



July 31, 2017

Ed Muzic
Section Chief
Waterways & Wetlands Program
Southcentral Region
Pennsylvania Department of Environmental Protection
909 Elmerton Avenue
Harrisburg, PA 17110

By email to emuzic@pa.gov

***RE: Water Obstruction and Encroachment Applications:
E06-718: Reading Area Water Authority (Berks County)***

Dear Mr. Muzic:

The Delaware Riverkeeper Network (DRN), a private non-profit organization, champions the rights of our communities to a Delaware River and tributary streams that are free-flowing, clean, healthy, and abundant with a diversity of life. DRN has nearly 20,000 members throughout the Delaware River Watershed including residents of Birdsboro and Berks County.

The Reading Area Water Authority (RAWA) is proposing to construct and maintain a 16-inch water main permanently impacting 190 square feet of Hay Creek (CWF, MF), 60 square feet of Exceptional Value Wetlands, 1,953 square feet of Angelica Creek (CWF, MF), 4.5 square feet of an UNT to Schuylkill River (WWF, MF), 10.5 square feet of a second UNT to the Schuylkill River (WWF, MF), 9 square feet of a third UNT to Schuylkill River (WWF, MF), and 15.75 square feet of a fourth UNT to Schuylkill River (WWF, MF). This work is all for the purpose of providing cooling water to the proposed Birdsboro Power facility in Birdsboro, PA.

Water Dependency

This water line is proposed specifically to supply the proposed Birdsboro Power LLC power plant. RAWA should be required to provide statement of water dependency. No part of this pipeline of the power plant it is proposed to serve is water dependent. A water dependent use is one that can only be conducted on, in, over, or adjacent to the water. The power plant proposes to secure water for cooling from RAWA. Discharged effluent will be directed to the Birdsboro Municipal Authority's (BMA's) wastewater treatment plant (WWTP). The Birdsboro Power facility, as proposed, along with this water lines, transmission line and

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natural gas pipeline, can be located anywhere. No public interest is served by permitting these structures. In fact, the public's interest is harmed by permitting these structures.

Need for Single and Complete Project Review

The Pennsylvania Department of Environmental Protection (PADEP) should be comprehensively considering all phases of construction of the power plant and its appurtenant structures, including this water line, and the cumulative environmental impacts, as a single and complete project. Instead, the proposed power plant and its appurtenant structures are being considered separately. This project has been segmented, even though those segments depend upon other phases and do not have independent utility. All phases of this project and their impacts should be considered together and cumulatively. Underscoring the need to consider the power plant and its appurtenant structures as a single and complete project is the fact that this water line will only be constructed if the power plant is constructed.¹

DRN has submitted in the past various considerations to take into account about these projects in regard to segmentation and related pipeline projects. It is important and critical with such a proposed build out of pipelines in the Commonwealth to move natural gas abroad and to other markets, and with FERC's track record of this improper segmentation as evidenced in successful litigation brought by DRN, that DEP also consider cumulative environmental impact of the power plant and its appurtenant infrastructure as part of the state's permitting and certification process. The court held that the FERC violated NEPA by: "(1) segmenting its environmental review of the Northeast Upgrade Project – i.e., failing to consider the Northeast Upgrade Project in conjunction with three other connected, contemporaneous, closely related, and interdependent Tennessee Gas pipeline projects – and (2) failing to provide a meaningful analysis of the cumulative impacts of these projects to show that the impacts would be insignificant" (*Delaware Riverkeeper Network, et. al. v. Federal Energy Regulatory Commission, Tennessee Gas Pipeline Company*). It is critical that DEP use all regulatory measures in its authority to consider the wetlands and stormwater impacts through Chapter 102, Chapter 105 and Chapter 106 regulations.

Alternatives Analysis

As part of this permit application, RAWA should prepare an Alternatives Analysis that focused on how environmental impacts will be avoided or minimized. The Alternatives Analysis must be environmentally based and include a "no impact" alternative. For example, because the proposed power plant is not water dependent, or even dependent on location in Birdsboro, RAWA's analysis of alternatives should be required to look at construction of the power plant at a location that does not require no wetland or waterway crossing. In addition, RAWA's analysis of alternatives should include an alternative in the proposed power plant withdraws its water supply directly from the Schuylkill River.

Floodplain impacts

Construction of the proposed power plant requires filling within the 100-year regulatory floodplain, specifically in the flood fringe to raise the land surface by 4 feet for the entire footprint of the power plant. The final grade is intended to be at least 1 foot above the regulatory flood elevation. DRN estimates that building the power plant will require that a minimum of 600,000 cubic feet of fill be placed in the Schuylkill River's floodwaters. This development within the 100-year regulatory floodplain will exacerbate flooding in the vicinity of the project site as well as downstream. Past flooding in Birdsboro has been attributed to backup of the Hay Creek from high stages of the Schuylkill River. The proposed fill on this site will only exacerbate the issue of Hay Creek backup during high Schuylkill flows.

The impact that the proposed floodplain filling will have on flooding in Birdsboro, due to more frequent backup of the Hay Creek from high stages of the Schuylkill River, should be considered in review of the proposed RAWA water line which includes installation and maintenance of at least one fire hydrant in the floodplain of the Hay Creek.

¹ Weld, T.L. 24 Feb 2017. Letter to Nicholas T. Pyo, PADEP Southcentral Regional Office

Wetlands, Waterways and Buffer Impacts

RAWA's water line will likely result in significant impacts to Hay Creek and Angelica Creek as well as to many small unnamed tributaries to the Schuylkill River. DRN notes that the Hay Creek is on the Pennsylvania Fish and Boat Commission's Wild Trout List due to the presence of naturally reproducing brown trout. As such, all wetlands in an along the floodplains of the Hay Creek are classified as Exceptional Value (EV) and cannot be degraded. RAWA proposes permanently impacting 60 square feet of EV wetlands. DRN believes the impact will likely be larger and degrading, and therefore should not be permitted. The practice of indiscriminant clearing of vegetation and construction techniques commonly used in and around the wetlands through which water lines pass results in permanent alteration in the kind and quality of wetland habitat.

Sediment from construction activities is also likely to result in waterway and wetland degradation. Deposited sediment will fill in the interstitial spaces of the streambed, changing its porosity and composition, and thereby increasing embeddedness and reducing riffle area and quality. Furthermore, deposited sediment has the potential to fill in stream pool and floodplain areas and reduce stream depth downstream of the construction area. In turn this can exacerbate future flooding impacts.

Studies documenting the effects of stream crossing construction on aquatic ecosystems identify sediment as the primary stressor for construction on river and stream ecosystems. During pipeline stream crossing construction, discrete peaks of high suspended sediment concentration occur during activities such as blasting, trench excavation, and backfilling. The excavation of streambeds can generate persistent plumes of sediment concentration and turbidity. This sedimentation has serious consequences for the benthic invertebrates and fish species whose survival is crucial for healthy aquatic ecosystems. There have been documented 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. In addition to the stream crossing construction activity itself, the associated new road construction increases the risk of erosion and sedimentation.

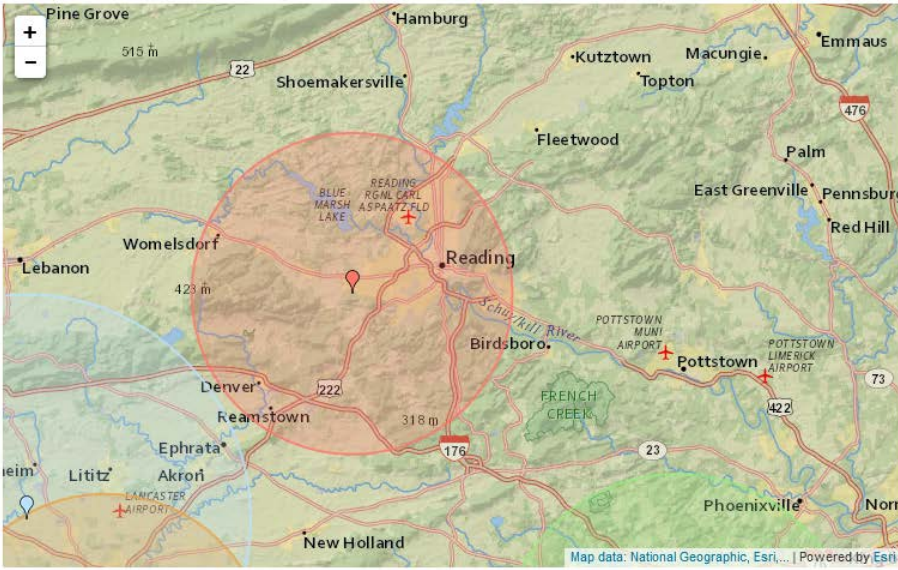
Earthquake Risk

RAWA must also show how it will respond to earthquake risk. Peak horizontal ground acceleration (PHGA) is the rate in change of motion of the earth's surface during an earthquake as a percent of the established rate of acceleration due to gravity. PHGA values for the path of the proposed water line range are approximately 14-percent, values that correspond to earthquakes that can cause significant building damage.² Earthquakes can and have occurred in the vicinity of the proposed water line, including in the Flying Hills area, as well as the vicinity of the proposed power plant (see images below).³

² Pennsylvania Emergency Management Agency. 2013. Pennsylvania 2013 Standard State All-Hazard Mitigation Plan.

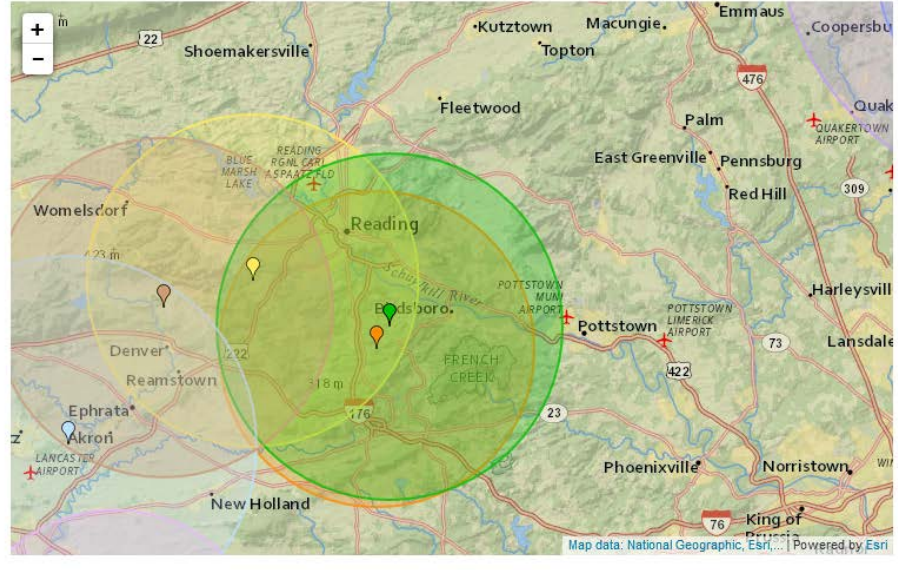
³ <https://earthquaketrack.com/>

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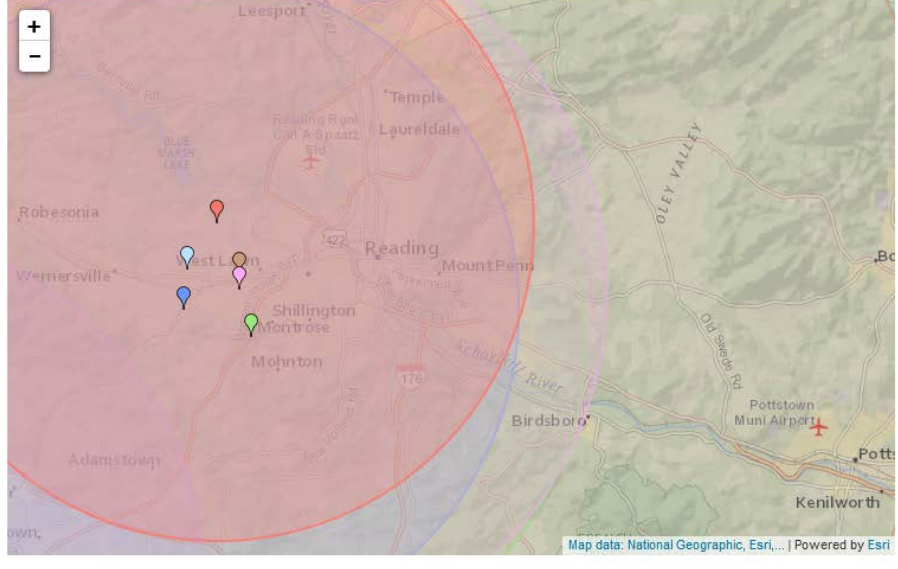
- **3 months ago** 2.3 magnitude, 5 km depth
Willow Street, Pennsylvania, United States
- **2 years ago** 1.5 magnitude, 1 km depth
Conestoga, Pennsylvania, United States
- **2 years ago** 2.7 magnitude, 2 km depth
Downingtown, Pennsylvania, United States
- **4 years ago** 1.8 magnitude, 5 km depth
Conestoga, Pennsylvania, United States
- **6 years ago** 5.8 magnitude, 6 km depth
Louisa, Virginia, United States
- **8 years ago** 2.3 magnitude, 3 km depth
Raubsville, Pennsylvania, United States
- **8 years ago** 2.8 magnitude, 5 km depth
Pennsville, New Jersey, United States
- **9 years ago** 3.4 magnitude, 4 km depth
Landisville, Pennsylvania, United States
- **9 years ago** 2.1 magnitude, 1 km depth
Milford, New Jersey, United States
- **10 years ago** 2.1 magnitude, 7 km depth
Sinking Spring, Pennsylvania, United States

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- **10 years ago** 2.1 magnitude, 7 km depth
Flying Hills, Pennsylvania, United States
- **11 years ago** 2.5 magnitude, 6 km depth
Sinking Spring, Pennsylvania, United States
- **13 years ago** 2.2 magnitude, 2 km depth
Barrington, New Jersey, United States
- **14 years ago** 2.7 magnitude, 1 km depth
Flying Hills, Pennsylvania, United States
- **14 years ago** 2.4 magnitude, 3 km depth
Milford, New Jersey, United States
- **14 years ago** 3.8 magnitude, 3 km depth
Milford, New Jersey, United States
- **17 years ago** 2.0 magnitude, 5 km depth
Strasburg, Pennsylvania, United States
- **20 years ago** 3.0 magnitude, 5 km depth
Rothsville, Pennsylvania, United States
- **21 years ago** 2.6 magnitude, 5 km depth
Reinholds, Pennsylvania, United States
- **21 years ago** 2.2 magnitude, 5 km depth
Rising Sun, Maryland, United States

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- **21 years ago** 2.2 magnitude, 5 km depth
Rising Sun, Maryland, United States
- **22 years ago** 2.7 magnitude, 5 km depth
Landisville, Pennsylvania, United States
- **23 years ago** 2.5 magnitude, 5 km depth
Mohnton, Pennsylvania, United States
- **23 years ago** 2.4 magnitude, 5 km depth
Strasburg, Pennsylvania, United States
- **23 years ago** 2.5 magnitude, 5 km depth
Sinking Spring, Pennsylvania, United States
- **24 years ago** 2.6 magnitude, 5 km depth
Clay, Pennsylvania, United States
- **24 years ago** 2.9 magnitude, 5 km depth
Sinking Spring, Pennsylvania, United States
- **24 years ago** 4.6 magnitude, 5 km depth
Sinking Spring, Pennsylvania, United States
- **24 years ago** 4.2 magnitude, 5 km depth
Sinking Spring, Pennsylvania, United States
- **24 years ago** 2.1 magnitude, 5 km depth
Whitfield, Pennsylvania, United States

PADEP trustee obligations under Article I Section 27

DRN believes that the impacts from the power plant, water line, natural gas pipeline, and transmission will be significant, negatively affecting communities and endangering environmental, scenic, aesthetic, recreational, historical, and agricultural resources. Articulated in Article I Section 27 of the Pennsylvania Constitution, the Environmental Rights Amendment, the people of Pennsylvania have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. PADEP has trustee obligations under Article I Section 27, now and for generations to come. These obligations demand that PADEP reject this application. Approval of this permit infringes on those rights. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come.

Since this power plant, water line, transmission line, and pipeline would operate for decades in the state and require continual company oversight for safety and health and the environment and wellbeing of Pennsylvania's waterways and wetlands, it's important that the PADEP consider the long term health of the operators of each and consider their long term viability as businesses.

PADEP should also consider the need for the power plant and these appurtenant structures. Pennsylvania is already the largest exporter of electricity in the nation, so the electricity to be generated in Birdsboro is not needed in Pennsylvania, yet Pennsylvanians and Pennsylvania's environment will bear the harm from these impacts. Moreover, given that the costs of shipping electricity make it impractical to move long distances, building the power plant and constructing these appurtenant structures in Berks County, where the electricity is not needed does not make sense.

Summary

The proposed power plant, water line, transmission line, and pipeline are not needed in Pennsylvania. Their construction will cause harm to communities and the environment. For these reasons and the outlined impacts, DRN objects to issuance of the requested encroachment permits for RAWA's water line. If denial is not granted, we urge PADEP to formally issue additional time for the public to contribute important and meaningful information on the impacts of the water line and the Birdsboro power plant and its appurtenant structures. DRN requests that a 90-day extension for further review is provided to the public at minimum.

We also ask that PADEP hold multiple public meetings on these cumulative impacts with at least one meeting each for the power plant, the transmission line, and the natural gas pipeline to allow those who will be impacted to have the opportunity to both comment and hear the concerns of the neighbors.

Thank you for your attention to these comments.

Respectfully submitted,



Maya K. van Rossum
the Delaware Riverkeeper