



October 28, 2014

Steven J. Tambini, Executive Director
Delaware River Basin Commission
25 State Policy Drive
West Trenton, NJ 08628-0360

Re: PennEast Pipeline Project Construction and Operation Within the Boundaries of the Delaware River Watershed

Dear Mr. Tambini,

Thank you for your letter dated September 29, 2014 responding to our request that the Delaware River Basin Commission (DRBC) conduct a review of the PennEast Pipeline Project.

According to your letter, DRBC held a meeting with PennEast Pipeline representatives early in September, that this was not a pre-application meeting, that there is no application pending with DRBC, that DRBC staff were told by PennEast that the project design was at a preliminary stage, and that you will conduct a DRBC review of the project if details become available that in DRBC's mind triggers review.

DRBC seems to be taking a wait and see approach to the proposed PennEast Pipeline project. Given that the DRBC has admitted to mistakes in the past regarding the way in which it conducts pipeline reviews to determine DRBC jurisdiction DRN hoped that in the face of this obviously large-scale pipeline project that DRBC would be more proactive. The information available from the PennEast Pipeline Company provides ample information to warrant and even demand that DRBC be more proactive. Indeed, on October 7, 2014 PennEast submitted a Request of Pre-Filing Review with the Federal Energy Regulatory Commission ("FERC"). This submission asks that FERC "initiate an environmental review under the National Environmental Policy Act ("NEPA") Pre-Filing Process for the greenfield natural gas pipeline facilities proposed as part of the PennEast Pipeline Project." Included as Exhibit B, PennEast included a series of detailed USGS Topographic Quadrangle maps showing the proposed route of the pipeline. These maps can be found under FERC docket no. PF15-1 (accession no. 20141007-5229). On October 10, 2014 FERC reviewed the application material and approved PennEast's request to initiate the Pre-Filing process.

It is notable that PennEast itself has decided that the only role for DRBC in the review process involves obtaining a “Hydrostatic Testing, Water Withdrawal and Discharge” docket for the project (as per page C-2 of their FERC filing), and that no other issues associated with construction of the project -- including its high level of land disturbance, waterway construction, and water quality impacts -- are to be the subject, even potentially, to DRBC review. It is not clear whether this is the impression PennEast took away from its 9/3/2014 Coordination Meeting with DRBC staff or not, but regardless, it is important that this matter be addressed and this misguided perception swiftly remedied.

Delaware River Basin Commission Applicable Legal Authorities to the PennEast 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 DRBC Rules of Practice and Procedure (“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 DRBC 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 Watershed and that therefore do not automatically require DRBC review.

Section 2.3.5 A. says that:

Except as the Executive Director may specifically direct by notice to the project owner or sponsor, or as a state or federal agency may refer under paragraph C .. a project in any of the following classifications will be deemed not to have a substantial effect on the water resources of the Basin and is not required to be submitted under Section 3.8 of the Compact:

12. 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).

But subsection 12 relating to gas transmission lines, when read in conjunction with the opening provision of 2.3.5.A, clearly contains four exceptions to the exemption that, if the stated conditions are met, trigger DRBC review:

- 1) if the Executive Director of the Commission specifically directs;
- 2) if any state or federal agency refers a project under paragraph C;
- 3) if the project in question crosses an existing or proposed reservoir or recreation area that has been incorporated into the Comprehensive Plan; and
- 4) if the project involves a significant disturbance of ground cover affecting water resources.

DRBC, in a January 30, 2012 memo titled “Reviewability of Columbia 1278 Replacement Project and TGP 300 Line,” in which it admits its failure to review these two major pipeline projects prior to their construction (and has yet to administer review to this day), provides arbitrary guidelines that inappropriately characterize when exception number 4 applies. According to the January 30 memo, the language found in RPP Article 3, Section 2.3.5.A found in subsections (6) and (15) should be used to define when there has been “a significant disturbance of ground cover affecting water resources” such that a pipeline would be subject to Section 3.8 review. These unsupported standards dramatically limit the determination of when there has been “a significant disturbance of ground cover affecting water resources.” This is an inappropriate interpretation and application of these provisions.

When applied, DRBC’s misapplication of 2.3.5.A.6 and 2.3.5.A.15 to 2.3.5.A.12 limits DRBC review to natural gas pipelines that pass through comprehensive plan areas, that involve the draining, filling or altering of marshes or wetlands in excess of 25 acres, that result in a change in land cover on over three square miles of a major ground water infiltration area, that are specifically noticed by the DRBC Executive Director or referred for review by a state or federal agency under paragraph C of the section. This interpretation is an artificial legal manipulation of the RPP that cannot hold up in the courts of legal or public opinion.

If in fact 2.3.5.A.6 and 2.3.5.A.15 were to be used as the determining factor for the pipeline review exception then the RPP provisions would have been explicitly written as such, or incorporated by reference. However, A.6 and A.15 were clearly written as discrete, separate and co-equal exceptions to the exclusion from review, not as further limitations on the exceptions crafted for pipelines found in 2.3.5.A.12.

Importantly, the DRBC cannot point to a single project where its jurisdiction has been exercised pursuant to the “significant disturbance” language in RPP Section 2.3.5 A.12, and consequently cannot point to a single project where a determination was made that implicated RPP

Sections 2.3.5 A.6 or A.15 in that context. Finally, if DRBC indeed interprets that the elements of 2.3.5.A.6 and 2.3.5.A.15 are relevant to the application of RPP Section 2.3.5 A.12, there are a multitude of other pipeline, communications line, water line, and power line projects it would have, under these terms, been required to take jurisdiction over. For example, the recently constructed NorthEast Upgrade Project should have triggered review pursuant to this flawed interpretation of the RPP but failed to do so. These recently conjured standards are post-hoc interpretations that fail to cite any rational basis in fact or law for their application.

Also of significant legal relevance are the DRBC Special Protection Waters Regulations – because Section 3.8 review does clearly apply to the PennEast Pipeline Project the Special Protection Waters regulations clearly apply. In 1992, in response to a petition filed by the Delaware Riverkeeper Network, the DRBC launched the Special Protection Waters (“SPW”) program, which established regulations to protect existing water quality in the upper and middle sections of the non-tidal Delaware River, 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 the Delaware Riverkeeper Network, in 2008 the DRBC 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.

Article 3 of the Water Code, Section 3.10.3.A.2, establishes the strict anti-degradation standard that the DRBC applies to Special Protection Waters of the Watershed: “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 “[p]rojects 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.”

PennEast is Subject to DRBC Jurisdiction and Docket Review Resulting from its Substantial Land Disturbance, Its Impact on Comprehensive Plan Areas, and its Impact on Special Protection Waters, among others

The Pre-Filing review application submitted by PennEast Pipeline Company to the Federal Energy Regulatory Commission provides ample information to support a DRBC determination that its review and a DRBC docket should be mandated for at least the following reasons:

- the PennEast Pipeline project will cross Comprehensive Plan areas and
- the PennEast Pipeline project will cause a significant disturbance of ground cover affecting water resources.

The PennEast Pipeline project is a greenfields project that will, in total, stretch for 108 miles in order to accommodate a 36 inch pipeline intended to service shale gas extraction in both the Marcellus and Utica shales. Roughly 85% of this proposed pipeline sits within the boundaries of the Delaware River

watershed. The project also includes a new compressor station in Kidder Township, Carbon County, PA within the boundaries of the Delaware River watershed. The project will cross among many waterbodies, a section of the Delaware River and is watershed protected by the SPW regulations.

Comprehensive Plan Area Jurisdiction

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 DRBC for review under the RPP as noted above. The PennEast Pipeline project, by the Company's own public documents submitted to FERC, will be crossing Comprehensive Plan areas, and thus clearly triggers DRBC jurisdiction:

- The pipeline will have to cross Beltzville Lake, associated with Beltzville Dam which is included in the DRBC Comprehensive Plan pursuant to Resolution 62-4.
- The pipeline cuts through Hickory Run State Park, a Comprehensive Plan Area pursuant to resolution 2000-22.
- The Pipeline cuts through Weiser State Forest, a Comprehensive Plan Area pursuant to resolution 2000-22.
- The pipeline cuts through Beltzville State Park, a Comprehensive Plan Area pursuant to resolution 2000-22.
- The pipeline cuts through the Delaware & Raritan State Park which is a Comprehensive Plan Area pursuant to resolution 91-19.

These are just the Comprehensive Plan areas easily discernible from the maps already released by the PennEast Pipeline Company, which are readily available to the DRBC.¹ Therefore, DRBC jurisdiction clearly applies.

Significant Disturbance Jurisdiction

Natural gas pipeline projects both at the individual project level, and when considered cumulatively, have the potential to cause substantial effects to the water resources of the Watershed. These effects include impacts to surface water and ground water quality resulting from the direct effects of pipeline construction on both terrestrial and aquatic ecosystems as well as the longer-term effects of right-of-way maintenance.

Among other impacts, pipeline projects cause direct pollution through sedimentation and accidental releases of drilling muds; exacerbate erosion; result in the removal of riparian vegetation and the loss of forest lands; contribute to forest fragmentation; and adversely affect wetlands and marshes. No matter what pipeline construction technique is used, there is vegetation loss associated with clearing stream banks. 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

¹ There are other Comprehensive Plan areas that may also be impacted by the project, such as the Lackawanna State Forest, included in the Comprehensive Plan pursuant to resolution 2000-22, which must also be investigated.

the stream more susceptible to erosion events, as the natural barrier along the stream bank has been removed.

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.² 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, which can be up to 80 years.

A report 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), details the significant impacts on forest cover resulting from the construction of unconventional fossil fuel extraction infrastructure, particularly pipelines.³ 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% 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% 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.⁴ 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 DRBC 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 DRBC’s behalf in the exploratory wells administrative hearing process.⁵ The Jackson and Sweeney report shows that reductions in forest cover are directly correlated with negative changes in water

² Nels Johnson, et al., *Natural Gas Pipelines*, THE NATURE CONSERVANCY, 1 (December 2011) at 6.

³ Available at <http://pubs.usgs.gov/of/2012/1154/of2012-1154.pdf>

⁴ 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>

⁵ “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>

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 habitats.⁶ 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.⁷

In addition to direct impacts to surface water quality associated with natural gas pipeline projects that cross multiple streams and rivers, pipeline projects often cause significant impacts to marshes and wetlands, whether contiguous to waterways crossed by pipeline construction or not. Pipeline construction projects may block surface water flows or change surface water flow direction in wetlands and marshes through dredging, sedimentation and spoil deposition, and soil compaction during construction.⁸ Pipeline construction projects may also adversely affect groundwater flows and the hydrologic regime, leading to dewatering and other changes; these effects are likely to persist well beyond the project construction stage.

As with rights-of-way through forest habitat, maintaining rights-of-way through wetlands areas can cause issues of invasive species and a shift in vegetation from native to non-native species. Given the recognized importance of protecting wetlands and marshes to ensure water quality protection as well as to protect recharge areas that help ameliorate flooding, it is vital that the DRBC take jurisdiction over natural gas pipeline projects not only because of the loss of forest cover and the direct impacts of stream crossings but also because of impacts to wetlands and marshes from pipeline construction.

Given what we know about pipeline construction and operation and given what we know about the specifically proposed PennEast project, the PennEast Pipeline project will most meet the threshold of “significant disturbance of ground cover affecting water resources,” as well as the DRBC’s inappropriate and artificial threshold of having to impact at least 25 acres of wetlands to overcome the exemption:

- The overwhelming majority of the 108 miles of this project, estimated at approximately 87%, falls within the boundaries of the Delaware River watershed – the right of way will be 50 to 100 feet wide, or larger, depending on whether the Company’s verbal assertions at public meetings or common, modern pipeline practices are employed.
- The company has already identified 33 wetland complexes and 60 waterbodies that may be affected by the project.

⁶ State of N.J. Highlands Water Prot. and Planning Council, Ecosystem Management Technical Report 39 (2008).

⁷ 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>

⁸ See, e.g., “Effects of Pipeline Construction on Wetland Ecosystems: Russia-China Oil Pipeline Project (Mohe-Daqing Section), Xiaofei Yu *et al.*, *Ambio*, July 2010, available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3357716/>; see also Lucie Levesque *et al.*, Review of the effects of in-stream pipeline crossing, *Environ. Monit. Assess.* 123: 395-409 (2007).

- The PennEast pipeline project involves significant construction through a multitude of state gamelands on the Pennsylvania side of the River that are mostly forested. The clearing of the right of way that would cut through these forests will most certainly result in a significant level of land disturbance that will damage the quality of the water resources of the Delaware River Basin. The clear cutting across the New Jersey side of the River is also largely through preserved lands and natural areas. The damage and disturbance of the pipeline construction activity will have near term and long-term impacts on water resources on both the Pennsylvania and New Jersey sides of the River and watershed.
- The project cuts across the Lehigh above the Francis E. Walter Dam, therefore, any water quality impacts will affect the quality in this impoundment. Water quality impacts in waterway impoundments have cumulative and cascading impacts. Given that the Francis E. Walter Dam is a Comprehensive Plan area, the significant disturbance of ground cover, and river cut, upstream will have a direct and indirect impact on this Comprehensive Plan area.

Special Protection Waters Jurisdiction and Executive Director Jurisdiction.

Because the PennEast Pipeline project meets the two thresholds of crossing through Comprehensive Plan Areas and imposing a significant disturbance of groundcover that will affect water resource, and therefore is subject to Section 3.8 review, the project also must be subject to, and meet the requirements of the SPW regulation. The portion of the Delaware River to be crossed is Special Protection Waters, thereby raising this additional high level protection obligation of the DRBC.

Given that the reach of the River to be crossed, and a portion of our watershed to be impacted is SPW, there exists a widespread expectation and hope that the Executive Director would be eager to exercise his authority to “specially direct by notice to the project owner or sponsor” that this project should be, and therefore will be, subject to DRBC jurisdiction, docket and review.

In addition, this is a massive greenfields project crossing an estimated 60 waterbodies and 33 wetland complexes most of which are in the Delaware River watershed and include SPW reaches of our precious Delaware River. The significant potential for adverse impact and harm to the water resources of the basin and the communities that depend upon them is clear and strikingly obvious given the high level of harm imposed and experienced with other recent pipeline projects. Use of the Executive Director authority to direct review is clearly appropriate.

The Delaware Riverkeeper Network respectfully offers that the jurisdiction of the Delaware River Basin Commission over the PennEast Pipeline project is clearly appropriate at this time. We urge the DRBC to contact the PennEast Pipeline Company to make clear that the DRBC will be exercising its full authority over this new potential scar through our watershed and communities.

Sincerely,



Maya K. van Rossum
the Delaware Riverkeeper