



September 9, 2014

Pamela Bush, Commission Secretary  
Delaware River Basin Commission  
P.O. Box 7360  
West Trenton, New Jersey

**Re: Petition to the Delaware River Basin Commission to Exercise  
Jurisdiction Over the PennEast Pipeline Project**

Dear Ms. Bush,

The Delaware Riverkeeper and the Delaware Riverkeeper Network (collectively, DRN) hereby petition the Delaware River Basin Commission (Commission), pursuant to its authority and obligations under Section 3.8 of the Delaware River Basin Compact (Compact), to exercise its jurisdiction under the Compact and the current Rules of Practice and Procedure (RPP) over the PennEast Pipeline Project.

With the rapid expansion of the unconventional shale gas development industry, there has also been a corresponding proliferation of transmission line construction and expansion projects that cross the Delaware River Basin. Whether considered individually or cumulatively, these pipeline projects demonstrably have had substantial effects and will continue to have substantial effects to the water resources of the Basin, thus obligating the Commission to take jurisdiction under the Compact.

The list of natural gas pipeline projects that have already been built through the Basin, are definitively planned to be built through the Basin, or are tentatively planned to be built through the Basin is long and growing longer:

### **Eleven Pipeline Projects Constructed Through the Basin Since 2011**

- TGP 300 Line Upgrade Project
- Columbia 1278k Replacement
- ESNB Eastern Shore Expansion
- ESNB New Castle Project
- DTE Bluestone Pipeline
- TGP Northeast Upgrade Project
- ESNB Greenspring Project
- Transco Northeast Supply Link
- Transco Philadelphia Lateral
- Transco Mainline “A” Replacement
- Texas Eastern Appalachia to Market Expansion 2014 (TEAM 2014) Project

### **Seven Pipeline Projects That Will Potentially Go Through the Basin**

- Constitution Pipeline
- Transco Leidy Southeast Expansion
- Sonoco Mariner East 1 Project
- Sonoco Mariner East 2 Project
- Columbia East Side Expansion Project
- Transco Diamond East Pipeline Project
- PennEast Pipeline Project

Currently, no federal, state, or local regulatory agency other than the Commission is tasked with evaluating the cumulative impacts of natural gas pipeline projects and associated infrastructure construction, including access roads and compressor stations, in the Delaware River Basin. The Commission must take a strong leadership position on natural gas pipeline construction to meet its obligations under the Compact and the Water Code to ensure all approved projects are consistent with the Comprehensive Plan and that they meet the strict anti-degradation requirements applicable to Special Protection Waters. As such the Commission should take jurisdiction over the PennEast Project and perform a searching environmental review of the project. Section 3.8 of the Compact provides in relevant part:

No project having a substantial effect on the water resources of the basin shall hereafter be undertaken by any person, corporation, or governmental authority unless it shall have been first submitted to and approved by the commission, subject to the provisions of Sections 3.3 and 3.5. The commission shall approve a project whenever it finds and determines that such project would not substantially impair or conflict with the comprehensive plan and may modify and approve as modified, or may disapprove any such project whenever it finds and determines that the

project would substantially impair or conflict with such plan. The commission shall provide by regulation for the procedure of submission, review and consideration of projects, and for its determinations pursuant to this section.

The Comprehensive Plan is established by Article 13.1 of the Compact:

The commission shall develop and adopt, and may from time to time review and revise, a comprehensive plan for the immediate and long range development and use of the water resources of the basin. The plan shall include all public and private projects and facilities which are required, in the judgment of the commission, for the optimum planning, development, conservation, utilization, management and control of the water resources of the basin to meet present and future needs.

In 1992, in response to a petition filed by DRN, the Commission launched the Special Protection Waters (SPW) program, which established regulations to “keep the clean water clean” in the upper and middle sections of the non-tidal Delaware, portions of which had been designated by the federal government as part of the National Wild and Scenic Rivers System in 1978. Following the federal designation of an additional 38.9 miles of the Delaware in the National Wild and Scenic Rivers System in 2000, and again in response to a petition filed by DRN, in 2008 the Commission expanded SPW coverage to include the river from the Delaware Water Gap National Recreation Area downstream to the head of tide at Trenton, New Jersey. The entire 197-mile non-tidal river is now included under the SPW regulations, which is believed to be the longest stretch of anti-degradation policy established on any river in the nation.

Special Protection Waters are waters designated by the Commission, pursuant to the Water Quality Regulations, that have exceptionally high scenic, recreational, ecological, and/or water supply values and are subject to stricter control of non-point pollution control, wastewater discharges, and reporting requirements to prevent degradation.

Article 3 of the Water Code, Section 3.10.3.A.2 establishes the strict anti-degradation standard that the Commission applies to Special Protection Waters of the Basin: “It is the policy of the Commission that there be no measurable change in existing water quality except towards natural conditions . . .” Water Code Article 3, Section 3.10.3.A.2.e requires that “Projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the project’s service area which is also located within the drainage area of Special Protection Waters.”

The RPP classifies projects for review under Section 3.8 of the Compact into two categories, those deemed not to have a substantial effect on the water resources of the Basin and therefore not required to be submitted for Commission review, and those deemed to have

substantial effects on water resources of the Basin and therefore required to be submitted for Commission review. See RPP Article 3, Section 2.3.5.

With respect to natural gas pipeline projects, the RPP categorizes them as projects that presumptively do not have a substantial effect on the water resources of the Basin and that therefore do not automatically require Commission review:

Electric transmission or bulk power system lines and appurtenances; major trunk communication lines and appurtenances; **natural and manufactured gas transmission lines and appurtenances**; major water transmission lines and appurtenances; unless they would pass in, on, under or across an existing or proposed reservoir or recreation project area as designated in the Comprehensive Plan; unless such lines would involve significant disturbance of ground cover affecting water resources;

RPP Article 3, Section 2.3.5.A(12) (emphasis added).

This section contains two independent exceptions to the exemption that, if the stated conditions are met, trigger Commission review: first, if the project in question crosses an existing or proposed reservoir or recreation area that has been incorporated into the Comprehensive Plan, and second, if the project involves a significant disturbance of ground cover affecting water resources.

Furthermore, the DRBC issued a letter to the Delaware Riverkeeper Network on January 30, 2013 which provided a description detailing how the Commission considered the portion of 2.3.5.A(12) for projects that “involve a significant disturbance of ground cover affecting water resources.” The DRBC stated in the letter that it was guided by other land disturbance thresholds established in section 2.3.5 (A). One standard described that a significant disturbance threshold was triggered by projects that involved “[d]raining, filling, or otherwise altering marshes or wetlands” in excess of “25 acres.” The DRBC stated that meeting this threshold indicates that the magnitude of disturbance warrants basin-wide review – although we note that the Commission did not limit itself to this criteria or that discussed in 2.3.5.A(6), therefore appropriately leaving open other considerations.

**The Commission Is Obligated Under the Compact and Has Ample Authority Under the RPP To Take Jurisdiction Over All Natural Gas Pipeline Projects Currently Being Proposed.**

The Commission should grant DRN’s petition to meet its Compact obligations and exercise its existing authorities under the Compact and the RPP to take jurisdiction over the PennEast Pipeline Project as it triggers both standards for review. First, PennEast Project meets the exception to the exemption articulated in the RPP in that the Project will involve the disturbance of ground cover affecting water resources. Tennessee Gas and Pipeline’s Northeast Upgrade Project was a forty mile upgrade project which was collocated with an existing pipeline, and that project still involved the alteration or destruction of over 25

acres of wetlands. The PennEast Project is a greenfields pipeline project that will result in the cutting of a 100 foot wide right-of-way for over 100 miles in the Basin, and will result in the disturbance of well over 1,200 acres of land. With a project of this magnitude, there is little doubt that the PennEast Pipeline will result in the alteration or destruction of well over 25 acres of wetlands and transform a sufficient magnitude of groundcover so as to trigger DRBC review.

Second, this project may meet the exception to the exemption articulated in the RPP in that it may pass in, on, under or across an existing or proposed reservoir or recreation project area as designated in the Comprehensive Plan. The DRBC must request data from PennEast to determine early in the process what the proposed route is, and where that proposed route intersects with lands identified in the Comprehensive Plan.

**Natural Gas Pipeline Projects Involve Significant Disturbance of Ground Cover Affecting Both Surface and Ground Water Resources.**

Pipeline construction results in the loss of riparian vegetation as well as the clearing and maintaining of rights-of-way through forested lands; these significant disturbances of ground cover affect both surface and ground water resources within the meaning of RPP Article 3, Section 2.3.5.A(12). Accordingly, the Commission must take jurisdiction over the currently proposed pipeline project for review under the Compact for consistency with the Comprehensive Plan.

The proposed pipeline project in the Delaware River Basin must cross waterways both large and small. While PennEast has yet to provide construction details, no matter what pipeline construction technique is used, there is vegetation loss associated with clearing stream banks and floodplains including for distances well over 100 feet. This reduction in foliage increases stream temperature and reduces its suitability for fish incubation, rearing, foraging and escape habitat. The loss of vegetation also makes the stream more susceptible to erosion events, as the natural barrier along the stream bank has been removed. The loss of buffer also diminishes the quantity and quality of instream macroinvertebrate and aquatic life communities thereby diminishing the ability of the stream to process instream pollutants.

Forest fragmentation and habitat loss is a serious and inevitable consequence of pipeline construction activity and associated infrastructure construction (including access roads and compressor stations). While the right-of-way for a pipeline construction zone ranges from 25-200 feet, on average, the right-of-way extends about 100 feet.<sup>1</sup> The Nature Conservancy has determined that “[t]he expanding pipeline network could eliminate habitat conditions needed by “interior” forest species on between 360,000 and 900,000 acres as new forest edges are created by pipeline right-of-ways.” In addition, the right of way will need to be maintained and kept clear throughout the lifetime of the pipeline,

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<sup>1</sup> Nels Johnson, et al., *Natural Gas Pipelines*, THE NATURE CONSERVANCY, 1 (December 2011) at 6.  
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which can be up to 80 years. The proposed PennEast project is a greenfields pipeline and will involve significant disruption to forest habitat.

A report just released by the U.S. Geological Survey, titled “Landscape Consequences of Natural Gas Extraction in Bradford and Washington Counties, Pennsylvania, 2004-2010” (Open-File Report 2012-1154), documents the significant impacts on forest cover resulting from the construction of unconventional fossil fuel extraction infrastructure, particularly pipelines.<sup>2</sup> Taking Bradford and Washington Counties as the basis for its study, this report documents the massive landscape changes that are reshaping forest and farm lands in Pennsylvania through the construction of gas wells, impoundments, roads, and pipelines. The report documents the overall loss of forest habitat as well as the increase in forest fragmentation that shale gas and coalbed methane development has caused over a very short time period. In Bradford County, 0.12 percent of the county’s forest was lost to gas development, contributing to a 0.32 loss of interior forest and a gain of 0.11 percent in edge forest. In Washington County, the USGS report documented a 0.42 percent forest loss, contributing to a 0.96 percent loss of interior forest and a gain of 0.38 percent in edge forest. USGS Report at 28-29.

According to the USGS data, pipeline construction and associated road construction had the greatest effect on the increase in forest fragmentation, patchiness, and forest edge. *Id.* Of particular concern, “[t]his type of extensive and long-term habitat conversion has a greater impact on natural ecosystems than activities such as logging or agriculture, given the great dissimilarity between gas-well pad infrastructure and adjacent natural areas and the low probability that the disturbed land will revert back to a natural state in the near future (high persistence).” *Id.* at 10.

Forests play an essential role in water purification.<sup>3</sup> The relationship between forest loss, degraded water quality, and increased runoff is well-established in the scientific literature, as the USGS Report recognizes. *Id.* at 8. The Commission is well aware of the links between forest cover and water quality, as summarized by Drs. Jackson and Sweeney in the expert report submitted on the Commission’s behalf in the exploratory wells administrative hearing process.<sup>4</sup> The Jackson and Sweeney report shows that reductions in forest cover are directly correlated with negative changes in water chemistry, such as increased levels of nitrogen, phosphorus, sodium, chlorides, and sulfates as well as reduced levels of macroinvertebrate diversity. Reducing forest cover decreases areas available for aquifer recharge, increases erosion, stormwater runoff, and flooding, and adversely affects aquatic

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<sup>2</sup> Available at <http://pubs.usgs.gov/of/2012/1154/of2012-1154.pdf>

<sup>3</sup> Robert A. Smail & David J. Lewis, Forest Service, U.S. Dep’t of Agric., Forest Land Conversion, Ecosystem Services, and Economic Issues for Policy: A Review 12 (2009), available at <http://www.fs.fed.us/openspace/fote/pnw-gtr797.pdf>

<sup>4</sup> “Expert Report on the Relationship Between Land Use and Stream Condition (as Measured by Water Chemistry and Aquatic Macroinvertebrates) in the Delaware River Basin,” November 2010, available at <http://www.nj.gov/drbc/library/documents/Sweeney-Jackson.pdf>

habitats.<sup>5</sup> In Pennsylvania, researchers have correlated areas of high natural gas well density with decreased water quality, as indicated by lower macroinvertebrate density and higher levels of specific conductivity and total dissolved solids.<sup>6</sup>

**Pipeline Projects May Pass In, On, Under, or Across an Existing or Proposed Reservoir or Recreation Project Area As Designated in the Comprehensive Plan**

Any pipeline projects that pass in, on, under or across an existing or proposed reservoir or recreation project area as designated in the Comprehensive Plan must be submitted to the Commission for review under the RPP. Given the number of planned and proposed pipeline projects for which routing alternatives have been considered that would meet this criterion, the Commission must be vigilant in ensuring that pipeline project proponents are fully aware of the RPP's requirements for prospective Commission review of such projects. Preliminary maps released on the proposed PennEast pipeline route show it passing through Carbon and Bucks Counties in Pennsylvania and through Hunterdon and Mercer Counties in New Jersey, all of which are home to Comprehensive Plan areas that could be directly affected by the PennEast Pipeline project. The Commission should immediately request mapping supplements and proposed routes for the PennEast pipeline and determine whether it meets this trigger for review.

**PennEast Pipeline Will Pass Over, Under or Through Special Protection Waters and Contributing Lands Thereby Mandating DRBC Anti-Degradation Review.**

The PennEast project will cross a portion of the Delaware River designated Special Protection Waters and will cause significant disturbance on lands that directly drain to these very same reaches of River. The removal of vegetation, compaction of soils and the increased runoff that will most certainly result will contribute nonpoint source pollution loads to the Special Protection Waters of the Delaware River and therefore mandate reviews, plans and approvals that will ensure the project will not adversely impact the existing water quality of these reaches of the Delaware River. Because the PennEast project is subject to review under Section 3.8 as per above, the DRBC must ensure that the project, among other things, includes "a Non-Point Source Pollution Control Plan that controls the new or increased non-point source loads generated within the portion of the project's service area which is also located within the drainage area of Special Protection Waters."

Thank you for your attention regarding this petition. Do not hesitate to contact us with any questions.

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<sup>5</sup> State of N.J. Highlands Water Prot. and Planning Council, Ecosystem Management Technical Report 39 (2008).

<sup>6</sup> Academy of Natural Sciences of Drexel University, "A Preliminary Study of the Impact of Marcellus Shale Drilling on Headwater Streams," available at <http://www.ansp.org/research/pcer/projects/marcellus-shale-prelim/index.php>

Respectfully submitted,

A handwritten signature in blue ink that reads "Maya K. van Rossum" followed by a horizontal line.

Maya K. van Rossum  
the Delaware Riverkeeper