POTOMAC RIVERKEEPER NETWORK

3070 M Street, NW
Washington, DC 20007
202.888.2037 (main)
www.prknetwork.org

August 8, 2017

Secretary Benjamin H. Grumbles
Maryland Department of the Environment
Montgomery Park Business Center
1800 Washington Blvd.
Baltimore, MD 21230
Via e-mail to
Ben.grumbles@maryland.gov

Re: FERC Docket No. CP-17-80-000, Columbia Gas Transmission Eastern Panhandle Expansion Project

Dear Secretary Grumbles:

We, the undersigned organizations, write to urge the Maryland Department of the Environment (MDE) to use the full scope of its authority under the Clean Water Act (CWA) § 401 certification process to adequately assess the potential impacts of the Eastern Panhandle Expansion project (the Project). Collectively, our eighteen organizations represent tens of thousands of Marylanders who are counting on MDE to conduct a thorough and transparent review of stream and wetland crossings, upstream and downstream impacts, cumulative impacts, and to ensure that Maryland's waterways are protected and its water quality standards are met.

As you are aware, Columbia Gas Transmission, LLC (Columbia), a TransCanada Company, has applied to the Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity (PCN) under Section 7(c) of the Natural Gas Act (NGA) for the construction, operation, and maintenance of the Project.[1] The Project spans three counties and states (Fulton County, Pennsylvania; Washington County, Maryland; and Morgan County, West Virginia) and will involve the construction and operation of the following facilities:

- approximate 3.37 miles of new greenfield 8-inch diameter pipeline (3.06 miles in MD)
- three main line valves, and
- two new tie-in assemblies.

[1] FERC Docket No. CP-17-80-000.

Columbia also applied jointly to MDE and the United States Army Corps of Engineers (Corps) for a water quality certification under §§ 401 and 402 of the CWA, respectively, on April 12, 2017. MDE has full authority to review the application. At the present time we do not believe that Columbia's application contains sufficient information to demonstrate compliance with Maryland's water quality regulations and other applicable federal and state laws. To conduct a thorough review of the Project, it is vital that MDE collect additional information from Columbia. For instance, we recommend that MDE ask for more detailed information on the proposed route, especially under the C&O Canal and Potomac River. At a minimum, MDE should also examine the soil boring and geologic survey already provided by the applicant to determine what additional information it needs to understand the extent to which the applicant will be drilling through karst topography and to evaluate the potential impacts that drilling through this delicate substratum can cause.[2] MDE should wait to schedule any public hearings or otherwise move forward with the § 401 certification until Columbia has provided all the information necessary for MDE to conduct a thorough review, and the public has had an opportunity to examine that information.

We also request that MDE require individual § 401 certifications for wetland and stream crossings, rather than relying on the Corps' Nationwide Permit 12 (NWP 12) and MDSPGP-5, Category B classifications. MDE needs specific information about each stream crossing to determine whether construction will comply with applicable water quality standards for turbidity and preserve the designated uses of the affected waterways. The Corps' Nationwide Permit 12 and Maryland's general MDSPGP-5 permit also will not allow for full consideration of the impacts from activities like in-stream blasting and trenching in rugged and challenging terrain before determining that a project can be authorized as satisfying Maryland's water quality standards. Whether serious impacts such as sedimentation can be adequately mitigated cannot be evaluated without such analysis, despite the risk to some of the most pristine waters in Maryland. MDE can and indeed must fill this gap with its own thorough review of waterbody crossings.

In addition to individual § 401 certifications, MDE should consider the cumulative impacts of the Project together with the directly-related Mountaineer Gas pipeline on all of Maryland's aquatic resources and public health, including upstream and downstream impacts. MDE should not ignore that this Project is merely the interstate link between the fracked gas production in Pennsylvania and the Mountaineer Gas pipeline. Because Mountaineer Gas will be constructed wholly within West Virginia, when considered by itself, it is not subject to federal review.[3] Yet, under the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332, and Council on Environmental Quality (CEQ) Guidelines, 40 C.F.R. § 1508.25(a), which provide guidance to state environmental reviews, it is properly considered a "connected action." And, in terms of impacts on aquatic resources and public health, its cumulative impact on the Potomac River and Maryland streams and waterbodies

[2] At a minimum, MDE should take note of the data requests that FERC sent on June 22, 2017, asking Columbia for additional information on drilling methods, impact on karst geology, and water resources, FERC submittal no. 20170622-3010, and should carefully review Columbia's responses filed on July 12, 2017. *See* Submittal Nos. 20170712-5159 (public file), 20170712-5060 (non-public file). MDE should ask for access to the non-public application and data response files, and is entitled to them to carry out its independent review responsibilities.

[3] Mountaineer Gas filed an application with the West Virginia Public Service Commission to expand its pipeline construction authority on March 31, 2016, to add 56 miles of pipeline running from the proposed Columbia Gas pipeline (this Project) to Berkley Springs and then to Martinsburg, to deliver more Marcellus Shale gas to industrial customers who want to build manufacturing plants in the region. *See* Mountaineer Gas application, dated March 31, 2016, available at: http://www.psc.state.wv.us/WebDocket/default.htm,

cannot be ignored through such artful segmentation.[4] Without access to the proposed Columbia Gas pipeline, Mountaineer Gas would not build its own proposed pipeline. They therefore lack "substantial independent utility" and are "inextricably intertwined," necessitating consideration of their combined environmental impacts.[5]

Cumulatively, impacts to streams and the Potomac River from the construction and operation of the combined pipeline proposals could be profound, including potential loss of aquatic habitat, changes in thermal conditions, increased erosion, creation of stream instability and turbidity, impairment of best usages, as well as watershed-wide impacts resulting from placement of the pipeline across virtually untouched bodies of water. MDE should be cognizant of what types of methods Mountaineer Gas will be using for stream and road crossings. The sensitive streams that will be crossed (Back Creek and Opequon Creek) have karst geology which increases the possibility that surface disturbances throughout a wide area around each creek can contaminate private and public wells. Some of these crossings are only within a few miles of the creeks' confluence with the Potomac River. A catastrophic event, such as a HDD blowout or other construction or operational impact occurring in a stream crossing by Mountaineer Gas has just as much potential to contaminate drinking water supplies downstream as with the crossing of streams within Maryland or the Potomac River by Columbia Gas. The risk of a gas leak once either pipeline is built and operational must also be given due consideration. The release of methane gas into aquifers and the Potomac River can impact wells and drinking water, adversely affecting the health of millions.

Lastly, we'd like to highlight MDE's legal obligation to protect the public health and the environment under other state laws. The Maryland Environmental Policy Act (MEPA) states that "[t]he protection, preservation, and enhancement of the State's diverse environment is necessary for the maintenance of the public health and welfare and the continued viability of the economy of the State and is a matter of the highest public priority."[6] Furthermore, "[e]ach person has a fundamental and inalienable right to a healthful environment."[7] To these ends, MEPA directs State agencies to "conduct their affairs with an awareness that they are stewards of the air, land, water, living and historic resources, and that they have an obligation to protect the environment for the use and enjoyment of this and all future generations."[8]

Accordingly, Maryland's Gas and Oil Title requires MDE to prohibit gas exploration and production "when these operations will have a significant adverse effect on the environment."[9] On April 4, 2017 the Governor signed into law a complete ban on the use of fracking to extract oil and natural gas within Maryland. MDE should take this policy consideration into account in reviewing this Project. Although the fracking extraction will occur in Pennsylvania, the fracked gas will be transported through Maryland if the Project

[4] *Del. Riverkeeper v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014) (agencies should consider the true scope and cumulative impact of connected actions).
[5] *Id*. at 1315-17.
[6] Md. Code Ann., Nat. Res. § 1-302(b).
[7] Id. § 1-302(d).
[8] Id. § 1-302(c); *see also* Bausch & Lomb Inc. v. Utica Mut. Ins. Co., 625 A.2d 1021, 1035 (Md. 1993) ("[MEPA] directs that State agencies must conduct their affairs as 'stewards of the air, land, [and] water . . . resources'; in common usage, a steward is one who cares for the property or interests of another.").
[9] Md. Code Ann., Envir. § 14-101.

is approved, and will encourage further development of fracked gas supplies. We urge MDE to consider these over-arching policy considerations during its review process.

MDE's Authority under CWA § 401

The water quality certification process under the CWA § 401 provides states with an effective tool to protect local water quality from the potential impacts of federally-issued permits and licenses. In a recent comment to FERC, MDE affirmed the state's authority under § 401:

"Decades of federal court decisions interpreting Section 401 have established the states' authority to require conditions in FERC licenses necessary to protect water quality. These decisions recognize and affirm the basic principle of federalism embodied in the Clean Water Act that states have the primary role and responsibility to ensure state water quality standards are met."[10]

Under the CWA, a federal agency is prohibited from issuing a permit for an activity that may result in a discharge to waters of the United States unless that state has granted or waived the § 401 certification. A state may also deny the § 401 certification, thereby prohibiting the federal permit from being issued at all.[11] For instance, the New York State Department of Environmental Conservation (DEC) recently denied the § 401 certification for the proposed Northern Access Pipeline because the application failed to demonstrate that it would meet federal and state water quality standards. According to DEC, it could not be assured that the "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 biological integrity and best usages of affected water bodies and wetlands."[12] NYS DEC previously denied the proposed Constitution pipeline for failing to provide adequate information to assure compliance with the state's water quality standards.[13]

Under Maryland regulations, "a federal permit or license to conduct any activity which may result in any discharge to navigable waters is prohibited unless the applicant provides a certification from the State that the activity does not violate State water quality standards or limitations."[14] Therefore, FERC cannot grant the PCN certification if MDE rejects the § 401 permit.

Furthermore, should MDE decide to apply the General Permit MDSPGP-5 to the Project rather than an individual permit, MDE is not thereby divested of its authority and obligation to conduct a § 401 analysis for the proposed Project. Indeed, the permit expressly provides for MDE's ability to engage in the § 401 process and demand water

[10] http://docs.house.gov/meetings/IF/IF03/20170622/106183/HMKP-115-IF03-20170622-SD020.pdf.
[11] CWA §401(a)(1); EPA Clean Water Act 401 Handbook 2010, https://www.epa.gov/sites/production/files/2016-11/documents/cwa_401_handbook_2010.pdf
[12] *See* Notice of Denial Letter of NYS DEC dated April 7, 2017, Joint Application Permit No. 9-9909-00123/00004; http://www.dec.ny.gov/docs/permits_ej_operations_pdf/northaccesspipe42017.pdf
[13] *See* Notice of Denial Letter of NYS DEC, dated April 22, 2017, denying Permit Application No. 0-9999-00181/00024; http://www.dec.ny.gov/docs/administration_pdf/constitutionwc42016.pdf
[14] COMAR 26.08.02.10.

quality assurances even where the General Permit is contemplated. Section VII.B.15 of the permit states:

Permittees must satisfy any conditions imposed by the State of Maryland and EPA, where applicable, in their Water Quality Certification for the MDSPGP-5 pursuant to Section 401 of the Clean Water Act. On September 13, 2016, the Maryland Department of the Environment issued WQC for the MDSPGP-5 subject to the condition that the applicant obtains all necessary State permits and approvals. The Corps or State may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

Environmental and Public Health Impacts from Constructing and Operating Gas Pipelines

There are numerous inherent adverse environmental and public health consequences from the construction and operation of natural gas pipelines. They can lead to land disturbance, which harms local ecosystems through the erosion of dirt, minerals, and other harmful pollutants into nearby streams, and fragments wildlife habitats and migration patterns.[15] Further, they can pose contamination risk to surface waters through spills and leaks of chemical additives, spills and leaks of diesel or other fluids from equipment on-site, and leaks of wastewater from facilities for storage, treatment, and disposal.

The planned use of horizontal directional drilling (HDD) to construct and install the Project pipeline compounds those risks. Of greatest concern is the harm that could result from a rupture during construction, pouring bentonite drilling fluid into the Potomac, streams, and C&O canal and causing damaging sedimentation. This method has been known to fail, most recently in Ohio and Pennsylvania. On May 10, 2017, FERC ordered Rover Pipeline LLC not to conduct any new HDD in construction of its Rover pipeline after the company spilled nearly two million gallons of bentonite drilling fluid into an Ohio wetland. Even more recently, Sunoco had to suspend HDD construction of its Mariner East 2 Pipeline in Pennsylvania after contaminating an aquifer and individual wells, causing homeowners' water to be cloudy and discolored, and necessitating their temporary relocation to nearby hotels.[16]

During its operation, the transportation of natural gas in pipelines often leads to the leakage of methane, which is a potent greenhouse gas and is 86 times stronger than CO2 at trapping heat over a 20 year period, greatly exacerbating climate change.[17] Leaks of methane gas can also contaminate groundwater and drinking wells, causing significant harms to human health. This is particularly problematic when, as in this case, the pipeline will be constructed through karst topography.[18]

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[15] Williams, H. F. L., Havens, D. L., Banks, K. E., & Wachal, D. J. (2007). Field-based monitoring of sediment runoff from natural gas well sites in Denton County, Texas, USA. Retrieved July 7, 2017, from http://www.math.unt.edu/~williams/GEOG_3350/enviongeolpaper.pdf

[16] http://www.philly.com/philly/business/energy/water-contamination-complaints-force-sunoco-to-suspend-chesco-pipeline-construction-20170707.html.

[17] Environmental Impacts of Natural Gas. (n.d.). Retrieved July 7, 2017, from http://www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/environmental-impacts-of-natural-gas.

[18] Karst is typified by sinkholes and caves. Aquifers in karst topography can transport pollutants much more quickly than other aquifers, simply because there are frequently large cracks and caves through which the water can travel,

The Project's Potential Impact on Maryland's Water Quality Standards

1. *Maryland's Water Quality Standards*

The purpose of Maryland's water quality standards is to protect public health, enhance the quality of water, and protect aquatic resources.[19] The state accomplishes this through its three-part water quality standards: (1) designation of what the water is used for, (2) water quality criteria to protect those designated uses, and (3) antidegradation policy, or the state's policy to maintain existing water quality.[20]

The water bodies the pipeline would cross are considered Tier I water bodies, designated as "fishable-swimmable" water bodies. More specifically, under Maryland's water quality standards, COMAR 26.08.02.02, these water bodies are designated as Class I-P which includes waters that are suitable for: water contact sports, play and leisure activities, fishing, growth and propagation of fish, and agricultural, industrial, and public water supplies. Under COMAR 26.08.02.03, Maryland waters may not be polluted by waste substances that form sludge and floating materials, such as debris, oil, grease, scum, and sludge, attributable to sewage or industrial waste. The standards also prohibit pollution by other wastes that are unsightly, produce taste or odor, produce an objectionable color for aesthetic purposes, create a nuisance, or interfere directly or indirectly with designated uses. Further causes of pollution include the introduction of substances that cause high temperatures or result in the discharge of corrosive substances attributable to sewage, industrial waste, or other wastes that may cause acute toxicity.

Columbia's application for § 401 certification has not provided sufficient information to demonstrate compliance with Maryland's water quality regulations found under COMAR 26.08.02.01, COMAR 26.08.02.02, COMAR 26.08.02.03, and COMAR 26.08.02.04. As proposed, the Project will have a negative impact on water quality and will cause the impairment of the best usages of these Class I-P waters. MDE should require that the applicant submit the same range of information that FERC and the Corps have required, so that it can undertake an independent review.

2. *Project's Impact on Water Quality*

The Project spans three states, all of which are contained within the Upper Potomac River Basin. In Maryland, the Project will cross two bodies of water, the Potomac River and the C&O canal, and multiple streams, all of which are already impaired and currently violate the state's antidegradation policy. Construction and operation of the proposed pipeline and associated infrastructure will only exacerbate these impairments. Under the proposed construction route, many of the streams may be significantly impacted by construction and the crossings will jeopardize best usages. Many of these streams are part of tributary networks that are dependent upon the contributing quality of connected streams to supply and support the physical and biological needs of a system.

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rather than having to pass through less porous, less permeable rock types. *See* http://smartpig.pstrust.org/natural-gas-components-transmission-line-leaks-and-karst-topography

[19] COMAR 26.08.02.01(A).

[20] COMAR 26.08.02.01(B); 26.08.02.04.

The pipeline will impact sensitive karst geology that could transmit pollutants through a connected underground aquifer and degrade pristine streams or threaten public and private water supplies. Using hydraulic directional drilling under the Potomac in karst geology can create pathways for water to drain down the bore holes and dissolve the limestone around the piping. This can create sinkholes and caverns that could impact the integrity of the pipeline, causing subterranean ruptures and possible explosions.[21]

In terms of underground water resources, the Project will be located above the principal aquifer designated as the Valley and Ridge Formation.[22] Three groundwater wells in Maryland are located within 150 feet of the Project workspaces.[23] Columbia anticipates encountering bedrock during construction; therefore, blasting may be required if shallow bedrock or boulders cannot be removed by conventional methods.[24] Columbia's Application must be amended to provide site-specific information about where blasting will occur. Without this information, MDE will be unable to determine whether the Project will be protective of State water quality standards and in compliance with applicable State statutes and standards.

The 52-mile segment of the Potomac River that the Project would cross is considered sensitive based on its listing by the Nationwide Rivers Inventory (NRI).[25] This segment parallels the C&O canal which is listed as a National Historic Register Site, with one of the least-altered older canals. Not only does this segment of the river have historic significance, but it has hydrological significance as one of the largest (in cubic feet per second), longest, free-flowing, sparsely-developed remaining high order rivers in the NRI-designated region.[26] This segment of the river and the adjacent C&O canal, will be crossed by the Project via the horizontal directional drill (HDD) bore method. This method has been known to fail, causing long-term environmental and public health impacts. Due to the nature of this segment of the river, in particular, the karst geology, it has high potential for directional drilling "blowouts." This kind of damage could be irreversible for the historic nature of the C&O canal park and for the long-term health of the river.

When the HDD bore method fails, it can result in some catastrophic consequences. Earlier this year, the HDD bore method failed during the construction of the Rover Pipeline and spilled nearly two million gallons of bentonite drilling fluid into an Ohio wetland, causing extensive environmental damage. Research suggests that this fluid is toxic to aquatic life.[27] And the turbidity of the sedimentation itself causes harm to aquatic life. On May 10, FERC ordered Rover Pipeline LLC not to conduct any new pipeline construction employing HDD.[28] The Ohio Environmental Protection Agency (EPA) more recently found diesel fuel in the spilled drilling mud, adding to the adverse, long-term environmental impacts. Ohio

[21] *See* memorandum dated June 16, 2017 from Maryland Department of Natural Resources (DNR) to MDE, describing presence of karst geology and need for additional analysis of possible adverse impacts of using HDD to drill through karst; FERC Submittal No. 201706016-5213.
[22] Columbia Gas Resource Report (RR) 2, Groundwater Resources, at 2-1; FERC e-Library Submittal No. 20170315-5224.
[23] RR 2, at 2-3.
[24] *Id.*
[25] RR 2, at 2-11.
[26] *See* RR 2 at 2-11.
[27] Toxicity Characteristics of Drilling Mud and Its Effect on Aquatic Fish Populations, *Sil, et al.* (2012).
[28] FERC e-Library, Docket No. CP15-93-000, Issuance No. 20170510-3009.

EPA increased its proposed penalty against Rover Pipeline from $430,000 to $914,000.[29] Companies using HDD submit contingency plans in the event that failures occur; Columbia Gas has already submitted a contingency plan to FERC.[30] As indicated in DNR's second set of scoping comments to MDE,[31] the area of possible karst—eroded limestone—is near the Potomac River, where the HDD will take place.

Based on these concerns, MDE must gain sufficient assurances from Columbia to ensure that Maryland's water quality standards are met and that our health and environment are protected. Marylanders rely on these waters for recreation, habitat, and the health of our watersheds. Analysis of the stream crossings and cumulative impacts is critical to ensure that water quality and the aquatic environment in Maryland are protected. Absent such assurances, and the imposition of meaningful, significant mitigation measures, MDE should deny the § 401 certificate application.

Conclusion

We urge MDE not to rush through its review of this Project. Protection of Maryland's streams, rivers, and wetlands is too important to place at risk. MDE must take the time needed to ensure it has all necessary information, review that information, give the public an opportunity to thoroughly review and comment on the information at a public hearing, and then conduct a thorough and transparent analysis of the significant potential impacts of the Project on critical water crossings and all related upland and downstream activities.

Overwhelming scientific evidence, along with the recent § 401 certification denials for two proposed pipeline in New York State, confirm the inherent public health and environmental dangers with pipelines and associated infrastructure. This Project will likely have significant adverse impacts on water quality, aquatic habitat, and public health, especially when considered together with the cumulative impacts of the proposed Mountaineer Gas pipeline in West Virginia. Yet Maryland will not gain any benefits from the pipeline's construction and operation. If MDE cannot impose conditions adequate to minimize these impacts, it should consider denying the application. Given the recent concerns and problems using HDD to construct pipelines in New York, Ohio and Pennsylvania, and the unique geologic features present in this Project, we are gravely concerned that no set of conditions will be adequate. We firmly believe that, once MDE conducts its required § 401 certification analysis in the proper, comprehensive manner dictated by the Clean Water Act, it will ultimately conclude that certification for this Project is not warranted.

Thank you for giving us the opportunity to provide input to MDE on this project. Please contact Phillip Musegaas, Vice President of Programs and Litigation at Potomac Riverkeeper Network if you have any questions regarding this letter. He can be reached by phone at 202-888-4929 or e-mail, phillip@prknetwork.org.

Respectfully,

AMP Creeks Council

[29] http://www.cantonrep.com/news/20170601/rover-pipeline-faces-more-environmental-scrutiny.
[30] Columbia Gas Resource Report 2, Water Use and Quality, Appx. 2C, HDD Contingency Plan.
[31] http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20170616-5213.

Chesapeake Climate Action Network
Chesapeake Physicians for Social Responsibility
Clean Water Action
Earthworks
Food & Water Watch
Howard County Climate Action
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