires a Certificate of Public Convenience and Necessity from the Federal Energy Regulatory Commission (FERC) pursuant to Section 7 of the Natural Gas Act and a permit for the discharge of dredge or fill material to waters of the United States from the U.S. Army Corps of engineers ("the Corps") pursuant to Section 404 of the Clean Water Act.

regulation specifically includes turbidity-causing pollutants such as sediment in the list of substances that are to be controlled. 9VAC25-260-20B. Thus, in order to determine whether the Pipeline would lead to violations of Virginia's water quality standards, DEQ must evaluate whether the project's contributions of sediment and other pollutants would harm human, animal, plant, or aquatic life.

For numerous reasons, the Virginia Department of Environmental Quality's ("DEQ") draft Certification for the Atlantic Coast Pipeline falls far short of meeting Section 401's requirements. Fundamentally, DEQ's 401 analysis is insufficient because it fails to comprehensively consider the Pipeline's impacts on Virginia's waters, but instead draws an arbitrary line between impacts associated with construction activities in upland areas and those associated with stream and wetland crossings. Because the Project's effect on Virginia's water quality can only be determined by assessing the combined, cumulative effect of those impacts, DEQ's analysis does not satisfy the Clean Water Act. Even if DEQ's analysis did not draw this artificial division, however, it would still fail because ACP has not provided adequate information to determine the combined effect of its pipeline construction activities on water quality. For instance, without knowing exactly what measures will be employed to avoid and minimize impacts to water quality, and without a demonstration of the proven effectiveness of those measures, DEQ cannot reasonably assure that the Project "will be conducted in a manner which will not violate applicable water quality standards," including the required anti-degradation review. Indeed, recent experience with pipeline construction through similar or less challenging terrain demonstrates that even "best in class" pollution control measures are insufficient to prevent significant damage to water resources from pipeline construction. Moreover, without performing a quantitative sedimentation analysis, DEQ can do little more speculate about how the Project will affect compliance with Virginia's water quality standards.

DEQ thus must issue a finding that ACP's application materials are incomplete, demand that the company withdraw its application until it can provide the information required to reasonably determine the Pipeline's impact on water quality standards, and—only once it has collected all of the necessary information—initiate a new Section 401 review that comprehensively assesses the effects of the proposed project. DEQ must not rush this critical process in order to meet arbitrary deadlines set by the Pipeline developers, who have yet to demonstrate that their private, for-profit project serves any real public need.

I. DEQ Impermissibly Segmented its Review of the Pipeline's Water Quality Impacts

DEQ has illegally divided its CWA § 401 review between impacts associated with activities in "upland" areas and impacts associated with stream and wetland crossings that are subject to regulation by the U.S. Army Corps of Engineers ("the Corps") under CWA § 404. After previously promising the public that it would perform a comprehensive, project-specific review of *all* of the Pipeline's significant water quality impacts under § 401, as required by law,

DEQ has gone back on its word and instead chosen to rely on two separate, blinkered reviews.[4] This approach, which as far as Commenters are aware is unique to the Virginia DEQ, does not comply with the Clean Water Act or with the basic realities of watershed hydrology.

DEQ states that the Certification that is the subject of this public comment period applies only to "Project activities in upland areas outside of the Corps jurisdictional areas under 33 U.S.C. § 1344 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 Program Regulation (9 VAC 25-210-10, et seq.)." See Draft "401 Water Quality Certification No. 17-002, Issued To Atlantic Coast Pipeline, LLC Pursuant To Guidance Memo No. GM17-2003 Interstate Natural Gas Infrastructure Projects -Procedures for Evaluating and Developing Additional Conditions for Section 401 Water Quality Certification Pursuant to 33 USC § 1341 (hereinafter "Certification") at 2. Those activities include "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 withdrawals." Id. To address the impacts of the Pipeline's many waterbody crossings, DEQ purports to rely entirely on its previously-issued 401 certification for the U.S. Army Corps of Engineers' Nationwide Permit 12 ("NWP 12"), despite the fact that the NWP 12 certification was granted without review of *any* information particular to the Atlantic Coast Pipeline and despite the fact that the Corps has yet to determine that the Pipeline is eligible for coverage under NWP 12.[5] See Certification at 3 ("The Department's 401

[4] See Duncan Adams, *DEQ acknowledges error, clarifies approach to review of pipelines*, The Roanoke Times, May 24, 2017, available at http://www.roanoke.com/business/news/deq-acknowledges-error-clarifies-approach-to-review-of-pipelines/article_2ea11f0c-1fac-5531-aaae-ba6d7f0b2e0c.html. DEQ's error here was far from harmless. Because DEQ explicitly told the public that the Atlantic Coast Pipeline would undergo an individualized Section 401 review, many of the individuals and organizations whose primary concerns pertained to the impacts of that specific project did not devote their limited resources of time and money to involve themselves in DEQ's administrative process for the General Virginia Water Protection Permit that constitutes the Section 401 Certification for the Corps' NWP 12. Whether by deception or incompetence, DEQ has thus deprived a large portion of the concerned public of the opportunity to participate in DEQ's consideration of the Pipeline's many waterbody crossings.

[5] Indeed, coverage under NWP 12 is inappropriate for projects with the scale of impacts of the Atlantic Coast Pipeline, which under no reasonable interpretation can be classified as "minimal," as required for coverage under a CWA § 404 general permit. See Appalachian Mountain Advocates et al. Comments on Dominion Transmission, Inc.'s Atlantic Coast Pipeline Virginia Joint Permit Application serving as a Pre-construction Notification for Authorization under Section 10 and Section 408 of the Rivers and Harbors Act, Section 404 of the Clean Water Act for Nationwide Permit 12 (Utility Line Activities), Virginia Water Quality Certificate under Section 401 of the Clean Water Act, Virginia Water Protection Permit, Stream Crossing Permit, and the Tidal Wetland Permit, attached as **Exhibit 5**; Sierra Club et al. Comments on the U.S. Army Corps of Engineers' Proposal to Reissue and Modify Nationwide Permit 12, Docket No.

Water Quality Certification for the Corp's Nationwide Permit 12 issued April 7, 2017 and this additional Certification . . . together constitute the Commonwealth of Virginia's 401 Certification for the Project."). Thus, the only project-specific impacts that DEQ addresses in the draft Certification are those associated with upland impacts of the pipelines.

Unfortunately, the waterbodies that will be impacted by the Pipeline do not respect DEQ's artificial boundaries. Rather, those streams and wetlands' water quality (and, consequently, their compliance with Virginia's water quality standards) will be determined by the combined effects of *all* pollution discharges associated with construction and operation of the Pipeline. Nowhere does DEQ examine how the impacts from waterbody crossings and the impacts from upland activities will work in concert to cumulatively increase the quantity, extent, and duration of sediment and other relevant pollutants in the affected waterbodies. Without analyzing and quantifying how much additional sedimentation and associated turbidity will result from the cumulative effects of the Pipeline's direct disturbance of streams and wetlands and its disturbance of upland areas, DEQ cannot reasonably conclude that the Project will comply with water quality standards.

Instead of performing the required analysis, DEQ merely concludes, without providing any supporting documentation or quantification of impacts, that the "additional reasonable and prudent conditions" imposed by the Certification will provide an "increased degree of assurance that upland Project activities which may result in a discharge to surface waters will be conducted in a manner that is protective of water quality." Certification at 3.[6] Even if DEQ could reasonably conclude based on the extant record that the Pipeline's upland impacts will not lead to violations of water quality standards—which, as Commenters explain in greater detail below, it cannot do—that conclusion alone is insufficient to support the issuance of a 401 certification for the entire project. Because DEQ has failed to comprehensively examine the cumulative impacts of all pollution discharges associated with the "activity" for which the federal license is

---

COE-2015-0017, attached as **Exhibit 6**. Further, reliance on Virginia's existing Section 401 certification for NWP 12 is inappropriate because that certification was improperly granted and is currently the subject of litigation in the Virginia courts. See Sierra Club Comments on Section 401 Water Quality Certification of Norfolk District Army Corps of Engineers 2017 Nationwide Permits, attached as **Exhibit 7**; Dominion Pipeline Monitoring Coalition Comments on Notice of Intent to Provide Section 401 Water Quality Certification for Activities Authorized Under Corps of Engineers Nationwide Permit 12, attached as **Exhibit 8**; Petition for Appeal of Dominion Pipeline Monitoring Coalition et al. in the Circuit Court for the City of Richmond, attached as **Exhibit 9**.

[6] On its face, the Certification does not contain a "statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards," as required by 40 C.F.R. § 121.2(a)(3). To the extent that the statement quoted above does not constitute a direct finding of compliance with water quality standards, DEQ's certification is invalid.

being sought, it cannot issue a valid Certification for the Pipeline. See 33 U.S.C. § 1341 (requiring a 401 certification for "any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters").

II. DEQ Has Failed to Perform the Antidegradation Analysis Required by CWA § 401

Ensuring an activity's compliance with water quality standards requires not only examining whether the proposed discharges will lead to exceedances of narrative and numeric water quality criteria, such that existing and designated uses are not met, but also performing an antidegradation analysis. As the United States Court of Appeals for the Fourth Circuit has explained,

> three factors are considered when adopting or evaluating a water quality standard: (1) one or more designated uses of the state waters involved [such as fishing and swimming]; (2) certain water quality criteria, expressed as numeric pollutant concentration levels or narrative statements representing a quality of water that supports a particular designated use; and (3) an antidegradation policy to protect existing uses and high quality waters. [33 U.S.C. § 1313(c)(2)(A)]; 40 C.F.R. § 131.

Nat. Res. Def. Council, Inc. v. U.S. E.P.A., 16 F.3d 1395, 1400 (4th Cir. 1993). See also 40 C.F.R. § 131.12 (requiring states to "develop and adopt a statewide antidegradation policy" and establishing requirements for those policies and implementation methods). Thus, to certify that there is a reasonable assurance that a federally permitted activity will be conducted in a manner that will not violate applicable water quality standards, a state must consider (1) designated uses, (2) numeric and narrative water quality criteria, and (3) the state's antidegradation policy. EPA has made clear that States "must apply antidegradation requirements to ... any activity requiring a CWA §401 certification." 63 Fed. Reg. 36,742, 36,780 (July 7, 1998).

The antidegradation policy established by CWA § 303(d), 33 U.S.C. § 1313(d), "requir[es] that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation." PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700, 706 (1994). That policy is a fundamental part of state water quality standards. Id. ("EPA's regulations implementing the Act require that state water quality standards include a 'statewide antidegradation policy'[.]"(quoting 40 C.F.R. § 131.12)); see also Nat. Res. Def. Council, 16 F.3d at 1400 (noting that the antidegradation policy is one of three elements of a state's water quality standards).

State antidegradation policies must be consistent with 40 C.F.R. § 131.12(a), and states must develop implementation methods consistent with that provision, 40 C.F.R. § 131.12(b). The federal regulations require that antidegradation policies protect existing uses, maintain the

existing quality of high-quality waters unless degradation is justified by socio-economic development, and prohibit degradation of outstanding National resource waters. Id. § 131.12(a).

Virginia's antidegradation policy is set out in 9VAC25-260-30, which mandates that the policy "shall be applied whenever any activity is proposed that has the potential to affect existing surface water quality." It assigns three tiers of protection to Virginia's waters, commonly known as Tier 1, Tier 2, and Tier 3, depending on their existing quality and national significance. 9VAC25-260-30A. Levels of protection vary for each tier.

Tier 1 includes so-called "impaired" waters, that is, waters that fail to meet their designated use due to one or more pollutants, as well as waters that just barely meet those uses. For Tier 1 waters, Virginia's antidegradation policy requires that "existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 9VAC25-260-30A.1. As DEQ explains on its website "[t]his means that as a minimum, all waters should meet adopted water quality standards." DEQ, "Antidegradation," http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityStandards/Antidegradation.aspx. Thus, in Tier 1 waters, the introduction of virtually any new pollution sources will violate the antidegradation policy (or, more simply, contribute to a violation of water quality standards) if those sources discharge pollutants associated with impairment.

Tier 2 waters constitute those "high quality" waters that exceed water quality standards. The quality of those waters must be maintained and protected unless DEQ "finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Commonwealth's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 9VAC25-260-30.A.2. Tier 2 review also requires that, prior to finding that any such lowering of water quality is necessary, the agency must conduct an "alternatives analysis" which "evaluate[s] a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity" and select one such alternative for implementation. 40 C.F.R. § 131.12(a)(2)(ii). Additionally, for Tier 2 waters, DEQ must "assure that there shall be achieved the highest statutory and regulatory requirements applicable to all new or existing point source discharges of effluent and all cost effective and reasonable best management practices for nonpoint source control." 9VAC25-260-30.A.2.

Finally, Tier 3 waters are those which have been specifically designated as "exceptional state waters" because they "provide exceptional environmental settings and exceptional aquatic communities or exceptional recreational opportunities." 9VAC25-260-30.A.3. Water quality in Tier 3 waters "shall be maintained and protected to prevent permanent or long-term degradation or impairment." Id.

DEQ appears to have issued its draft Certification without performing any of the required antidegradation review, thus preventing it from reasonably assuring that the Project will not violate Virginia's water quality standards. The Pipeline would cross at least 18 Tier 1 impaired streams in Virginia, some of which would be crossed multiple times and many of which are impaired for aquatic life support. FEIS at 4-109; FEIS Appendix K. DEQ has failed to establish that the Pipeline's stream crossings and upland activities would not contribute to that ongoing impairment or would be in compliance with any Total Maximum Daily Loads established to allow those waters to meet their designated uses.

Additionally, DEQ does not have adequate information to reasonably conclude that certain important existing uses, such as support for sensitive, threatened, and endangered species, would be "maintained and protected." The U.S. Fish and Wildlife Service has yet to complete its consultation under Section 7 of the Endangered Species Act, 16 U.S.C. § 1536, and issue a Biological Opinion for the multiple listed aquatic species that would be impacted by the Pipeline. That Opinion will detail the predicted impacts on threatened and endangered species and will include reasonable and prudent alternatives and measures necessary to lessen impacts.Until DEQ knows what steps will be taken to protect threatened and endangered species, it cannot possibly know what the impacts of pipeline construction on those species will be.[7] DEQ thus cannot certify that the Project will comply with Virginia water quality standards, including its antidegradation policy for Tier 1 waters.

DEQ has likewise failed to comply with its antidegradation policy for the hundreds of Tier 2 waters that would be impacted by the Pipeline. First, DEQ has not performed the required alternatives analysis, but appears only to have evaluated the applicant's desired alternative as outlined in the FEIS. A proper alternatives analysis would require in depth assessment of the feasibility of less damaging construction methods, such as "trenchless" stream crossing methods, as the New York State Department of Environmental Conservation did for the Constitution and Northern Access pipelines, discussed in greater detail in Section IV of these comments. Second, DEQ has not demonstrated, and ACP has not submitted the information necessary to demonstrate, whether the lowering of water quality in these waters that would result from construction and operation of the Pipeline is "*necessary* to accommodate important economic or social development *in the area in which the waters are located*." See 9VAC25-260-30.A.2 (emphasis added).Information available to DEQ demonstrates clearly that the Pipeline is *not* required to meet the region's energy needs and would *not* have an overall positive economic benefit on the areas that it disturbs. See Comments of Appalachian Mountain Advocates on the Draft Environmental Impact Statement (hereinafter, "DEIS Comments"), attached as **Exhibit 10**,

[7] The EIS for the Atlantic Coast Pipeline does not include sufficient information on impacts to listed species to make this determination. See DEIS Comments, Section V.

at Sections II and IV and corresponding exhibits. DEQ thus cannot grant ACP's requested certification.

III. ACP Has Not Demonstrated That It Can Effectively Control Erosion and Sedimentation from Pipeline Construction and Operation

In order to conclude that construction and operation of the Pipeline would comply with water quality standards, DEQ relies almost exclusively on ACP's imposition of erosion and sediment control best management practices (BMPs). DEQ's conclusion is entirely unsupported by, and in many cases directly contradicted by, the available evidence. In contrast to DEQ's rosy prediction, past experience shows that pipeline construction activities like those proposed by ACP consistently cause significant water quality problems despite the application of "industry standard" and "best in class" pollution control efforts.

Remarkably, DEQ has made its determination that the Project will not violate water quality standards before the agency has approved the site-specific erosion and sediment control plans for the Pipeline, which it states will be evaluated in a separate, later process that is not subject to official public participation. Obviously, DEQ cannot rationally conclude that those plans will adequately control sedimentation before they have been completed. See DEIS Comments, Section XIII and corresponding exhibits. Given the incompleteness and overall inadequacy of ACP's erosion and sedimentation analysis and proposed control measures, DEQ cannot possibly conclude at this time that the Pipeline would comply with water quality standards.[8] See FEIS at 4-125 (explaining that, because ACP has yet to finalize its erosion control and rehabilitation measures for pipeline construction on National Forest lands, specific erosion and sedimentation impacts cannot be determined).

Indeed, there are numerous examples of significant sedimentation and other pollution impacts occurring during pipeline construction despite the use of industry-standard erosion and

[8] The same is true of DEQ's analysis of karst impacts, where DEQ relies on an as-yet-undeveloped Karst Dye Tracing Plan and inadequate Karst Survey Report and Karst Terrain Assessment, Construction, Monitoring and Mitigation Plan. Certification at 4–5. Given the significant threats posed by construction of a 42-inch pipeline through such fragile terrain, DEQ must fully evaluate the Project's impacts *before* granting any Section 401 Certification. See Chris Groves, PhD, Karst Landscapes and Aquifers of the Central Appalachian Mountains and Implications for the Proposed Atlantic Coast Pipeline, April 3, 2017, attached as **Exhibit 11**; Ernst H. Kastning, Ph.D., P.G., An Expert Report on Geologic Hazards in the Karst Regions of Virginia and West Virginia, July 3, 2016, attached as **Exhibit 12**; Ernst H. Kastning, Ph.D., P.G., Supplemental Report by Dr. Ernst Kastning Regarding Geologic Issues with the Proposed Mountain Valley Pipeline, May 15, 2017, attached as **Exhibit 13**; Pamela C. Dodds, Ph.D., Licensed Professional Geologist, Hydrogeological Assessment of Karst Area Impacts Caused by Constructing the Mountain Valley Gas Pipeline Across Peters Mountain, Monroe County, West Virginia, attached as **Exhibit 14;** DEIS Comments, Section XII and accompanying exhibits.

sedimentation controls. A 42-inch diameter pipeline has never been constructed through the steep, rugged, highly-erodible terrain of the region of the Appalachian Mountains that would be traversed by the Atlantic Coast Pipeline. However, construction of much smaller pipelines in the region has repeatedly resulted in extreme sedimentation impacts.

For example, in 2006, during construction of a 20-inch East Tennessee Gas Pipeline in Tazewell and Smyth Counties, Virginia, slopes failed in two independent events in Indian Creek and North Fork Holston River, resulting in a kill of several hundreds of individuals and multiple species of endangered mussels. *See* April 10, 2015 Comments of the Scientific and Technical Committee of Preserve Craig, Inc. to the USDA Forest Service, attached as **Exhibit 15**. The worst sediment problems originated not directly at the stream crossings, but high in the watershed where small streams transported sediment to the larger streams. Evidence of the sediment was detected as far as two kilometers downstream of the slips. These impacts occurred despite extreme care taken by FERC, USFWS, the Virginia Department of Conservation and Recreation, and the company to ensure that state-of-the-art erosion control measures were in place. Id.

Similarly, a 2014 Columbia Gas of Virginia project to add a 12-inch pipeline adjacent to an existing 6-inch pipeline along Peter's Mountain near a portion of the Jefferson National Forest in Giles County, Virginia, led to extreme sedimentation impacts. *See* Dominion Pipeline Monitoring Coalition, Case Study - Columbia Gas, Giles County, VA, available at http://pipelineupdate.org/case-study-no-1. This location involves similar terrain and is very close to the proposed route of the ACP. Inspection reports by the US Forest Service describe sediment movement that "looked like a lava flow" and note that the inspector had "never seen that much sediment move off site before." USFS Inspection Reports of Sept. 5, 2014 and September 15, 2014, available at http://pipelineupdate.org/national-forest-pipeline-inspection-reports/.Much of the sediment became embedded in a nearby stream. Id. These impacts occurred despite the existence of comprehensive erosion control plans, implementation of Best Management Practices, and weekly inspections by the company to ensure proper implementation. Id. As demonstrated by the photo below showing massive amounts of sediment that has travel beyond the company's installed silt fence and bypassed a diversion channel, standard erosion and sediment control practices are simply not sufficient to protect against damage associated with pipeline construction on the steep slopes of this area.

Sedimentation at Columbia Gas Site near Jefferson National Forest (Source: Dominion Pipeline Monitoring Coalition)

Additionally, construction of Dominion's G-150 and TL-589 gas pipelines in West Virginia led to slope failure at pipeline stream crossing locations during and post construction, resulting in harm to streams despite the application of industry-standard erosion and sediment control practices. West Virginia Department of Environmental Protection Consent Order No. 8078, dated October 1, 2014, addressed a series of 13 locations in West Virginia where lower slope slippage or landslides along pipeline construction right-of-ways introduced sediment into streams in violation of regulations concerning conditions not allowable in waters of the State, specifically sediment deposits. Likewise, the Stonewall Gathering Line, a 36-inch pipeline constructed in the central part of the state, racked up 53 violations from the West Virginia Department of Environmental Protection (WVDEP) for failure to maintain sediment and erosion controls, not using the proper best management practices and failing to comply with their stormwater pollution prevention plan and groundwater protection plan. The company was fined $110,000.

The same story occurred in Pennsylvania with construction of Tennessee Gas Pipeline's (TGP) 300 Line Project, part of the Susquehanna West Project. See Comments of Allegheny Defense Project and Damascus Citizens for Sustainability on Susquehanna West Pipeline Environmental Assessment, FERC Docket CP15-148-000, filed April 18, 2016 (Accession No.

20160418-5264) at 13-17. In May of 2010, FERC issued an environmental assessment for the 300 Line Project, finding there would be no significant impacts when TGP crossed streams in northeast and north-central Pennsylvania. FERC relied on TGP's plan to follow construction guidelines created by the Corps, USDA, NRCS, and FERC. In addition, FERC imposed its own conditions. However, despite what FERC believed to be adequate measures, TGP's construction violated Pennsylvania Clean Water Law multiple times. The majority of the project's compliance reports contained at least one violation of the project plans, but the plan was never enforced. Id at 15-16. Whether the plan was inadequate in its substance or inadequately enforced, the end result is the same; the pipeline's stream crossings, which FERC believed would cause no significant environmental impact, resulted in numerous violations and an $800,000 penalty settlement with the Pennsylvania DEP. Id at 13.

Most recently, construction of the Rover Pipeline resulted in the WVDEP having to issue a Cease and Desist Order issued on July 17,' 2017 after numerous violations for failure to maintain erosion control devices which allowed sediment to enter nearby streams. The photos included with that order demonstrate that the "best-in-class" erosion and sedimentation control measures proposed by ACP are insufficient to prevent significant violations of water quality standards. Importantly, the violations cited there made clear that it was not simply that Rover failed to follow its plans, but that the stormwater pollution prevention plans themselves were inadequate. See WVDEP Order No. 8749, July 17, 2017, attached as **Exhibit 16** (citing Rover for failing to "modify its Stormwater Pollution Prevention Plan (SWPPP) when the SWPPP proved to be ineffective for achieving the general objectives of controlling pollutants in storm water discharges at the compressor site" in subparagraphs 2.d and 3.d of the Findings of Fact section). Rover's violations did not end there, however. Prior to the cease and desist order being lifted, Rover was cited for additional violations of West Virginia's water quality standards associated with sediment discharges and failure of BMPs. See Ken Ward, *More water violations found on Rover Pipeline construction sites*, Charleston Gazette-Mail, August 19, 2017, available at http://www.wvgazettemail.com/news/20170819/more-water-violations-found-on-rover-pipeline-construction-sites. Rover was operating pursuant to a FERC certificate, such that it was bound by the same FERC erosion standards that DEQ concludes will adequately control sedimentation from ACP's proposed project.

These examples all demonstrate that DEQ cannot rely on ACP's use of "industry-standard" or "best-in-class" erosion and sedimentation BMPs to conclude that construction and operation of the Pipeline will not result in violations of water quality standards. See also March 9, 2016 Comments of the US Forest Service on Final Resource Reports for the Mountain Valley Pipeline, attached as **Exhibit 17** (explaining that past pipeline projects have resulted in significant sedimentation impacts despite use of BMPs, noting that pipeline sedimentation impacts are often long-term, not temporary, and requesting demonstration of the effectiveness of proposed BMPs). DEQ cannot issue its certification unless and until ACP affirmatively

demonstrates that its proposed pollution control measures will adequately control sedimentation and prevent turbidity levels that violate Virginia's water quality standards. Such a demonstration requires quantification of sediment loading, extent, and persistence for each waterbody affected by the Atlantic Coast Pipeline. Because DEQ currently lacks the required information, it cannot issue the Certification.

IV. DEQ Should Follow the Lead of Other States That Have Rejected 401 Certifications Where, Like Here, the Applicant Failed to Provide Adequate Information

Multiple states have denied requests for Section 401 water quality certification for gas pipelines where the applicants failed to provide sufficient information to demonstrate compliance with state water quality standards. The following sections outline the severe impacts and informational deficiencies that caused New York to deny Section 401 certification for the Constitution and Northern Access pipelines, and New Jersey to decline to issue a freshwater wetlands individual permit for the PennEast pipeline. ACP's application suffers from many of the same deficiencies as these denied applications, including a lack of adequate site-specific information, and in many respects provides less information than the applications rejected by those states.

A. Constitution Pipeline

On April 22, 2016, the New York State Department of Environmental Conservation ("NYSDEC") sent a letter to Constitution Pipeline Company, LLC regarding its joint application to obtain a Section 401 certification (along with Protection of Waters and Freshwater Wetlands permits). That project included a new 124.14-mile pipeline originating in Pennsylvania and terminating in New York, including new right-of-way (ROW) construction of approximately 99 miles of new 30-inch diameter pipeline, temporary and permanent access roads, and additional ancillary facilities. The letter notified Constitution that "[b]ased on a thorough evaluation of the Application as well as supplemental submissions, … the Application fails in a meaningful way to address the significant water resource impacts that could occur from this Project and has failed to provide sufficient information to demonstrate compliance with [state] water quality standards." NYSDEC Constitution Letter, attached as **Exhibit 18**, at 1. Furthermore, the pipeline company's "failure to adequately address these concerns limited the Department's ability to assess the impacts and conclude that the Project will comply [with] water quality standards." Id. Accordingly, NYSDEC denied the request for a water quality certification.

NYSDEC's denial of 401 certification was recently upheld by the U.S. Court of Appeals for the Second Circuit. As the court stated,

> [A]n agency's decision may be found 'arbitrary and capricious' for 'issuing a permit with insufficient information' […] NYSDEC is responsible for evaluating the environmental impacts of a proposed pipeline on New York waterbodies in light of the State's water quality standards [… .] [T]he denial of the § 401

certification after Constitution refused to provide relevant information, despite repeated NYSDEC requests, was not arbitrary or capricious.

Constitution Pipeline v. NYSDEC, et al., No. 16-1568, slip op. (2d Cir. Aug. 18, 2017), attached as **Exhibit 19**.

In its denial letter, NYSDEC noted that Constitution project construction would impact 251 streams (87 of which support trout or trout spawning); include disturbance to 3,161 linear feet of streams resulting in 5.09 acres of stream disturbance impacts; cumulatively impact 85.5 acres of freshwater wetlands and result in impacts to regulated wetland adjacent areas totaling 4,768 feet for crossings, 9.70 acres for construction, and 4.08 acres for project operation; and directly impact almost 500 acres of interior forest. Id. at 3. "Cumulatively, within such areas, as well as the ROW generally, impacts to both small and large streams from the construction and operation of the Project can be profound and could include loss of available water body habitat, changes in thermal conditions, increased erosion, and creation of stream instability and turbidity." Id. As with the Atlantic Coast Pipeline, "many of the streams to be crossed present unique and sensitive ecological conditions that may be significantly impacted by construction and jeopardize best uses." Id. Moreover, "[i]mpacts to these streams are exacerbated as the cumulative negative effects of multiple crossings are added." Id.

NYSDEC's letter noted that initially, 100% loss of stream and riparian habitat would occur within the ROW as it is cleared and the pipeline trenched across streams, which would "destroy all in-stream habitat in the shorter term and in some cases could destroy and degrade specific habitat areas for years following active construction." Id. at 4. In addition, changes to the stream channel would persist beyond the active construction period thereby "creating physical and behavioral barriers to aquatic organism passage," and "[l]oss of riparian vegetation that shades streams from the warming effects of the sun will likely increase water temperatures, further limiting habitat suitability for cold-water aquatic species." Id.

As with the Atlantic Coast Pipeline, "destabilization of steep hillslopes and stream banks will likely occur and may result in erosion and failure of banks, causing turbid inputs to waterbodies" that negatively affect water quality and habitat quality. Id. Moreover, "chronic erosion from disturbed stream banks and hill slopes" can cause "consistent degradation of water quality." Id. NYSDEC noted that trenching of streams can also destabilize the stream bed and cause an exceedance of water quality standards, while turbidity and sediment transport from construction can negatively impact aquatic organisms and downstream habitat. Id. Disturbed stream channels are "at much greater risk of future instability, even if the actual work is conducted under dry conditions; long ranging stream erosion may occur up and downstream of disturbed stream crossings well beyond the time of active construction." Id. 4-5.

Constitution re-submitted its application several times and submitted supplemental information, but the application remained deficient. See id. at 6-7 (Table 1, outlining requests and submittals from June 2012 to February 2016). Like Constitution, ACP has failed to provide sufficient information in its application and responses to demonstrate compliance with state water quality standards. Thus DEQ cannot be assured that these "adverse impacts to water quality and associated resources will be avoided or adequately minimized and mitigated so as not to materially interfere with or jeopardize the best usages of affected water bodies." Id. at 8.

1. Stream Crossings

NYSDEC required site-specific information for each of the 251 streams impacted by the Constitution Pipeline project. Id. NYSDEC also informed Constitution that all 251 stream crossings "must be evaluated for environmental impacts and that trenchless technology was the preferred method for stream crossing." Id. Constitution failed to supply the necessary information for decision making.

Deficient Trenchless Stream Crossings Information and Lack of Specific Stream Crossings Details: Because open trenching is a highly impactful construction technique and alternative trenchless techniques exist, NYSDEC directed Constitution to determine whether a trenchless technology was constructible for each stream crossing. Id. See also id. at 9 (where other methods are proposed, "Constitution should explain why trenchless crossing technology will not work or is not practical for that specific crossing"). Although NYSDEC identified the need to provide information so that it could evaluate trenchless stream installation methods, Constitution failed to provide sufficient information to enable the agency to determine if the application demonstrated compliance with state water quality standards, including standards for turbidity, thermal impacts, and best usages. Specifically, NYSDEC noted that Constitution's November 2013 Trenchless Feasibility Study "provided insufficient justification" and "all streams less than 30' wide were arbitrarily eliminated from any consideration for trenchless crossing method." Id. at 10.[9] The study evaluated only 87 of the 251 streams, and ultimately concluded that only 11 stream crossings "displayed preliminary evidence in support of a potentially successful trenchless design." Id. at 11.[10]

[9] Constitution maintained that it excluded streams less than 30' wide because trenchless crossing at such locations could require greater workspace than a conventional dry crossing, but the company did not actually assess the workspace needs of the streams eliminated from consideration. FERC guidelines indicate that HDD is an appropriate method for crossing waterbodies less than 30' wide. *See* FERC, Office of Energy Projects, Wetland and Waterbody Construction and Mitigation Procedures at 8-9 (May 2013), available at https://www.ferc.gov/industries/gas/enviro/procedures.pdf.

[10] Constitution also improperly eliminated streams from consideration by evaluating non-environmental factors such as construction timelines, cost, estimated workspace requirements,

In January 2015, NYSDEC again "indicated that the justification for stream crossing methods was insufficient and that appropriate site specific information must be provided." Id. at 10. The following month, Constitution provided "an updated example of a trenchless feasibility study" that "continued to exclude streams up to 30 feet wide from analysis and did not provide detailed information of the majority of streams." Id. After continued back-and-forth in 2015, Constitution had still not provided sufficient information. NYSDEC therefore did "not have adequate information to assure that sufficient impact avoidance, minimization or mitigation measures were considered as to each of the more than 200 streams proposed for trenched crossings." Id. at 11. Similarly, DEQ currently lacks adequate information with regard to the Atlantic Coast Pipeline stream crossings.

NYSDEC also noted that Constitution's unwillingness to adequately explore a specific route alternative, "with the prospect of potentially fewer overall impacts to water bodies and wetlands when compared to Constitution's preferred route, means the Department is unable to determine whether an alternative route is actually more protective of water quality standards." Id.

NYSDEC concluded that "[d]ue to the lack of detailed project plans, including geotechnical borings, the Department has determined to deny Constitution's WQC Application because the supporting materials supplied by Constitution do not provide sufficient information for each stream crossing to demonstrate compliance with applicable narrative water quality standards for turbidity and preservation of best usages of affected water bodies." Id. at 12. Furthermore, Constitution failed to provide "sufficient detailed information including site specific project plans regarding stream crossings (e.g., geotechnical borings)," and its application lacked "required site-specific information for each of the 251 stream crossings," including, but not limited to:

- the specific location of access roads
- definite location of temporary stream crossing bridges
- details for temporary bridges, including depth of abutments in stream banks
- details of proposed blasting
- the location of temporary coffer dams for stream crossings

Id. As is the case here, the missing information meant that the state agency could not "determine whether additional water quality impact avoidance, minimization, or mitigation measures must be taken to ensure compliance with water quality standards in water bodies associated with this infrastructure." Id.

---

and regulatory agency reviews. NYSDEC informed Constitution that the feasibility determination must be based solely on technical characteristics.

Insufficient Site-Specific Information on Depth of Pipe: Historically, NYSDEC staff had "observed numerous and extensive vertical movements of streams" that had "led to pipe exposure and subsequent remedial projects to rebury the pipe and armor the stream channel" (corrective actions which themselves caused severe negative impacts on water quality, as well as the stability and ecology of the stream). Id. at 13. Accordingly, agency staff requested that Constitution "provide a comprehensive and site-specific analysis of depth for pipeline burial." Id. Constitution failed to provide sufficient information and analysis. NYSDEC noted that "[w]ithout a site-specific analysis of the potential for vertical movement of each stream crossing to justify a burial depth, NYSDEC is unable to determine whether the depth of the pipe is protective" of state water quality standards. Id. NYSDEC also noted that "future high flow events could expose the pipeline," which would "require more extensive stabilization measures and in stream disturbances resulting in addition[al] degradation to environmental quality." Id.

Deficient Blasting Information: Constitution's Blasting Plan failed to "provide site-specific information where blasting will occur," instead providing "a list of potential blasting locations based on the presence of shallow bedrock." Id. Shallow bedrock occurred along 44% of the route in New York, involving 84 wetlands crossings and 27 waterbody crossings. The pipeline company indicated that "a final determination on the need for blasting will be made at the time of construction in waterbodies and wetlands." Id. NYSDEC concluded that "[d]ue to the lack of specific blasting information needed for review with respect to associated water bodies, NYSDEC is unable to determine whether this Plan is protective" of state water quality standards. Id.

2. Wetlands Crossings

Constitution's application failed to "demonstrate that wetland crossings will be performed in a manner that will avoid or minimize discharges to navigable waters that would violate water quality standards, including turbidity." Id. NYSDEC concluded that "[a]bsent detailed information for each wetland crossing that demonstrates Constitution properly avoided, minimized and mitigated impacts to wetland and adjacent areas, the Application does not supply the Department with adequate information to assure that streams and water bodies will not be subject to discharges that do not comply with applicable water quality standards." Id. at 13-14.

Like Constitution, ACP has failed to provide sufficient information to demonstrate compliance with state water quality standards such that DEQ should require ACP to withdraw its application due to incompleteness or, alternatively, deny the request for certification for failure to provide adequate information.

B. Northern Access Pipeline

On April 7, 2017, NYSDEC sent a letter to National Fuel Gas Supply Corporation and Empire Pipeline, Inc. (collectively, "NFG") regarding their application to obtain a Clean Water Act section 401 water quality certification for the Northern Access Pipeline (as well as Protection of Waters and Freshwater Wetlands permits). That project included a new 97-mile, 24-inch gas pipeline that would cross 192 State-regulated streams and impact a total of 73.4 acres of federal and State wetlands. NYSDEC noted that the project "would necessarily impact these waterbodies and jeopardize their best usages that New York's water quality standards were enacted to protect." NYSDEC Northern Access Letter at 2, attached as **Exhibit 20**.

NYSDEC denied the request for water quality certification because the application failed to demonstrate compliance with state water quality standards. Specifically, NYSDEC "reviewed the impacts directly associated with the Project proposal in terms of water body water quality, stream bed and bank disturbances, and wetlands and wetland adjacent area disturbances," noting that because of the identified impacts from Project construction and operation (including cumulative effects[11]), the application failed to demonstrate compliance with state water quality standards. Id. at 3.

During its review of the application, NYSDEC directed NFG to demonstrate compliance with state water quality standards "by providing site-specific information for each of the streams impacted by the Project." Id. at 5. [12] Due to "the potential for significant habitat damage, destruction and permanent loss from pipeline construction," NYSDEC required a trenchless feasibility analysis of streams crossed by the pipeline. Id. at 5. The applicant concluded that trenchless crossing methods were not feasible with respect to 184 of the stream crossings. NYSDEC noted that "impacts and damage to water resources will necessarily occur where trenchless crossing methods are not employed." Id. at 5.

Specifically, NYSDEC requested a feasibility analysis "aimed to assess the possibility of installing the Project pipeline using trenchless technology at 55 selected crossings," focusing on more environmentally sensitive or significant waterbodies. Id. at 5-6. Even after NYSDEC further narrowed the scope of review for trenchless feasibility analysis to 13 priority streams, NFG "concluded it would utilize trenchless methods at only five of the 13 priority streams." Id. at 6. NFG's analysis comprised sequential reviews encompassing 1) physical/technical parameters, 2) environmental constraints, and 3) technical design parameters. Id.

[11] See Id. at 4 ("Crossing multiple streams and freshwater wetlands within a watershed or basin, including degrading riparian buffers, causes a negative cumulative effect on water quality to that watershed or basin.")

[12] See also Id. ("NYSDEC informed NFG that *all* stream crossings must be evaluated for environmental impacts…." (emphasis added)).

NFG intended that the remaining 184 streams (including eight of the 13 priority streams) be crossed using dry crossings, permanent culverts, or temporary bridges. NYSDEC noted that the dry crossings "will permanently impair aquatic habitat and generate turbidity that will impair the best usages of these waterbodies," and that the dry crossing of streams designated as Trout or Trout Spawning will "negatively affect riparian and in-stream conditions necessary to provide habitat to support trout presence and preserve water quality." Id. at 6-7. NYSDEC noted the loss of and conversion of riparian cover types would increase the input of turbid water; construction in the ROW would destabilize stream banks and increase risks for further erosion and bank instability (which would compromise water quality); and excavation across stream beds would remove in-stream habitat forms that create pools and pockets as habitat for trout and other aquatic organisms, as well as destabilize stream beds and make them more susceptible to erosion (affecting both immediate habit in the ROW and downstream water quality and habitat). Id. at 7.

NYSDEC also stated that in its "recent experiences with constructing large scale natural gas pipelines across New York State, involving multiple water body crossings in multiple watersheds or basins, … even with stringent water quality protection conditions, violations of water quality standards at this scale occur causing significant degradation of water quality in stream after stream along a constructed ROW." Id.

NYSDEC noted that, more broadly, "riparian habitat surrounding streams within the Project ROW will be permanently impacted by construction activities involving excavation and burial of the pipeline and any needed grading of local topography by heavy construction equipment." Id. When crossing streams, "construction in the wet" would lead to adverse water quality impacts, while construction in dewatered conditions would "not only physically disturb stream beds via excavation…, but also dry and desiccate any stream habitat between the excavated centerline and the perimeter of the dewatered ROW." Id. NYSDEC concluded that these construction techniques would case "significant damage or destruction to both riparian and in-stream habitat," both during construction and for a period of time post-construction. Id.[13]

NYSDEC identified significant impacts to riparian and stream habitat during construction (with resulting adverse impacts to water quality):

- The loss of riparian habitat for open-dry trench stream crossings "is a negative impact to water quality and stream habitat to the extent that the riparian area contributes

[13] See also id. at 7-8 ("The narrative standard for *turbidity* will be violated when in-water construction occurs and at certain times during the post-construction phase. These water quality impacts and changes in riparian and stream habitat will degrade the affected waters which will then be unable to support best usages. This is particularly the case with a trout standard or rare species designation where the water body impact degrades the water body's capacity to guarantee the survival and propagation of balanced, indigenous populations of shellfish, fish and wildlife that rely upon those waters." (footnote omitted)).

unfiltered, sediment laden, turbid water to the water body through bank erosion." Id. at 8.

- NYSDEC performed a desktop aerial analysis of all open-dry trench stream crossings that aggregate the area of impacts within the riparian habitat zone. The agency noted that "fully in-kind vegetation, including mature trees, will not be replanted nor ever be allowed to fully regrow to pre-construction conditions," such that riparian habitat values will "not return to previous capacity to protect each water body from erosion and resulting sedimentation and turbidity." Id.

- NYSDEC noted that "[u]pon preparing a stream for dewatering, various construction steps, such as the excavation of intake pits and the placement of barriers, will be conducted within flowing water that will cause a significant visible contrast and exceedance of the turbidity water quality standard." Id. Moreover, at the completion of construction, work would again occur within flowing water, and installation and removal of temporary bridges and stream bank stabilization efforts would also cause violations of the turbidity water quality standard. Id.

- For streams with flowing water at the time of construction of open-dry trench stream crossings, because of dewatering and subsequent drying, "any aquatic organisms within this [disturbed] area will be lost" and, consequently, "the disturbed stream bed is considered a 100% loss of stream habitat." Id. at 9. Moreover, "[d]ue to the increased turbidity caused during construction, the best usages of these waters for aquatic species and maintenance of these species' habitat will be lost until the affected water bodies recover and stabilize." Id.

NYSDEC also identified post-construction impacts to streams:

- The permanent loss of native, established riparian vegetation "will have a negative effect on water quality and stream ecological health for the full service life of the pipeline." Id.

- The degraded vegetative buffer (including the removal of established treed areas) "will cause bank erosion, resulting in sedimentation and turbidity in the water body," which in turn will "degrade the best uses of the water body for aquatic organisms." Id.

- Although disturbed in-stream areas will be rewatered and stabilized following construction, "the hydrogeomorphology of these streams is extremely complicated and disturbance to the bed and banks of the streams will result in instability and lead

to future vertical or lateral erosion, which will result in additional turbidity and impairment of water quality." Id. at 10.

NYSDEC also addressed impacts to wetlands, noting that they "preserv[e] water quality through their hydrologic absorption and storage capacity, … protect subsurface water resources, recharge groundwater, and cleanse surface runoff to water bodies." Id. The agency concluded that disturbances to wetlands "due to construction and ROW maintenance will have permanent and temporary impacts on New York's surface and subsurface water quality by decreasing wetland functions and benefits directly associated with protecting and preserving the integrity of water chemistry and biology." Id. at 11. For example, the pipeline companies' "activities – particularly removing and *changing vegetation* – will alter the wetlands abilities to hold and release flood waters, and will change the ability of those disturbed areas to provide pollution treatment and water quality benefits." Id. (emphasis added).

In concluding that NFG failed to demonstrate that the Project disturbances would adequately avoid or minimize effects on wetlands benefits as they relate state water quality standards, NYSDEC noted the following:

- NFG failed to demonstrate "that there are no practicable alternatives to avoid all disturbance to wetlands impacts due to construction of the Project, and post-construction ROW maintenance." Id. at 12.

- NFG failed to demonstrate "that it will adequately minimize disturbances to wetlands so as to assure that there will be no adverse impacts to wetlands themselves or to State water quality." Id. NYSEC emphasized that NFG "is *not proposing to replace woody plants* located in and near forested and shrub wetlands that its Project will impact." Id. (emphasis added).

- By failing to minimize wetland impacts, NFG failed to "assure that water quality standards will be met in water bodies associated with these impacted wetlands." Id.

- Finally, NYSDEC found that mitigation of impacts to regulated wetlands did not meet state regulatory provisions because "[t]he area proposed by NFG to mitigate these collective impacts is not in the same basin as that containing the majority of these impacts, much less in the same subwatershed where most of the impacts occur." Id.

NYSDEC concluded that the Project's impacts "will cause turbidity in such a manner to that [sic] impedes the best usages of many waterbodies, particularly those with a trout standard or rare species, by degrading the survival and propagation of balanced, indigenous populations of shellfish, fish and wildlife that rely upon these waters." Id. at 13.

All of those same water quality impacts would occur with the construction and operation of the Atlantic Coast Pipeline and ACP has likewise failed to demonstrate that it has adequately avoided, minimized, and mitigated the impacts of the Pipeline. DEQ thus cannot issue a Section 401 certification based on the existing information.

C. PennEast Pipeline

The PennEast Pipeline Project would include 116 miles of new, 36 inch-diameter greenfield pipeline (37.7 miles in New Jersey and 78.3 miles in Pennsylvania). In the New Jersey Department of Environmental Protection's (NJDEP) amended deficiency letter, dated April 28, 2017, the agency identified information missing from PennEast Pipeline Company's application for a freshwater wetlands individual permit. The absence of the following information rendered the permit application deficient:

- Verification of "the accuracy of the wetlands delineation, transition areas, threatened and endangered species habitat, archaeological resources, and best practices to cross particular streams." *See* PennEast Letter, attached as **Exhibit 21**, at ¶ 1.

- For the length of the proposed pipeline alignment: a proposed delineation of all freshwater wetlands, transition areas, and State open waters on the site, or portion thereof, that is the subject of the application (Id. at ¶ 4.i); soil borings and/or other physical indicators of the presence or absence of freshwater wetlands, transition areas, and/or State open waters (Id. at ¶ 4.ii); delineating report information, including data sheets and/or other materials explaining and supporting the delineation for all wetlands within the ROW and 150 feet from each side of the ROW (Id. at ¶ 4.iii); the total area of wetlands and State open waters on the site before and after the regulated activity is performed (Id. at ¶ 4.iv); and copies of a site plan or subdivision map showing a complete delineation of the wetlands boundary (Id. at ¶ 4.v).

- An amended archaeological survey report investigating the entire proposed alignment for the portion of the pipeline located in New Jersey. Id. at ¶ 6.

On June 28, 2017, NJDEP denied PennEast's request for additional time and deemed the application administratively closed. Like the NJDEP did for PennEast, DEQ must reject ACP's request for Section 401 certification due to its failure to provide adequate information.

In conclusion, DEQ's haste to accommodate the Pipeline developer's preferred schedule has caused it to issue a draft Certification without collecting adequate information to provide a reasonable assurance that the Project will not lead to violations of Virginia's water quality standards. DEQ thus must either deny ACP's Certification request or demand that it withdraw its

application, and the agency may not issue a new decision until it has comprehensively evaluated the impacts of the Pipeline on water quality. The people of Virginia deserve a full and fair assessment of this damaging, unnecessary project on their water resources.

Benjamin A. Luckett
Appalachian Mountain Advocates
P.O. Box 507
Lewisburg, WV 24901
(304) 645-0125
bluckett@appalmad.org

Elizabeth F. Benson
Sierra Club
2101 Webster Street, Ste. 1300
Oakland, CA 94612
(415) 977-5723
elly.benson@sierraclub.org

August 22, 2017