Southern Environmental Law Center

Appalachian Mountain Advocates

June 15, 2018

Via email to:

Virginia State Water Control Board
c/o Virginia Department of Environmental Quality
1111 East Main Street
Richmond, VA 23219
NWP12InfoOnMVP@deq.virginia.gov
NWP12InfoOnACP@deq.virginia.gov

Re: Sufficiency of Army Corps of Engineer's Nationwide Permit 12 as applied to Atlantic Coast Pipeline and Mountain Valley Pipeline

Dear Chairman Dunn and Members of the Virginia State Water Control Board:

Thank you for the opportunity to comment on the sufficiency of Nationwide Permit 12 to protect Virginia's rivers, streams, and wetlands from harm caused by the construction of the Atlantic Coast Pipeline ("ACP") and the Mountain Valley Pipeline ("MVP"). Appalachian Mountain Advocates and the Southern Environmental Law Center jointly submit these comments on behalf of the organizations identified at the close of this letter and in an attachment providing names, addresses, and telephone numbers for each.[1]

The Board initiated this comment period at a critically important time. In May, pipeline construction along the MVP route resulted in landslides, a paved roadway buried in mud, and streams full of sediment. We have attached photographs of these mudslides, sediment-laden streams, and failures of erosion and sediment control measures.[2] On May 20, a DEQ spokesperson told The Roanoke Times that "none of the mudflow reached

[1] **Attachment A**.

[2] *See* **Attachment B** (compiling photographic documentation of MVP erosion and sediment problems in May and June 2018).

streams[.]"[3] However, on that same day, a DEQ employee observed a creek off Brick Church Road in Franklin County where there "did not appear to be any sediment measures installed and the creek was full of sediment . . . so much so, that water did not appear to be flowing."[4] Even as early as Friday, May 18, 2018, DEQ knew that sediment from the MVP right of way had entered Little Creek, yet its public message did not reflect those facts.[5] In the following days, DEQ also became aware, through citizen reports and photos, of sediment contaminating water supply springs where the pipeline crossed spring recharge areas.[6]

Meanwhile, in South Carolina, Dominion Energy, one of the primary owners of the ACP, caused massive erosion and sedimentation of streams when it constructed a pipeline under a Nationwide Permit 12 authorization earlier this year. Its improper implementation and failure of its erosion control measures and its failure to implement required restoration measures in a timely fashion caused a drinking water utility to shut down operations, among a host of adverse environmental impacts. A representative of Upstate Forever, a South Carolina conservation group, summarized the problems associated with Dominion's pipeline in a letter, along with photographs of failed erosion and sediment control measures and streams buried in sediment.[7]

Dominion has just begun construction of the ACP in West Virginia, notably and concerningly without coverage from a valid incidental take statement from the U.S. Fish and Wildlife Service, upon which its FERC Certificate and Nationwide Permit 12 authorization, among other permits, depend. Even though construction on the right-of-way has only been underway for a short time, Atlantic's reports to FERC indicate that

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[3] *See* Laurence Hammack, Construction halted at Mountain Valley Pipeline work site following severe erosion in Franklin County, The Roanoke Times (May 20, 2018), included as **Attachment C**.

[4] Email from Elizabeth Abe, Virginia DEQ, to Matthew Grant, Virginia DEQ, Re: sediment/mud in stream Teels Creek MVP pipeline or Summit View (May 21, 2018) (relating viewing of creek on day prior), included as **Attachment D**.

[5] Email from Jerome Brooks, Virginia DEQ, to John McCutcheon, James Golden, and Melanie Davenport, Virginia DEQ, Re: Sediment Release in Franklin (May 18, 2018), included as **Attachment E**.

[6] *See* emails from William Orndorff, Virginia Department of Conservation and Recreation, to DEQ officials regarding impacts to springs, included as **Attachment F**.

[7] Letter from Shelley Hudson Robbins, Energy and State Policy Director, Upstate Forever, to Virginia State Water Control Board, Re: Dominion Energy's failure to prevent pipeline construction runoff damage in South Carolina and implications for Virginia (June 15, 2018), included as **Attachment G**.

sediment and erosion problems have already occurred. On June 3, 2018, on the ACP in Upshur County, West Virginia, "slope breakers on the upslope side of waterbody SUPA009 [Buckhannon River] failed", and "[h]eavy silt laden mud . . . deposited sediment along the banks and in the waterbody."[8] The Buckhannon River is designated by West Virginia as trout waters and public waters (for human consumption). On June 3, 2018, also in Upshur County, silt fences at two locations were overwhelmed and "silt-laden water, sediment, and rock material" traveled off the ACP right-of-way.[9] On June 4, at another location, the "super silt fence was overwhelmed" and sediment "traveled approximately 100 feet beyond the [limit of disturbance] before entering a pond . . . that drains into a stream."[10]

The Board should not count on other agencies within Governor Northam's administration to protect Virginia waters. We are not aware that DEQ took enforcement action against MVP for the recent problems with that project, but both the U.S. Forest Service and West Virginia did. The Forest Service held MVP in noncompliance for failing to implement erosion and sediment control measures along miles of road and for causing deep rutting and runoff issues, which the company failed to rectify after repeated warnings.[11] The West Virginia Department of Environmental Protection also issued notices of violation against MVP for sediment and runoff violations.[12]

And even before the authorization of the ACP and MVP under Nationwide Permit 12, another Virginia agency was contemplating and, in many cases, granting waivers to important Time of Year Restrictions ("TOYRs") put in place to protect water quality. For example, Atlantic sought to undermine the stream crossing mitigation measures imposed

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[8] Atlantic Coast Pipeline and Supply Header Project, Environmental Compliance Monitoring Program Weekly Summary Report For the Period: May 28 through June 3, 2018, at p. 4, included as **Attachment H**.

[9] Letter from Angela M. Woolard, Gas Transmission Certificate Consultant, Dominion Energy Transmission, Inc. to Kimberly D. Bose, Secretary, FERC, Re: Supplemental Information – Weekly Status Report: 6/2/2018 – 6/8/2018, at p. 7 (June 15, 2018) (enclosing status report), included as **Attachment I**.

[10] *Id*. at 8.

[11] Noncompliance report issued by Transcon, USFS compliance monitor for the Jefferson National Forest, included as **Attachment J**.

[12] Laurence Hammock, Regulators cite Mountain Valley Pipeline a second time for erosion problems, The Roanoke Times (June 7, 2018), included as **Attachment K**; State of West Virginia Department of Environmental Protection, Environmental Enforcement, Notice of Violation, Violation No. W18-52-021-RDD (Apr. 3, 2018), included as **Attachment L**.

in the Final EIS by requesting waivers from the TOYRs in over sixty Virginia rivers and streams. These restrictions are intended to protect fisheries resources by preventing in-stream construction during sensitive periods, including spawning.[13] However, for many of the waters for which Atlantic requested waivers, the Virginia Department of Game and Inland Fisheries ("DGIF"), with no public input, gave permission to Atlantic to conduct in-stream construction in these waters during all or part of the applicable restricted periods.

Not only did DGIF grant many of Atlantic's waivers, it wholly rescinded the trout restrictions for a number of Virginia trout streams, giving Atlantic far more leeway than it had even asked for. On the Jackson River, overlapping rainbow, brook, and brown trout restrictions protect these important resources from October 1 through June 30. However, DGIF offered "leniency" to accommodate Atlantic's preferences. In another instance, where DGIF denied permission to do in-stream work in the Cowpasture River during the James Spinymussel TOYR, it inexplicably rescinded the trout TOYR except for the period it overlapped with the James Spinymussel TOYR—effectively eliminating the trout restriction from March 15 until May 15. For six Cowpasture River tributaries to be crossed at distances of 0.1 to 1.2 miles from the Cowpasture River crossing, noting that "[t]his work is upstream of waters known to support federally endangered James spinymussels[,]" DGIF offered to allow in-stream construction during the "beginning and/or end" of the James Spinymussel restricted period.

The streams for which these waivers were granted include trout streams, threatened and endangered species waters, exceptional waters such as the Cowpasture River, and other sensitive waterbodies. On stream after stream, VDGIF offered "leniency" from, or rescinded entirely, the very restrictions that the agency set, and FERC relied upon, to protect important Virginia aquatic resources. The ACP will cross more than 300 miles of Virginia's landscape, from Highland County to the Tidewater, and will cross 890 Virginia rivers and streams and hundreds of acres of wetlands along the way. The developer, Atlantic Coast Pipeline, LLC ("Atlantic") will clear thousands of acres of forest and, in the western portion of the state, carve a swathe up and down steep

[13] *See* Letter from Richard B. Gangle, Environmental Manager, Atlantic Coast Pipeline, LLC to Amy Ewing, Virginia Department of Game and Inland Fisheries (Sept. 8, 2017), included as **Attachment M**; Email from Amy Ewing, Virginia Department of Game and Inland Fisheries, to Sara Throndson, ERM (on behalf of Atlantic), Re: ESSLog# 34825_20151353_AtlanticCoastPipeline_DGIF_AME20180108 (Jan. 8, 2018), attaching spreadsheet with VDGIF comments on variance requests, together included as **Attachment N**.

mountains and through karst topography in the central Appalachian highlands. These TOYRs and other mitigation measures are essential to protect Virginia water quality if this project goes forward.

The water quality impacts of the Mountain Valley Pipeline will likewise be immense. That pipeline and its appurtenances will traverse over 160 miles of the Commonwealth, much of which will be through challenging steep and highly-erodible slopes and sensitive karst terrain. Construction of the project will require 385 stream crossings and 144 wetland crossings in Virginia. As demonstrated by the above-discussed extreme sedimentation events that have already resulted from construction on the MVP, that project will also have a significant adverse effect on the Commonwealth's water quality.

The Board's concerns about the harm to water quality caused by pipeline construction are well-founded, and it is not too late to protect Virginia's waters. As the examples from the MVP and ACP construction already underway and pipeline construction in South Carolina make clear, Nationwide Permit 12 will not protect Virginia rivers, streams, and wetlands from this harm. To be sure, some of these problems have almost certainly resulted from activities outside of the Corps' permitting jurisdiction, but just as surely, many have not. Fortunately, the Board has taken the timely and foresighted step of initiating an additional review of "whether [Nationwide Permit] 12 is sufficiently protective of the Commonwealth's aquatic resources." The Board has the opportunity now to take additional steps to protect Virginia's most sensitive waterways, but if construction continues, it will soon be burdened instead with a litany of serious water quality problems. The Board should not relinquish this opportunity or its authority to protect water quality to pressure from DEQ, politicians, or pipeline developers. With these comments, our clients join the many Virginians who, looking at the available facts, conclude that Nationwide Permit 12 is **not** sufficiently protective of streams, wetlands, and water quality in Virginia with respect to these two destructive pipeline projects.

It is very telling that the Board, having certified Nationwide Permit 12 and acceded to its use for these environmentally damaging projects, in the face of abundant evidence regarding the projects' greater than minimal (indeed, significant) adverse effects on water quality, now ask the public for technical information relating to specific stream and wetland crossings. This is the very kind of information that the Corps failed to require that Atlantic and Mountain Valley provide; the very information that, in its absence, should have prevented the Board from certifying (as it asserts that it did) that the permitting of the ACP's and MVP's numerous stream and wetland crossings under

Nationwide Permit 12 would not threaten water quality in Virginia. The Board must seize this opportunity to change the harmful direction of these projects.

For the reasons set forth in these comments and other public comments, the Board should invoke its authority, specifically reserved in its April 2017 Certification of the Corps' nationwide permits, to take the following actions:

1. Require individual crossing review for the most sensitive Virginia rivers, streams, and wetlands that will be crossed by the Atlantic Coast and Mountain Valley pipelines. At a minimum, this review must include:

    a. Waterways with special or exceptional characteristics like the James River, the Cowpasture River, the Jackson River, and Bottom Creek;

    b. Trout streams and rivers, like Townsend Draft;

    c. Impaired waters, like Back Creek (Augusta County) and Little Creek (Franklin County);

    d. Waterways with endangered and threatened species; and

    e. Waterways with multiple pipeline crossings on the main channel or tributaries, like the Calfpasture River and Bottom Creek.

    We have included an excerpt of Table B-1 for both ACP and MVP with highlights to identify specific crossings that meet these criteria for additional review.[14] This list is not exhaustive, and other waterways crossed by the pipeline likely meet these criteria as well.

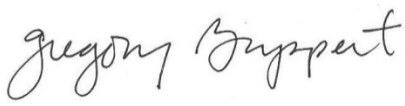
2. Insist on more complete and accurate information from Atlantic and Mountain Valley about proposed crossing designs for these sensitive waterways, including all mitigation measures that will be used and any variances from existing standards (such as time-of-year restrictions) that have been requested; and

3. Suspend all pipeline construction activity in Virginia until this review is complete, the Board has evaluated additional mitigation measures to protect water quality, and the Board has determined that it has reasonable assurance that water quality can be protected.

Thank you for your attention to this important issue.

[14] **Attachment O**.

Sincerely,



Gregory Buppert
Jonathan Gendzier
Southern Environmental Law Center

On behalf of Augusta County Alliance, Cowpasture River Preservation Association, Defenders of Wildlife, Friends of Buckingham, Highlanders for Responsible Development, Jackson River Preservation Association, Potomac Riverkeeper, Inc., Shenandoah Riverkeeper, Shenandoah Valley Battlefields Foundation, Shenandoah Valley Network, and Virginia Wilderness Committee

Benjamin Luckett
Appalachian Mountain Advocates

On behalf of Appalachian Voices, Chesapeake Climate Action Network, Sierra Club, and Wild Virginia

COMMENTS

I. The State Water Control Board Has the Authority to Conduct Individual Reviews of Stream Crossings for Atlantic Coast and Mountain Valley Pipelines.

The Board specifically reserved its authority to conduct an individual review of stream crossings in its Section 401 Certification for the U.S. Army Corps of Engineers' Nationwide Permits. On April 7, 2017, the Board and DEQ provided a Section 401 Water Quality Certification for all 2017 nationwide permits proposed by the Corps.[15] That certification did not address the Atlantic Coast Pipeline, the Mountain Valley Pipeline, or any particular project, but rather provided a general certification of 52 nationwide permits from the Corps, including Nationwide Permit 12 for "utility line activities."

Importantly, the April 2017 Certification included a reservation of Virginia's right to require an individual certification for any particular project that may fall within nationwide permit coverage but require special consideration by the state:

> The Commonwealth reserves its 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 NWPs when it determines on a case-by-case basis that concerns for water quality and the aquatic environment so indicate.[16]

This condition of the April 2017 Certification does not require additional procedure to be brought into effect—any project that the Corps covers under Nationwide Permit 12 is

[15] James Golden, DEQ, Letter to Col. Jason Kelly, Army Corps of Engineers (Apr. 7, 2017) (the "April 2017 Certification").

[16] *Id.* at 2.

subject to the "case-by-case" review by the Board to determine if the terms of the nationwide permit are adequate to protect water quality.

The language of the reservation in the April 12 Certification is not ambiguous. Courts interpret permits as contracts—"if 'the language is plain and capable of legal construction, the language alone must determine' the permit's meaning."[17] To put it bluntly, the certification means what it says: the Board can require an individual permit for any project that is eligible for coverage under Nationwide Permit 12. The April 2017 Certification put all potentially affected parties on notice that a project eligible for Nationwide Permit 12 coverage could require additional, individual review at the state level. Neither Atlantic Coast Pipeline, LLC, nor Mountain Valley Pipeline, LLC challenged the state agencies' reservation of this authority when the certification issued even though they had already sought Nationwide Permit 12 coverage for the Atlantic Coast and Mountain Valley Pipelines.

On December 26, 2017, the Norfolk district of the Corps notified Mountain Valley that it had approved its pipeline for coverage under Nationwide Permit 12.[18] On February 9, 2018, the Norfolk District notified Atlantic that it had approved its pipeline for

[17] *Piney Run Pres. Ass'n v. Cty. Comm'rs of Carroll Cty., Md.*, 268 F.3d 255, 270 (4th Cir. 2001)(quoting *FDIC v. Prince George Corp.*, 58 F.3d 1041, 1046 (4th Cir. 1995)).

[18] Letter from William T. Walker, Chief, Norfolk Dist. Regulatory Branch, Letter to Robert Cooper, Mountain Valley Pipeline, LLC (Dec. 26, 2017), included as **Attachment P**.

coverage under Nationwide Permit 12.[19] As a result of the Corps' letters, Virginia's Section 401 Water Quality Certification for Nationwide Permit 12, including the reservation to conduct an individual project review, attached to the projects. Under the plain terms of the permit—terms which no party objected to—the Board has the authority to determine that it will "require an individual . . . certificate or otherwise take action" for the Atlantic Coast and Mountain Valley Pipelines to protect water quality.

Importantly, the Board has not waived its authority to require an individual permit for the Pipelines. We believe that the Board may have been advised that Section 401's one-year waiver period has already expired. However, Atlantic agreed in September 2016 that the waiver period had not commenced. In a letter to James Golden at DEQ, Atlantic wrote: "We acknowledge that the time period for DEQ to conduct any necessary reviews will not start until the application is deemed complete by the Corps."[20] The Corps did not determine that Atlantic's application was complete until another year had passed, in September 2017. Likewise, Mountain Valley's revised application to the Corps for coverage under NWP 12 was not submitted until September 2017.

There is no dispute that the Board timely acted when it issued the general certification of the Corps' 2017 nationwide permits in April 2017.[21] However, following the April 2017 Certification, it was not known whether the Corps would, in fact,

[19] Letter from William T. Walker, Chief, Norfolk Dist. Regulatory Branch, Letter to Leslie Hartz, Atlantic Coast Pipeline, LLC (Feb. 9, 2018).

[20] Letter from Robert Bisha, Technical Advisor, Atlantic Coast Pipeline, LLC, to James Golden, DEQ (Sept. 13, 2016), included as **Attachment Q**.

[21] April 2017 Certification, *supra* note 15.

authorize coverage under Nationwide Permit 12 for the Mountain Valley and Atlantic Coast Pipelines. The Corps did not ultimately take that step until December 26, 2017 for Mountain Valley, and February 9, 2018 for Atlantic Coast, at which point the Board again acted in a timely manner when its general certification of all nationwide permits attached to the Corps' coverage decision for the project. Now the Board must invoke its reservation of authority in the April 2017 Certification—authority that Mountain Valley and Atlantic were made aware of and accepted more than a year ago—to require additional, individual reviews for the Mountain Valley and Atlantic Coast Pipelines to protect water quality.

II. Review of the ACP and MVP's Individual Crossings Is Likely to Be Required Because Those Pipelines Are Ineligible for NWP 12 and Will Likely Need to Obtain Individual Permits.

To date, DEQ and the Board have justified the decision not to require individual 401 certifications for the Atlantic Coast Pipeline and Mountain Valley Pipeline on the ground that the projects were going to be authorized by the U.S. Army Corps under Nationwide Permit 12 ("NWP 12"). However, pursuant to the terms of NWP 12 and the Corps' own regulations, neither project is actually eligible for coverage under NWP 12. Therefore, the Army Corps will likely have to require individual 404 permits for both pipelines. If the Corps has to issue individual 404 permits, the state will have a corresponding obligation to require individual 401 certifications for each pipeline—regardless of the any Board action in response to this comment period.

Current litigation against the Corps' authorization of the MVP under NWP 12, and the Corps' voluntary withdrawal of NWP 12 coverage for certain of the MVP's crossings

in response to that litigation,[22] demonstrates that the project is not properly covered under that permit's terms, but instead requires an individual permit under Section 404.[23] The Corps' authorization of the ACP under NWP 12 suffers the same flaws and the project will also likely be required to obtain an individual permit. It is thus prudent for the Board to invoke their reserved authority to undertake individualized review of the stream crossings for both projects now, and to suspend all work pursuant to NWP 12 while it conducts that review.

The pipelines are not eligible for coverage under NWP 12, and the Corps' action authorizing the projects thereunder is likely to be vacated (either voluntarily by the Corps or as a result of litigation), because certain of the projects' crossings cannot comply with a condition of NWP 12 that was added to the permit as part of West Virginia's Section 401 Certification.[24] Under the Corps' regulations and the terms of NWP 12, if one portion of a project is ineligible for coverage under the NWP, the rest of the project may not proceed under the NWP. Rather, the entire project must be authorized under an individual permit. Thus, if the pipelines' NWP 12 authorizations in West Virginia are invalidated, the authorizations for the Virginia portions are likewise invalid.

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[22] Letter from William J. Miller, Lieutenant Colonel, Huntington District, to Shawn Posey, Mountain Valley Pipeline, LLC (May 22, 2018), included as **Attachment R**.

[23] *Sierra Club v. U.S. Army Corps of Eng'rs*, No. 18-1173 (4th Circuit).

[24] As described in detail elsewhere in these comments, authorization of these pipelines under NWP 12 was also improper because the adverse environmental effects of the authorized crossings will not be minimal, either individually or in combination. *See* 33 U.S.C. § 1344(e).

A. *Certain of the MVP and ACP's Crossings Violate the Terms of NWP 12.*

The West Virginia Department of Environmental Protection ("WVDEP") certified NWP 12's reissuance under Section 401 on April 13, 2017, subject to certain conditions to protect water quality. Among them is Condition C:

> Individual stream crossings must be completed in a continuous, progressive manner and ***within 72 hours*** during seasonal normal or below normal stream flow conditions. Crossings on the Ohio River, Kanawha River, New River, Monongahela River, and the Little Kanawha River, below the confluence with the Hughes River, are exempt from the 72-hour requirements. All stream activities shall be completed as rapidly as possible.

Condition C's language is unambiguous: "Individual stream crossings ***must*** be completed ... within 72 hours." When used in the legal context, "must" is a word of "unmistakable mandatory character."[25] The Corps incorporated that condition into NWP 12 for West Virginia pursuant to 33 U.S.C. §1341(d) and 33 C.F.R. §330.4(c)(2).[26] Accordingly, NWP 12 in West Virginia includes an express condition limiting in-stream construction to a 72-hour window, except in certain streams not affected by the pipelines.

Documents in the Corps records reveal that neither Mountain Valley nor Atlantic can comply with West Virginia's 72-hour limit on in-stream construction, such that both pipelines are ineligible for coverage under NWP 12 in West Virginia. For instance, an

[25] *Hewitt v. Helms*, 459 U.S. 460, 471 (1983).

[26] Corps of Engineers Regulatory Program Reissuance and Issuance of Nationwide Permits With West Virginia Department of Environmental Protection 401 Water Quality Certification (May 17, 2017) at 20, https://www.lrh.usace.army.mil/Portals/38/Users/007/87/1287/20170512%20NWP%202017%20LRH%20PN%20WV-WQC-2.pdf?ver=2017-06-01-145846-977.

email exchange with the Corps makes clear that Mountain Valley cannot comply with Condition C because the crossings of the Elk, Gauley, Greenbrier, and Meadow Rivers will not be completed within 72 hours.[27] The Corps solicited an "estimate of time required for construction of crossing the Gauley, Elk, Greenbrier and Meadow River."[28] Mountain Valley responded that:

> Overall, we are estimating that the entire construction process associated with the crossings of the Elk, Gauley, Greenbrier, and Meadow River crossings will take **a total of 4-6 weeks to complete, 1-3 weeks for each side of the crossings**. This estimation is based on the river size, half-width construction, mobilizing to each river side, staging equipment, pipe welding/bending/placing, installing the portadam[29] and other BMPs, and pre- and post-construction boulder survey/placement technique.
>
> ... **Actual in stream disturbance associated with installing the portadam will take approximately 2-3 working days. Once the structure is properly installed, the work area is pumped dry, and trench excavation can begin.**[30]

In other words, Mountain Valley could use its entire 72-hour window in those rivers just to install the Portadam on one side of the river—with stream-trenching, pipe-laying, and riverbed-reclamation occurring thereafter—before repeating the process on the other side. The upshot is that if it takes 2-3 days just to install the Portadam on one side of the river, it is impossible for Mountain Valley to complete crossings of the Elk, Gauley,

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[27] Email exchange between Christopher Carson, Project Manager, Huntington District, Army Corps of Engineers and Matthew Hoover, EQT (Dec. 18 and Dec. 20, 2017), included as **Attachment S**.

[28] *Id.* at 1.

[29] A "Portadam is an engineered, segmental or linked system that creates a dry workable area[,]" similar to a cofferdam.

[30] **Attachment S** at 2.

Greenbrier, and Meadow Rivers in the requisite 72 hours. As a result of Mountain Valley's inability to comply with Condition C, the Corps on May 22, 2018 indefinitely suspended NWP 12 coverage for those waterways.[31]

The ACP is likewise ineligible for coverage under NWP 12 in West Virginia because several of its river crossings will take more than 72 hours. At an August 13, 2015 pre-application meeting between representatives of Atlantic and staff from both the Huntington and Pittsburgh Corps Districts, representatives of Atlantic informed the Corps that it would be able to complete stream crossings using the cofferdam method on rivers less than 100-feet wide in less than 72 hours, leading to the conclusion that stream crossings greater than 100-feet wide would require more than 72 hours to complete.[32] In September 2015, Atlantic made clear in supplements to its preconstruction notification ("PCN") to both the Huntington and Pittsburgh Districts that its stream-crossing duration estimates were contingent on whether blasting would be required at a particular crossing.[33] In those same supplements, Atlantic again made clear that crossings of waterbodies greater than 100-feet wide would be completed in a timeframe somewhere between 48 hours and one year.[34]

[31] **Attachment R**.

[32] Sandra Williams, Environmental Projects Advisor, Atlantic Coast Pipeline, LLC, email to Steve Gibson et al., U.S. Army Corps of Engineers, included as **Attachment T** at 6.

[33] **Attachment U** at 17; **Attachment V** at 16.

[34] **Attachment U** at 37; **Attachment V** at 36.

In the Huntington District, the ACP project's crossing of the Greenbrier River (Single Complete Project ID No. WV AP-1-134) cannot be completed within 72 hours. The ACP will cross the Greenbrier River in Pocahontas County at or around Milepost ("MP") 76.6 of the project.[35] The width of that crossing is 177 feet at the centerline, and Atlantic has admitted that in-stream blasting will be required to complete the Greenbrier River crossing.[36] Because the Greenbrier River crossing is well over 100-feet wide, and because blasting will be required to complete it, Atlantic will be unable to complete that crossing in 72 hours. Atlantic has chosen the time-consuming cofferdam method to cross the Greenbrier River, making clear that Atlantic cannot divert flow in one-half of the Greenbrier, blast the riverbed, bury its pipeline, and repeat the process on the other side of the river within 72 hours. Accordingly, the ACP's Greenbrier River crossing is ineligible for authorization under NWP 12.

In the Pittsburgh District, the ACP's crossings of the West Fork River (Single Complete Project ID No. WV AP-1-019) and the Buckhannon River (Single Complete Project ID No. WV AP-1-079) cannot be completed within 72 hours. The ACP project will cross the West Fork River in Lewis County at or around MP 8.2 of the project.[37] The width of that crossing is 91 feet at the centerline.[38] The ACP project will cross the

[35] Final EIS for Atlantic Coast Pipeline, Appendix K at K-17.

[36] *Id.*

[37] *Id.* at K-2.

[38] *Id.*

Buckhannon River in Upshur County at or around MP 31.7.[39] The width of that crossing is 89 feet at the centerline.[40] Atlantic has admitted that in-stream blasting will be required to complete both the West Fork and Buckhannon River crossings.[41] Because the crossings of the West Fork and Buckhannon Rivers are nearly 100 feet wide, and because blasting will be required to complete them, Atlantic will be unable to complete them within 72 hours. That is made even more clear by the time-consuming cofferdam method that Atlantic has chosen to implement at those crossings. As stated above in regards to the MVP, it takes two to three days to install cofferdams on one-half of similarly sized rivers. It defies common sense to conclude that Atlantic would be able to install cofferdams on one-half of the West Fork and Buckhannon Rivers, blast trenches in the riverbeds, install the pipeline halfway across those rivers, backfill the trenches and restore the riverbeds, and repeat that process on the other side of the rivers within 72 hours. Accordingly, the ACP's crossings of the West Fork and Buckhannon Rivers are ineligible for coverage under NWP 12.

B. *Because some of the MVP and ACP's crossings are incompatible with the terms of NWP 12, none of the pipeline's crossings may be authorized under those permits.*

Because the crossings described above are ineligible for coverage under NWP, the entirety of both projects—including the portions in Virginia—are also ineligible and must instead be covered under an individual 404 permit. The Corps' regulations codified at 33

[39] *Id.* at K-5.

[40] *Id.*

[41] *Id*. at K-2, K-5.

C.F.R. § 330.6(d) address when an NWP may be combined with individual permits and when a project that requires an individual permit is prohibited from using an NWP for any portion of that project. The regulations provide that:

> portions of a larger project may proceed under the authority of the NWPs while the [District Engineer] evaluates an individual permit application for other portions of the same project, but ***only if*** the portions of the project qualifying for NWP authorization **would have independent utility and are able to function or meet their purpose independent of the total project. When the functioning or usefulness of a portion of the total project qualifying for an NWP is dependent on the remainder of the project, such that its construction and use would not be fully justified even if the Corps were to deny the individual permit, the NWP does not apply and all portions of the project must be evaluated as part of the individual permit process.**[42]

When the Corps promulgated that regulation, it explained its import this way: "In cases where the NWP activity cannot function independently or meet its purpose without the total project, the NWPs do not apply and all portions of the project requiring a Department of the Army permit must be evaluated as an individual permit."[43]

None of the ACP and MVP projects' thousands of waterbody crossings have independent utility. The usefulness of each crossing is entirely dependent on the rest of the crossings in order to fulfill the projects' express purpose to connect natural gas demand areas in Virginia and North Carolina with supply areas in the Appalachian region. Therefore, an individual stream crossing has no independent utility. Accordingly,

[42] 33 C.F.R. § 330.6(d) (emphasis added).

[43] Proposal to Amend Nationwide Permit Program Regulations and Issue, Reissue, and Modify Nationwide Permits, 56 Fed. Reg. 14,598, 14,599 (Apr. 10, 1991).

the projects' individual stream crossings cannot satisfy the plain meaning of the terms of 33 C.F.R. §330.6(d), and each pipeline must obtain an individual permit for its crossings.[44]

That is precisely the conclusion mandated by the Corps' addition of Note 2 in NWP 12 in 2017, and its explanation for that inclusion. Note 2 expressly provides that "[u]tility line activities must comply with 33 CFR 330.6(d)." In the preamble to the 2017 reissuance of the NWPs, including the addition of Note 2 to NWP 12, the Corps expounded on the meaning of Note 2.[45] The Corps received multiple comments "object[ing] to the proposed Note 2, stating that only the crossings of waters of the United States that do not qualify for NWP authorization should be evaluated through the individual permit process, allowing the remaining crossings to be authorized by NWP 12."[46] In response, the Corps rejected the commenters' contentions and made clear that:

> Note 2 is based on the NWP regulations that were published in the Federal Register on November 22, 1991 (56 FR 59110), and represent long-standing practices in the NWP program. Those regulations include the definition of "single and complete project" at 33 CFR 330.2(i) and the provision on combining NWPs with individual permits at 33 CFR 330.6(d). ...

[44] *See Crutchfield v. U.S. Army Corps of Eng'rs*, 154 F. Supp. 2d 878, 896 (E.D. Va. 2001).

[45] Issuance and Reissuance of Nationwide Permits, 82 Fed. Reg. 1860, 1888-89 (Jan. 6, 2017).

[46] *Id.* at 1888.

> If one or more crossings of waters of the United States for a proposed utility line do not qualify for authorization by NWP then the utility line would require an individual permit because of 33 CFR 330.6(d).[47]

The Corps also sought to reassure commenters concerned that Note 2 "would allow utility line proponents to break up large utility lines into separate projects and prevent them from being evaluated under the individual permit process."[48] The Corps responded this way: "The purpose of Note 2 is to prevent the situations the commenters opposing the proposed note are concerned about, to ensure that utility lines with one or more crossings that do not qualify for NWP authorization are evaluated under the individual permit process."[49]

The Corps' independent utility regulation at 33 C.F.R. §330.6(d), its interpretation of that regulation when it promulgated it, Note 2 to NWP 12, and the Corps' explanation of Note 2 in the preamble to the 2017 NWPs all point unmistakably to one conclusion: if even one waterbody crossing for a natural gas pipeline is ineligible for NWP 12, then that pipeline's proponent may not lawfully use NWP 12 for any of its stream crossings. As explained above, multiple of the ACP and MVP projects' river crossings in West Virginia are ineligible for NWP 12 because they cannot comply with the 72-hour limitation on in-stream work imposed by WVDEP's Condition C . Consequently, none of the projects' waterbody crossings are eligible for NWP 12 coverage, and both projects will be required to obtain individual permits pursuant to Section 404. To prevent potentially harmful in-

[47] *Id.*

[48] *Id.*

[49] *Id.*

stream work from occurring pursuant to a wrongfully issued NWP 12 authorization, DEQ and the Board should suspend all ACP and MVP in-stream work in Virginia and undertake a more detailed review of the impacts of the pipelines' water crossings such as will be required in the individual permit process.

III. The mitigation measures proposed to avoid or minimize impacts at stream and wetland crossings are inadequate to protect water quality.

Atlantic and Mountain Valley ask this Board to accept assurances that mitigation measures will prevent irreparable harm to Virginia's waters. There can be no doubt at this point that proposed mitigation measures fall far short of what is needed to protect water quality. Water quality violations are already taking place along the route of the Mountain Valley Pipeline. While commenters focus here on inadequate in-stream mitigation measures, the Board should bear in mind that impacts to water quality from the crossings themselves are only part of the problem.

As commenters have argued at length throughout both Section 401 review processes, the combined impact of crossings and upland construction activities greatly increases risks to water quality. DEQ and the Board cannot rationally consider the impacts of the crossings authorized by NWP 12 on Virginia's water quality in isolation. Rather, the impacts of the in-stream work at stream and wetland crossings must be considered in combination with the impacts of the upland disturbance that will occur to the receiving streams concurrently. The erosion and sediment control measures that Atlantic and Mountain Valley have assured the Board will mitigate impacts from upland disturbances have already proven insufficient, as discussed above in these comments. Allowing the

project to go forward despite insufficient mitigation measures for both upland activities and in-stream crossings is sure to lead to violations of water quality standards and irreparable harm to Virginia's waters.

The close relationship between these erosion and sedimentation issues to the crossing impacts is recognized by NWP 12 itself, which mandates that "[a]ppropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction."[50] Licensed professional engineer Kirk Bowers reviewed the erosion and sediment control plans associated with certain crossings for both the ACP and MVP and found that they did not meet standards of Virginia law and generally failed to provide "adequate assurance that water quality along and around th[e] route[s] will be maintained."[51] In particular, "[t]he severity of the slopes and the fragile geology throughout these regions make pipeline construction risky. Contributing to this risk is the lack of proven efficiency of erosion control measures on steep slopes and rocky terrain."[52] He generally found that the slope lengths and grades leading to the water crossings consistently exceeded the design specification of the chosen erosion and

[50] NWP 12, General Condition 12.

[51] Comments of Kirk Bowers to the Virginia State Water Control Board on behalf of the Virginia Chapter of the Sierra Club, regarding the Atlantic Coast Pipeline ("Bowers ACP Report") at 1, included as **Attachment W;** Comments of Kirk Bowers to the Virginia State Water Control Board on behalf of the Virginia Chapter of the Sierra Club, regarding the Mountain Valley Pipeline ("Bowers MVP Report") at 1, included as **Attachment X;**

[52] Bowers ACP report at 2; Bowers MVP Report at 2.

sediment control measures and that, in many cases, mitigation measures required by Virginia law were not adopted.[53]

The mitigation measures proposed by Atlantic and Mountain Valley for their wetland and stream crossings themselves are wholly inadequate to achieve protection of water quality in Virginia. Like all NWPs, Nationwide Permit 12 requires that projects cause no more than "minimal" adverse environmental impacts, in terms of both individual and cumulative impacts.[54] There can be no doubt that the Atlantic Coast and Mountain Valley

[53] *See, e.g.*, Bowers MVP Report, **Attachment X** at 2 ("Slope lengths and drainage area on north side of crossing exceeds engineering design specifications. There are no outlet structures shown at end of waterbars above stream crossing. As shown, runoff would be channelized down slope into super silt fence at toe of steep slopes resulting in damage to silt fence and sediment flowing into stream."); *id.* at 3 ("Compost filter socks are shown on both sides of crossing. Slope lengths and drainage area on both sides of crossing exceed engineering design specifications for filter socks despite use of water bars above filter socks. As shown, there are no outlet structures or slope drainage swales shown at end of waterbars above stream crossing. As designed, runoff is channelized down slope into compost filter socks at toe of steep slopes resulting in sediment flowing into stream. In heavy rain, the filters socks will fail as they will not have the capacity to contain erosion from graded areas above the crossing."); Bowers ACP Report, **Attachment W** at 3 ("Stream crossing structure for equipment is not shown on plans. Slopes on west side of stream crossing range from 30% to 58% for more than 400 feet above belted silt fence structure 137.11. Limits of filtering capacity will be exceeded at toe of slope. As the cumulative drainage area increases when descending the slope, runoff concentrates into rill erosion creating channels at perimeter. BMP's at toe of slope will be overwhelmed by larger volumes of stormwater during heavy rains. There is no sediment trapping measures shown at toe of slope to prevent sediment from flowing into the stream."); *id.* ("Construction plans show a stormwater diversion for a large drainage area running downslope above the corridor. No outlet structure or diversion pipe is shown on plans. As designed, runoff from the stormwater diversion berm will flow into the belted silt fence and the silt fence will fail due to large volumes of runoff. Compost filter socks are shown along edges of stream. Filtering capacity of filter socks will not be adequate to contain sediment flowing downhill on West side.").

[54] Issuance and Reissuance of Nationwide Permits, Final Rule, 82 Fed. Reg. 1860, 1884 (Jan. 6, 2017); 33 U.S.C. § 1344(e).

pipelines will have adverse effects far too great to be authorized under Nationwide Permit 12. Further, the Board's finding that construction of the ACP and MVP would not result in any lowering of water quality is contrary to voluminous evidence in the record. This evidence, including statements in the projects' Final Environmental Impact Statements, makes clear that, even if the mitigation measures were effective, *i.e.*, they function as designed and installed, the pipeline will still lead to significant and long-term increases in erosion and sedimentation of waters of the state, harming water quality and aquatic life.

Some of these adverse environmental effects are *directly contrary* to what is permitted by Nationwide Permit 12.[55] In addition to contributing to or causing water quality standard violations, these adverse effects will hamper waterbodies' ability to sustain existing uses.

In general, FERC, Atlantic, and Mountain Valley present generalized information about impacts without the specificity needed to assess mitigation of impacts where they actually occur: at specific crossings of streams and wetlands. Without adequate site-specific planning, the ability of the construction and mitigation methods proposed to protect state waters remains unknown. Critically, the Norfolk District's authorization letter for the ACP requires that Atlantic "perform all work . . . in compliance with . . . *typical* construction plans and cross section drawings provided by Environmental

[55] *See* Nationwide Permit 12, General Condition 3 ("Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.").

Resource Managers for the Atlantic Coast Pipeline[,]"[56] and gives Atlantic broad authority to determine site-specific plans as it constructs the pipeline, requiring only submission of "as-built plans" "[u]pon completion of the project[.]"[57] Likewise, the Corps' letter authorizing the MVP makes no mention at all of site-specific plans, but rather includes only a broad overview map of the project's crossings and requires the submission of "[a]s built plans" "[u]pon completion of the project[.]"[58]

Thus, in authorizing the projects under Nationwide Permit 12, the Corps failed to impose the very site-specific planning requirements that are critical to both the accurate assessment of adverse environmental effects *and* to their effective mitigation. On top of these defects, the Board risks ignoring the strong evidence that the Atlantic Coast and Mountain Valley Pipelines, as a whole and at individual crossings, will have a seriously negative effect on water quality in Virginia. The Board should impose additional conditions in order to protect water quality.

Two expert reports submitted by conservation groups in comments on North Carolina's Section 401 certification of the ACP project illuminate many of the issues surrounding mitigation of various types of stream and wetland crossings. Those reports' findings apply equally to the Mountain Valley Pipeline's crossings.

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[56] Letter from William T. Walker to Leslie Hartz, *supra* note 19 (emphasis added).

[57] *Id*. at Special Condition 9.

[58] Letter from William T. Walker to Robert Cooper, *supra* note 18.

The report of Becky Starr Elise Silvis, PE[59] describes the specific information that would be needed in order to justify the use of various crossing techniques and to assess whether adverse effects can actually be minimized. The Silvis Report states that, although dry crossings are preferable to wet crossings in terms of water quality impacts, "there are significant permanent impacts associated . . . including impacts to hydrologic conditions involving groundwater surface water connectivity, groundwater recharge, surface water quality degradation, sedimentation," the potential for leaks at a future time, and cumulative impacts.[60]

The Silvis Report also draws attention to a lack of specificity in construction plans and restoration plans. For example, "typical drawings" do not provide sufficient information to effectively restore a streambank or streambed.[61] A lack of measurable criteria to justify or determine certain decisions can lead to ad hoc decisionmaking not based on site-specific characteristics, and attendant harm to resources. For example, field determination of the type of temporary bridge installed at crossings "may foreseeably cause under sizing of structures or installation of inappropriate structures."[62]

[59] Letter from Becky Starr Elise Silvis, PE, to Jeff Poupart, Water Quality Section, North Carolina Department of Environmental Quality, Re: Comments on 401 Application for Atlantic Coast Pipeline (Nov. 19, 2017), included as **Attachment Y** and hereinafter referred to as the "Silvis Report").

[60] *Id*. at 1.

[61] *Id*. at 8.

[62] *Id*. at 11.

While we believe that the ACP and MVP projects are by their very nature sure to produce greater than minimal impacts, contrary to the requirements of Nationwide Permit 12, the Silvis Report points out specific deficiencies in the efforts to minimize impacts of crossings. The proposal to allow heavy construction vehicles to cross waterbodies and wetlands once prior to installation of mitigation measures "will cause permanent damage and unnecessary siltation and sedimentation."[63] This method has in fact recently been allowed by FERC for certain waterbodies in West Virginia *during* periods within the Time of Year Restrictions enacted to protect aquatic resources. This is not "minimization" of impacts and should not be permitted in Virginia. Site specific plans should be prepared for waterbody crossings within or adjacent to wetlands, as these areas are "particularly sensitive to hydrologic disturbance and require extra measures[,]" including pre-construction surveys.[64] Crossings of saturated soils should use low-weight equipment, and all equipment used should have low hours and be in good condition in order to reduce the potential for hydraulic fluids and petroleum product contamination of waterbodies and wetlands.[65]

[63] *Id*. at 13.

[64] *Id*. at 8, 13.

[65] *Id*. at 13.

These concerns are echoed by the report submitted to the North Carolina Department of Environmental Quality by Carpenter Environmental Associates, Inc., also in the North Carolina 401 certification process.[66]

The Carpenter Report assesses the "highest level of impacts due to the pipeline" as occurring at crossings of perennial waterbodies – wetlands or waterways with saturated soils or flowing waters year-round. These impacts include:

> generation and management of dredge spoils, often within a wetland area; increased downstream sedimentation and turbidity; displacement and loss of aquatic organisms; loss of wetland, riparian upland, and aquatic habitats; compaction of soils with the possibility of changes in hydrology; and the potential for invasive species introduction.[67]

Impacts to "intermediate" (intermittent) and ephemeral waterbodies from pipeline crossings also include those related to dredge spoils, wetland and riparian habitat loss, soil compaction and attendant potential hydrology impacts, and potential introduction of invasive species. Sedimentation and turbidity impacts could also occur if construction of the crossing was performed during wet weather or rain events.[68]

Wetland and stream crossing ecosystem effects include species displacement and loss, decrease in prey availability, and restriction of aquatic species movement for

[66] Carpenter Environmental Associates, Inc., Report on the Revised Individual 401 Water Quality Certification and Riparian Buffer Authorization Application, Submitted by Atlantic Coast Pipeline, LLC, for the proposed Atlantic Coast Pipeline Project, Submitted to the North Carolina Department of Environmental Quality on May 8, 2017 (Aug. 2017), included as **Attachment Z** (and hereinafter referred to as the "Carpenter Report").

[67] *Id*. at 6.

[68] *Id*.

foraging and breeding.[69] Increased sedimentation and turbidity from construction, stormwater runoff from the right-of-way and access roads, and clearing of stream banks at crossings "can cause severe impacts" associated with: biological oxygen demand; dissolved oxygen reductions; smothering and elimination of interstitial habitat for fish eggs/larvae and aquatic insects; smothering of benthic organisms, including mussels; introduction of toxics from contaminated sediments or equipment; and interference with fish visibility for feeding and breeding.[70] These adverse effects are acknowledged in the Final EISs for both the ACP and MVP.[71]

All crossing construction methods, including open cut, flume, dam and pump, cofferdam, or horizontal directional drilling (HDD) will result in some level of the above-listed adverse environmental impacts.[72] While FERC, Atlantic, and Mountain Valley tend to undersell these effects or dismiss them as temporary, even the Final EISs admits that: "[c]hanges in surface runoff, infiltration rates, and trench drainage could occur over the life of the project[;]"[73] "[i]n the longer term, steep slopes adjacent to stream crossings

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[69] *Id*. at 15.

[70] *Id*.

[71] *See, e.g.*, Final EIS for Atlantic Coast Pipeline at 4-228 to 4-229; Final EIS for Mountain Valley Pipeline, 4-136 to 4-137.

[72] **Attachment Z** at 7.

[73] Final EIS for Atlantic Coast Pipeline at 4-604; *see also* Final EIS for Mountain Valley Pipeline, 4-137 (explaining that "Increased surface runoff could transport sediment into surface waters, resulting in increased turbidity levels and increased sedimentation rates in the receiving waterbody. Disturbances to stream channels and stream banks could also increase the likelihood of scour after construction.")

would continue to be vulnerable to heavy precipitation events and slope instability[;]"[74] and "long-term impacts related to slope instability adjacent to waterbodies have the potential to adversely impact water quality and stream channel geometry, and therefore downstream aquatic biota."[75] The Final EIS defers the identification of locations where blasting may need to occur until "during construction based on site-specific conditions[.]"[76] Again, without identification of impacts *now*, the Corps cannot conclude that impacts will not be more than minimal, and the Board cannot conclude that water quality will not be harmed.

For wetlands, Atlantic and Mountain Valley will dig a trench through the wetland to install the pipeline. Open cut crossings can have impacts ranging from "minor and temporary to severe and permanent," depending on site-specific conditions.[77] Critically, the key to avoiding significant and permanent impacts is site-specific planning done with an understanding of the hydrology of each specific wetland system to be crossed. Other wetlands will be converted to contractor yards. For these wetlands, and those being

[74] Final EIS for Atlantic Coast Pipeline at 4-606; *see also* Final EIS for Mountain Valley Pipeline, 4-69.

[75] Final EIS for Atlantic Coast Pipeline at 4-594; s*ee also* Final EIS for Mountain Valley Pipeline, 4-216 ("Constructing and operating the MVP and the EEP could temporarily and permanently impact fisheries and aquatic resources. As discussed in greater detail below, sedimentation and turbidity, alteration or removal of in-stream and stream bank cover, stream bank erosion, introduction of water pollutants, water depletions, and entrainment of small fishes during water withdrawals could increase the rates of stress, injury, and mortality experienced by fisheries and other aquatic life.")

[76] Final EIS for Atlantic Coast Pipeline at 4-119; *see also* Final EIS for Mountain Valley Pipeline, 4-203 ("Mountain Valley has not determined whether blasting would be necessary for construction of the MVP.").

[77] **Attachment Z** at 13.

crossed by open cuts, soil compaction from heavy equipment is a major concern "because of the potential to change and redistribute surface and groundwater pathways . . . . Minor changes can redistribute flow and alter species survival and diversity."[78]

Dry crossing methods, in order to be successfully utilized, involve "significant site specific detail and planning," including details relating to "water depth, velocity, stream gradients, composition, size, and distribution of bed materials, stream sinuosity, and materials to be used[.]"[79]

Problems associated with flume crossings include "releases due to poorly sealed dams, . . . approach angle problems leading to an inability to thread the gas pipe under the flume," and bank and substrate problems "associated with a lack of understanding of on-site conditions."[80]

Dam and pump systems "require significant effort and planning[,]" including stream flow calculations, high quality dams, on-site replacement equipment, "on-site pumping capacity of at least 150% of calculated flow," and contingency planning.[81] Removal of dams will lead to sedimentation and turbidity downstream.[82]

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[78] *Id*. at 15.

[79] *Id*. at 8.

[80] *Id*. at 9.

[81] *Id*.

[82] *Id*.

Successful utilization of cofferdams, which temporarily divert flow, requires "significant site specific information about substrate composition, bank stability, [and] flow[.]"[83]

According to Table B-1, streams and other waterbodies crossed by HDD are "avoided" and not "impacted. However, HDD construction "results in drill spoils requiring disposal and proper on-site management[,]"[84] with attendant risk of adverse effects on water quality.

These impacts are not merely abstract. For example, the ACP's crossings of wetlands and waterbodies in Virginia include, among many others: temporary impacts to 24 acres of wetlands[85] at one location in Highland County by a contractor yard; temporary impacts to 41 acres of wetlands[86] at another Highland County location that will be crossed by the pipeline right-of-way; crossing of the Jackson River,[87] 53 feet wide, in Highland County by cofferdam or dam and pump,[88] and attendant temporary impacts to 19 acres of wetlands[89] and 41 acres of wetlands[90] at that location due to cuts; multiple crossings of tributaries to the Jackson River by the right-of-way or access

[83] *Id.*

[84] *Id.* at 10.

[85] VA AP-1 9002.

[86] VA AP-1 0035.

[87] VA AP-1 0037.

[88] Table B-1 Revised, Impact Table of Waters of the U.S. for the Atlantic Coast Pipeline within the U.S. Army Corps of Engineers – Norfolk District at B-3 (Nov. 30, 2017).

[89] VA AP-1 0038.

[90] VA AP-1 0039.

roads;[91] a 106-foot-wide crossing by cofferdam or dam and pump of the Cowpasture River in Bath County,[92] and temporary impacts to 69 acres of wetlands near that crossing due to a cut,[93] including the conversion of 0.84 acres of wetlands; multiple crossings of tributaries of the Cowpasture River;[94] and many, many more along the entirety of the route in Virginia. Many of these crossings in the western portion of Virginia occur in karst terrain, adding another variable potentially contributing to adverse effects on water quality from stream and wetland crossings. The MVP would similarly impact significant aquatic resources along its route through Virginia.[95]

The deficiencies—and simply the nature of the thing to be done—as described above will lead to real and significant adverse effects to Virginia waters all along the pipeline route, unless the Board imposes additional conditions on stream and wetland crossings in order to protect water quality and aquatic resources in Virginia.

IV. Nationwide Permit 12 does not address the combined effects of multiple crossings in individual watersheds.

Nationwide Permit 12 is inadequate to protect water quality from harm caused by the ACP and MVP because it ignores the combined effects of multiple crossings within individual smaller-scale watersheds for each pipeline route. For example, the Final EIS

[91] Including VA AP-1 0042, 0044, 0046, 0047, and 0049, among others.

[92] VA AP-1 0058, at the site of the historic Fort Lewis Lodge.

[93] VA AP-1 0057.

[94] Including VA AP-1 0058, 0059, 0060, and 0062 in close proximity to the Cowpasture River crossing, and Dry Run, White Sulphur Spring Branch, Stuart Run and/or their tributaries, all of which flow into the Cowpasture River.

[95] Final EIS for Mountain Valley Pipeline, Appendix F, Appendix G.

for the ACP, the environmental review for the project adopted by the Corps, never considers the combined effects of pipeline construction on the water quality of specific individual waterways in Virginia that have multiple crossings like Townsend Draft, Hamilton Branch, the Calfpasture River, or Back Creek.[96] Likewise, the Final EIS for the MVP fails to consider the combined effects of the multiple crossings of Little Creek and Bottom Creek.[97] Instead, the cumulative impacts analyses are based on a scale that is not relevant to the water quality of smaller Virginia rivers and streams,[98] is too general and conclusory to be useful, and is not supported by analysis elsewhere in the documents.[99] But Appendix K in the Final EISs, which list pipeline waterbody crossings, and Table B-1 provided by DEQ reveal the seriousness of the risk presented by combined effects of pipeline construction for individual watersheds.

For example, the ACP enters Virginia in Highland County through an extremely steep part of the George Washington National Forest.[100] There it will cross the watershed

[96] *See* ACP Final EIS at 4-606 – 4-607.

[97] MVP Final EIS at 4-121 – 4-122, 4-185; Appendix B-35. *See also* Map of "Cluster" Impacts in Tier III Bottom Creek Watershed, included as **Attachment AA**; Downstream Strategies, *Threats to Water Quality from Mountain Valley Pipeline and Atlantic Coast Pipeline Water Crossings in Virginia* (Feb. 2018) (hereinafter "Downstream Strategies Report") at 9–10, included as **Attachment BB**.

[98] ACP Final EIS at 4-606 (focusing on larger (HUC 10) watersheds); MVP Final EIS at 4-577 – 4-581 (same).

[99] *See, e.g.*, ACP Final EIS at 4-128 (identifying that extreme weather events "have the potential to cause temporary or long-term impairments" of Virginia water quality standards from "slope instability, flash flooding, and debris flow hazards"), 4-129 (stating that "[t]he [Forest Service] believes that sedimentation effects of water resources are unknown" at the time of publication of the final EIS).

[100] *See id.*, Appendix B at B-27.

of Townsend Draft, a Virginia-designated wild trout stream that supports a "naturally reproducing" population of brook trout and at least one tributary, Lick Fork, that is also designated as a wild trout stream. Virginia considers these wild trout streams "both ecologically and economically significant resources," and Virginia agencies have recommended their protection as part of the review of the ACP.

Brook trout populations in streams like Townsend Draft and Lick Fork are vulnerable to disturbances, like increased sedimentation or increased flows, which can push them towards an "extinction vortex" and result in the loss of the population. In its comments on the draft EIS for the ACP, DEQ expressed concern that pipeline construction would "result in a permanent alteration of impacted" waterways.

The slopes in the Townsend Draft watershed are some of the steepest on the entire pipeline route in Virginia, and the Forest Service identified this area as one of several critical areas for which Atlantic was required to provide site-specific slope stability plans.[101] During construction of the ACP, sedimentation into the downslope tributaries of Townsend Draft is certain in light of the steep, difficult terrain the pipeline will cross. Indeed, Atlantic quantified the risk for the U.S. Forest Service. According to Atlantic's analysis, the area will experience "significant increases in erosion during construction" of approximately 200 to 800 percent above baseline, with higher rates for steep slope areas.[102]

[101] *Id.* at 4-45.

[102] *Id.* at 4-128.

According to the final EIS, the pipeline and access roads will cross Townsend Draft and its tributaries nine times along just a half-mile section of the route.[103] Those crossings will be accompanied by acres of land clearing and other construction on the steep slopes adjacent to the waterways. Moreover, Townsend Draft flows into Back Creek, which is also crossed by the pipeline and is potential habitat for the federally endangered James spinymussel.[104]

Because areas of intense construction activity are highly concentrated in the Townsend Draft watershed, there is a significant risk that sediment loads reaching this wild trout stream from multiple sources could combine to adversely affect water quality. And this risk will be compounded during storm events when each source will simultaneously contribute its maximum amount of sediment.[105] Because the Corps has not considered the combined effects of multiple crossings in the Townsend Draft watershed, Nationwide Permit 12 cannot provide the Board with reasonable assurance that the risk of water quality violations are minimal.

Nor is Townsend Draft an isolated example. All along the ACP's route there are concentrated areas of disturbance within individual watersheds. In the steep terrain east of Fort Lewis in Bath County, Gibson Hollow and its tributaries will receive five pipeline right-of-way crossings and seven access road crossings along a 0.4-mile stretch of the

[103] *Id.*, Appendix K at K-18 – K-19.

[104] *Id.* at 4-306.

[105] *Id.* at 4-128.

route.[106] Also in Bath County, the Final EIS for the ACP reports that the pipeline and access roads will intersect the main channel of Mill Creek, a waterway known to contain the federally endangered James spinymussel,[107] and its tributaries 17 times over approximately 2.5 miles.[108] Table B-1 from DEQ also includes wetlands along Mill Creek which brings the total crossings to 24 for this watershed. In the Calfpasture River watershed, Hamilton Branch and its tributaries have 31 pipeline and access road crossings over approximately three miles, and the main channel of the Calfpasture River and its tributaries have another 40 crossings over eight miles, bringing the total number of crossings to a remarkable 71 for the watershed.[109] In Table B-1, the number of crossings in the Calfpasture watershed jumps to a stark 93. Construction will also affect waterways that are already struggling with heavy sediment loads. On the west side of the Blue Ridge in Augusta County, the pipeline and access roads will intersect Back Creek (not the same Back Creek discussed above) and its tributaries 49 times,[110] even though aquatic life in the creek is already impaired because of sedimentation and could be "exacerbated by the proposed pipeline construction and maintenance."[111] Again, Table B-1 reports even more crossings, a total of 58 for the Back Creek watershed.

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[106] *Id.*, Appendix K at K-24.

[107] *Id.* at 4-305.

[108] *Id.*, Appendix K at K-25 – K-27.

[109] *Id.*, Appendix K at K-28 – K-32.

[110] *Id.*, Appendix K at K-34–K-36.

[111] *Id.* at 4-128.

Similarly, the Little Creek watershed along the path of the MVP in Franklin County would be crossed 50 times within the its HUC-12 watershed. That includes 39 stream crossings (34 crossings by the pipeline, four crossings by access roads, and one crossing by additional temporary workspace) and 11 wetland crossings.[112] The streams that would be crossed all eventually run into the Blackwater River, the source of the Town of Rocky Mount's drinking water. Nearly all the crossings in this watershed are within the Town of Rocky Mount's Source Water Assessment Area.[113] Little Creek is already listed as an impaired stream by DEQ as a result of its inability to support healthy populations of aquatic life and significant increased sedimentation from these many crossings will only exacerbate the existing water quality problems.

The watershed of Bottom Creek in Roanoke County would also be crossed numerous times. This includes 36 stream crossings of Bottom Creek and its tributaries (including Mill Creek)[114] and 45 wetland crossings[115] for a total of 81 crossings within a just over 5 miles stretch between mileposts 240.8 and 246.1. A portion of Bottom Creek downstream from these crossings has been designated as a Tier III Exceptional Water, of which there are only 30 in the Commonwealth, which means that it is not to be subject to any long-term degradation of water quality.[116] The pipeline will cross Bottom Creek just

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[112] MVP Final EIS, Appendix F, Appendix G; Downstream Strategies Report, **Attachment BB** at 9–10.

[113] Downstream Strategies Report, **Attachment BB** at 9.

[114] MVP Final EIS, Appendix F1-105 – F1-108.

[115] *Id.*, Appendix G1-22 – G1-24.

[116] 9 Va. Admin. Code § 25-260-30(3).

north of a Nature Conservancy preserve and will cross a number of Nature Conservancy-managed conservation easements that are intended to protect the headwaters of Bottom Creek.[117] According to the Conservancy, Bottom Creek is critical habitat for four species of fish native to the headwaters of the Roanoke River: the orangefin madtom, the bigeye jumprock, the riverweed darter, and the Roanoke darter. It also contains approximately 10 percent of all fish species known from Virginia, including native brook trout.[118] The combined impacts of the numerous crossings of this exceptional watershed would frustrate these conservation efforts and have not been adequately considered.

[117] MVP Final EIS at 3-76, 4-171.

[118] https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/virginia/placesweprotect/bottom-creek-gorge.xml.