



*For Immediate Release:*  
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## **Delaware River Basin Commission Receives Petition Asserting It Must Exercise Jurisdiction Over Pipelines**

*West Trenton, NJ:* The Delaware River Basin Commission was served with a formal Petition today, asserting that the regulatory body has an obligation to exercise its jurisdiction over the proliferation of pipelines being constructed and proposed within the boundaries of the Delaware River watershed. According to the Petition, pipelines are a significant source of waterway degradation and, according to the Delaware River Basin Compact and DRBC's Rules of Practice and Procedure, are subject to DRBC jurisdiction, docketing and oversight. The Petition was served during the public comment period of the September 12<sup>th</sup> DRBC public meeting by Maya van Rossum, the Delaware Riverkeeper, on behalf of the membership organization the Delaware Riverkeeper Network.

"Pipelines that have been installed have already proven our point, that installation of pipelines, individually and collectively, is a hazard for the Delaware River, its streams, communities and ecosystems. With nearly a dozen new pipelines or expansions proposed to cross within the watershed boundaries in order to serve the shale gas drilling industry, we are on the cusp of a new and yet-to-be-recognized environmental hazard for our communities," says **Maya van Rossum, the Delaware Riverkeeper**. "The level of land disturbance and in-water construction the pipelines will require, the volumes of methane that pipelines are known to leak, the noisy and polluting air compressor stations pipelines bring, and the many dozens of violations recent pipelines have imposed on our environment

and communities, have raised a red flag of concern for citizens and legislators alike,” van Rossum added.

**Jane Davenport, Senior Attorney for the Delaware Riverkeeper Network**, points out: “That the Commission has thus far refused to take jurisdiction over pipeline projects involving dozens of wetlands and stream crossings while reviewing relatively minor water withdrawals for pipeline testing is like an emergency room doctor focusing on bandaging a patient’s stubbed toe rather than preventing his imminent heart attack. The Commission must review the individual and cumulative impacts of these massive projects on the front end, before they irreversibly degrade our forests and streams.”

Before the July DRBC meeting, thirteen state legislators, the Pike County Commissioners, and thirty-two organizations including the Delaware Riverkeeper Network wrote letters urging the DRBC to exercise jurisdiction over pipelines.

According to the Petition, DRBC is obliged to exercise its jurisdiction and require DRBC approval for any and all pipelines passing through the watershed. The Delaware River Basin Compact, which provides for the mission and mandates of the DRBC, obligates the Commission to review all projects with substantial effects on the water resources of the Basin for consistency with their Comprehensive Plan. “The level of land disturbance, and the invasiveness of the tributary and wetland crossings associated with these pipelines are significant and would most certainly have an impact on the water resources of the Delaware River Basin. There are no limitations or exceptions within the DRBC Compact or its Rules of Practice or Procedure that would exempt pipelines from DRBC jurisdiction,” van Rossum says. Furthermore, according to the Petition, pipelines proposed and in general, individually and cumulatively:

- will include “significant disturbance of ground cover affecting water resources;”
- have already been referred to the DRBC by the National Park Service for action under the Rules of Practice and Procedure;
- will affect reaches of the Delaware River designated as Special Protection Waters, which, according to DRBC regulations, cannot be degraded;
- could “pass in, on, under, or across ... recreation project areas as designated in the Comprehensive Plan” of the DRBC such as the Delaware Water Gap National Recreation Area.

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September 12, 2012

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 All Natural Gas Pipeline Projects**

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), 1) to exercise its jurisdiction under the Compact and the current Rules of Practice and Procedure (RPP) over natural gas pipeline projects crossing any portion of or any waterway of the Delaware River Basin (Basin) and 2) to amend the RPP to require that **all** natural gas pipeline construction projects within the Basin be submitted for DRBC review for a determination as to whether such projects will impair or conflict with the Comprehensive Plan.

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.

If the Commission ever promulgates legally defensible final regulations establishing a system for permitting shale gas extraction operations in the Delaware River Basin, there will also be a massive propagation of gathering lines servicing well pads and connecting them to the natural gas transmission and distribution pipeline networks. Whether considered individually or cumulatively, these pipeline projects will 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:

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

- TGP 300 Line Upgrade Project
- Columbia 1278k Replacement
- ESNG Eastern Shore Expansion
- ESNG New Castle Project

#### **Seven Pipeline Projects Currently Planned To Go Through the Basin**

- DTE Bluestone Pipeline
- TGP Northeast Upgrade Project
- ESNG Greenspring Project
- Transco Northeast Supply Link
- Transco Philadelphia Lateral
- Transco Mainline “A” Replacement
- Texas Eastern Appalachia to Market Expansion 2014 (TEAM 2014) Project

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

- Constitution Pipeline
- Transco Leidy Southeast Expansion
- Sonoco Mariner East Project
- Commonwealth Pipeline
- Transco Northeast Connector
- NiSource East Side Expansion 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.

#### **Applicable Compact, Water Code, and RPP Provisions**

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.

However, this section of the RPP is not the only source of jurisdictional authority for the Commission to take jurisdiction over natural gas pipeline projects and require that such projects be reviewed prospectively for consistency with the Comprehensive Plan. Other sources of jurisdictional authority over natural gas pipeline projects include the following RPP sections:

- Article 3, Section 2.3.5.B(5) (“Deepening or widening of existing stream beds . . . or the dredging of the bed of any stream or lake and the disposal of the dredged spoil, where the nature or location of the project would affect the quantity or quality of ground or surface waters, or fish and wildlife habitat”);
- Article 3, Section 2.3.5.B(6) (“Discharge of pollutants into surface or ground waters of the Basin”);
- Article 3, Section 2.3.5.B(7) (“[P]ipelines and electric power and communication lines”);
- Article 3, Section 2.3.5.B(9) (“Projects that substantially encroach upon the stream or upon the 100-year flood plain of the Delaware River or its tributaries”);
- Article 3, Section 2.3.5.B(10) (“Change in land cover on major ground water infiltration areas”);
- Article 3, Section 2.3.5.B(13) (“Draining, filling, or otherwise altering marshes and wetlands”);
- Article 3, Section 2.3.5.B(18) (“Any other project that the Executive Director may specially direct by notice to the project sponsor or land owner as having a potential substantial water quality impact on waters classified as Special Protection Waters”).

**I. 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 all natural gas pipeline projects currently being proposed to cross portions of the Delaware River watershed and/or its waterways for four reasons. First, these projects meet the exception to the exemption articulated in the RPP in that both individually and cumulatively they involve significant disturbance of ground cover affecting water resources. Second, these projects may meet the exception to the exemption articulated in the RPP – in that they may pass in, on, under or across an existing or proposed reservoir or recreation project area as designated in the Comprehensive Plan. Third, other sections of the RPP that enumerate types of projects that must automatically be submitted to the Commission for review provide the Commission with authority to take jurisdiction over natural gas pipeline projects. Finally, the National Park Service has already referred natural gas pipeline projects to the Commission for action under the RPP.

**A. Existing and Currently Proposed 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 currently proposed pipeline projects for review under the Compact for consistency with the Comprehensive Plan.

Currently proposed pipeline projects in the Delaware River Basin must cross waterways both large and small; most projects must cross many waterways. Many of the tributary crossings will involve in-stream excavation that causes sedimentation and other pollution inputs. No matter what pipeline construction method and stream crossing 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 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.<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, which can be up to 80 years.

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

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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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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 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>

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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>

<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>



**B. 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.

**C. Other Sections of the RPP Provide the Commission with Authority to Assert Jurisdiction over Natural Gas Pipeline Projects**

The provisions of RPP Article 3, Section 2.3.5.A(12) notwithstanding, a number of other RPP provisions defining projects that are presumed to have or potentially have substantial effects on the water resources of the Basin support the Commission's assuming jurisdiction over all natural gas pipeline projects to determine whether such projects impair or conflict with the Comprehensive Plan.

Natural gas pipeline construction projects implicate many of the impacts enumerated in RPP Article 3, Section 2.3.5.B covering projects that must by default be submitted for Commission review. For example, stream crossings, whether via open wet cut or dry ditch methods, involve actions that may deepen or widen stream beds and/or require dredging and the disposal of dredged spoil materials. Either individually or cumulatively, such stream crossings may have impacts on the quantity or quality of ground or surface waters and on fish and wildlife habitat. *See* RPP Article 3, Section 2.3.5.B(5) ("Deepening or widening of existing stream beds . . . or the dredging of the bed of any stream or lake and the disposal of the dredged spoil, where the nature or location of the project would affect the quantity or quality of ground or surface waters, or fish and wildlife habitat").

The discharge of pollutants from pipeline construction clearly implicates RPP Article 3, Section 2.3.5.B(6) ("Discharge of pollutants into surface or ground waters of the Basin"). Pipeline construction projects discharge pollutants both in the routine course of construction as well as through accidents. Studies documenting the effects of stream crossing construction on aquatic ecosystems identify pollution discharges of sediment as the primary stressor from pipeline construction on river and stream ecosystems.<sup>7</sup> During construction of pipeline stream crossings, discrete peaks of high suspended sediment concentration occur during activities such as blasting, trench excavation, and backfilling.<sup>8</sup> The excavation of streambeds can generate persistent plumes of sediment concentration and turbidity.<sup>9</sup> In addition to the stream crossing construction activity itself, new road construction associated with pipeline construction also increases the risk of erosion and

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<sup>7</sup> Scott Read, *Effects of Sediment Released During Open-cut Pipeline Water Crossings*, Canadian Water Resources Journal, 1999, 24: (3) 235-251.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

sedimentation.<sup>10</sup> Pollutant discharges may also result from unintended discharges of drilling muds such as when blowouts occur during horizontal directional drilling to install pipelines under streambeds.<sup>11</sup>

This sedimentation has serious consequences for the benthic invertebrates and fish species whose vitality is crucial for healthy aquatic ecosystems. Pipeline construction projects have been documented to cause reductions in benthic invertebrate densities, changes to the structure of aquatic communities, changes in fish foraging behavior, reductions in the availability of food, and increases in fish egg mortality rates.<sup>12</sup> Heavy rains during two tropical storms in August and September 2011 caused extensive failures to erosion and sediment controls on pipelines under construction in north central Pennsylvania, resulting in sedimentation plumes in nearby waterbodies.<sup>13</sup> Deposited sediment from construction activities can also fill in the interstitial spaces of the streambed, changing its porosity and composition, and thereby increasing embeddedness and reducing riffle area and quality.<sup>14</sup> Furthermore, deposited sediment has the potential to fill in pool areas and reduce stream depth downstream of the construction area.<sup>15</sup>

Further, the open trench pipeline crossings raise risks of serious water contamination if there is a rupture after the pipe is in place, discharging into the stream hydro-carbon laced liquids such as benzene that are part of the gas being delivered by the pipeline. Also, open trench cuts can alter both stream bank and stream bed stability and increase the likelihood of scouring and exposing the buried pipe. The open trench cut method is likely to set the pipeline shallowly enough that exposure by scour is a significant threat. Exposure of the pipeline raises a greater risk of pipeline damage, breakage and pollution; with pipeline breakage resulting in the catastrophic discharge of its contents including hydrocarbons into the natural stream system. Stream scour can occur in depths up to 3 times that of the maximum river floodwater depth.<sup>16</sup>

It is not clear how the RPP can be read to reconcile the provisions of RPP Article 3, Section 2.3.5.B(7), requiring submission of projects including “pipelines and electric power and communication lines” with the generalized exemption of RPP Article 3, Section 2.3.5.A(12). Nevertheless, given that individually and cumulatively all existing and proposed natural gas pipelines

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<sup>10</sup> *En Banc* Hearing of the Pennsylvania Public Utility Commission on Jurisdictional Issues Related to Marcellus Shale Gas Development, Docket No. I-2010-2163461.

<sup>11</sup> See, e.g., “1,500 gallons of drilling mud spills into Pa. waterways: 3 accidents in 3 weeks during construction of pipeline,” Aug. 10, 2011, available at [http://www.pressconnects.com/article/20110810/NEWS01/108100412/1-500-gallons-drilling-mud-spills-into-Pa-waterways?nclick\\_check=1](http://www.pressconnects.com/article/20110810/NEWS01/108100412/1-500-gallons-drilling-mud-spills-into-Pa-waterways?nclick_check=1)

<sup>12</sup> James Norman, et al., *Utility Stream Crossing Policy*, ETOWAH Aquatic Habitat Conservation Plan, July 13, 2008, 9-10.

<sup>13</sup> Craig R. McCoy and Joseph Tanfani, *Similar Pipes, Different Rules*, PHILADELPHIA INQUIRER, available at, [http://articles.philly.com/2011-12-12/news/30507185\\_1\\_hazardous-materials-safety-administration-pipeline-safety-rules](http://articles.philly.com/2011-12-12/news/30507185_1_hazardous-materials-safety-administration-pipeline-safety-rules)

<sup>14</sup> Read at 235-251.

<sup>15</sup> Norman at 9-10.

<sup>16</sup> Hydrologic and Environmental Rationale to Bury Gas Pipelines using Horizontal Directional Drilling Technology at Stream and River Crossings, expert report submitted prepared for the Delaware Riverkeeper Network by Hydroquest, June 12, 2012.

in the Basin satisfy the exception to the exemption stated in RPP Article 3, Section 2.3.5.A(12), we believe that Article 3, Section 2.3.5.B(7) confirms and reinforces that the Commission has jurisdiction under the current RPP to require pre-construction review of all natural gas pipeline projects, in light of these pipelines' substantial effects on the water resources of the Basin whether through significant disturbance of ground cover affecting water resources or otherwise.

It is very clear, however, that both existing and proposed natural gas pipeline projects fall within the scope of RPP Article 3, Section 2.3.5.B(9) ("Projects that substantially encroach upon the stream or upon the 100-year flood plain of the Delaware River or its tributaries"). **All** of the natural gas pipeline projects listed above that are already constructed, planned for construction, or in the early stages of planning for construction in whole or in part within the Basin substantially encroach upon the stream or 100-year flood plain of one or more tributaries to the Delaware River. In some cases, these projects substantially encroach upon the stream or the 100-year flood plain of the Delaware River itself.

As detailed above, the recent USGS report studying land use changes resulting from shale gas extraction (as well as coal bed methane extraction) demonstrates that pipeline construction is responsible for the lion's share of the loss of forest cover and conversion of forest and farm lands to industrial uses in areas that have experienced intensive unconventional fossil fuel development. This loss of forest cover implicates the Commission's jurisdiction under RPP Article 3, Section 2.3.5.B(10) ("Change in land cover on major ground water infiltration areas").

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. These impacts implicate RPP Article 3, Section 2.3.5.B(13) ("Draining, filling, or otherwise altering marshes and wetlands"). 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.<sup>17</sup> 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 Commission 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.

Finally, pipeline construction projects that occur in or cross through the portions of the Delaware River Basin that have been designated as Special Protection Waters areas subject to the anti-

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<sup>17</sup> 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).

degradation requirements of the Water Code implicate Article 3, Section 2.3.5.B(18) (“Any other project that the Executive Director may specially direct by notice to the project sponsor or land owner as having a potential substantial water quality impact on waters classified as Special Protection Waters”). The Executive Director has the authority under this section of the RPP to require pipeline projects in Special Protection Waters areas to be submitted for Commission review.

#### **D. The National Park Service Has Already Referred Natural Gas Pipeline Projects to the Commission for Action**

RPP Article 3, Section 2.3.5.A specifies two independent methods by which a project may be taken out of Category A (no Commission review required) and placed into Category B (Commission review required). First, the Executive Director may specially direct by notice to the project owner or sponsor that a project must undergo Commission review. Second, RPP Article 3, Section 2.3.5.A specifies that state or federal agencies may refer projects otherwise exempted from review to the Commission for action, pursuant to RPP Article 2.3.5.C: “Whenever a state or federal agency determines that a project falling within an excluded classification (as defined in paragraph A. of this section) may have a substantial effect on the water resources of the Basin, such project may be referred by the state or federal agency to the Commission for action under these Rules.”

In a May 26, 2010 letter to Ms. Collier, Superintendent Sean McGuiness of the National Park Service referred to the Commission, under RPP Article 3, Section 2.3.5.C, “all projects that involve drilling of natural gas wells that are not already subject to project review under the Commission’s regulations” and the EDD. “This referral includes both ‘exploratory’ or ‘test’ wells, and wells completed in geologic strata other than shale, and it extends to all aspects of natural gas development that involves land disturbance or water use from the proposed construction of exploratory wells to gas distribution pipelines” (emphasis added). The project referral letter states: “It is important to understand all the potential and cumulative impacts of large scale changes in land use associated with natural gas development, from test wells to pipelines, throughout the watershed on the water resources of the Basin” (emphasis added).

This letter is an explicit referral by the National Park Service of pipeline projects to the Commission for review. Accordingly, the Commission must act on this referral to take jurisdiction over natural gas pipeline projects. RPP Article 3, Section 2.3.5C does not give either the Executive Director or the Commission the discretion to accept or decline the referral; rather, it clearly states that a project may be referred “to the Commission for action under these Rules” (emphasis added). The plain language of RPP Article 3, Section 2.3.5A gives both the Executive Director and a state or federal agency equal power to determine that a project otherwise exempt from review must be submitted to the Commission under Section 3.8. Accordingly, the Commission is already obligated by the National Park Service referral letter to take jurisdiction over and review natural gas pipeline projects under the Compact and the RPP.

#### **II. The Commission Must Amend the RPP to Remove the Exemption for Natural Gas Pipeline Projects and Require that All Natural Gas Pipeline Projects Be Submitted for Commission Review**

The Commission’s primary and overriding obligation under the Compact is to ensure that, under Article 3.8, projects with the potential for substantial effects on the water resources of the Basin are submitted for Commission review for consistency with the Comprehensive Plan. As shown above,

the Commission is obligated by Article 3.8 of the Compact and the current RPP to take jurisdiction over all proposed natural gas pipeline projects within the Basin.

Nevertheless, to avoid ambiguity and to provide for the appropriate review and oversight of all natural gas pipeline projects (both gathering and transmission) being proposed to cross waterbodies within the bounds of the Basin, the Commission should revise the RPP to remove natural gas pipeline projects from the list of projects otherwise exempt from Commission review, clarify, and provide that all natural gas pipeline projects by default are required to be submitted for Commission review. This revision is necessary to ensure that the Commission's review is consistent with the its obligations under Compact Article 3.8 to ensure that projects with substantial effects on the water resources of the Basin do not substantially impair or conflict with the Comprehensive Plan. The Commission must grant DRN's petition to revise the RPP for two reasons.

First, natural gas pipeline projects have substantial effects on the water resources of the Basin during their construction and maintenance, including through land disturbance, change in forest cover and land use, waterway crossings, and wetlands impacts. The Commission must take jurisdiction over such projects and undertake a careful review of each project's consistency with the Comprehensive Plan in order to meet the requirements of Section 3.8 of the Compact. Second, because natural gas pipeline projects have the ability to degrade Special Protection Waters (SPW), the Commission must revise the RPP to provide for automatic review of such projects to ensure that the anti-degradation standards applicable to SPW are met.

**A. Natural Gas Pipeline Projects Have Substantial Effects On Water Resources**

As detailed above, natural gas pipeline projects both at the individual project level and when considered cumulatively will have substantial effects to the water resources of the Basin. 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. Given the scope and scale of such impacts, the Commission is obligated under Article 3.8 of the Compact to take jurisdiction over natural gas pipeline projects to consider whether these projects may be approved as consistent with the Comprehensive Plan, approved only as modified to ensure no impairment to the Comprehensive Plan, or disapproved where such projects would substantially impair or conflict with the Comprehensive Plan. The Commission should revise the RPP to provide for the clear assertion of Commission authority to approve or disapprove natural gas pipeline projects.

**B. Natural Gas Pipeline Projects May Degrade Special Protection Waters**

The entire non-tidal Delaware River is designated as Special Protection Waters and subject to the strict anti-degradation requirements of the Water Code. As detailed above, natural gas pipeline projects will have both individual and cumulative impacts that are most certain to degrade water quality in Special Protection Waters portions of the Basin. Given the Commission's mandate to

ensure that Special Protection Waters are protected from degradation – a mandate not shared by state or federal agencies – the Commission must revise the RPP to ensure that all natural gas pipeline projects that may affect SPW are subject to Commission review to ensure that the strict anti-degradation standards of the Water Code are met.

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Maya K. van Rossum', with a long horizontal flourish extending to the right.

Maya K. van Rossum,  
the Delaware Riverkeeper