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## WREN December 2012 E-NEWS FEATURE

### Navigating Pipelines through Pennsylvania Waters

*By Roberta Winters, Issues and Action Vice President,  
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We don't often think about pipelines. They are out of sight and generally out of mind. However, with natural gas development in our Commonwealth come thousands of miles of new and expanded infrastructure. While pipelines are the safest means of transporting natural gas and hazardous liquids, special consideration must be given to the site-specific and cumulative impacts of pipelines on our water resources.

The [Pennsylvania Department of Environmental Protection](http://www.dep.state.pa.us), through the issuance of the National Pollutant Discharge Elimination System (NPDES) permit, is responsible for implementing provisions of the Clean Water Act for all pipelines. This includes small, low pressure, distribution lines less than one-inch across, to huge, high pressure, interstate transmission lines that can be forty-eight inches in diameter.



*Wellsboro August 2011*

The siting regulations, per se, are dependent on the somewhat "gray" classification of pipelines into four major categories. First, distribution lines are currently sited based on local ordinances and zoning.<sup>1</sup> Provisions of Act 13, currently being deliberated by the Pennsylvania Supreme Court, may result in the pre-emption of such regulations in natural gas operations. Intrastate transmission lines and gathering lines that run from well sites to transmission lines are also regulated through DEP permitting. However, interstate transmission lines are under the purview of the Federal Energy Regulatory Commission (FERC).

**Getting the Lay of the Land** – Regardless of the size or use of a given pipeline, good planning requires good data. As we look at our expanding pipeline infrastructure, it is interesting to note that Pennsylvania has 86,000 miles of tallied streams and rivers, 3956 lakes, ponds and reservoirs, 17 square miles of estuaries and bays, 403,924 acres of freshwater wetlands, and 512 acres of tidal wetlands. However, such numbers are guesses, at best, based on aerial maps of freshwater wetlands done by the National

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Wetlands Inventory. The actual extent of Pennsylvania wetlands is probably more than double.<sup>2</sup> Thus, it is imperative that all stakeholders know what regulated features exist as the first step in guiding pipeline routes and methods.

GPS data and aerial surveys done by project sponsors can fail to delineate accurately what is found on the ground. For example, in a recent environmental assessment regarding the proposed Brandywine Creek Replacement Project, the [U.S. Fish and Wildlife Service](#) noted that potential presence of bog turtle habitats. Such findings may designate this area as an “exceptional value” wetland. Such a label would also carry with it the classification “exceptional value” waters of the Commonwealth and Outstanding Natural Resource Waters according to the Clean Water Act. In the case of our water resources, labels make a difference when it comes to development.

How do we obtain an accurate delineation of waters and wetlands? Many believe that this is best accomplished by requiring all areas of disturbance to secure jurisdictional determinations from the [Army Corps of Engineers](#). County Conservation groups, who know the territory and have “boots on the ground,” are also critical in assessing the lay of the land. Citizens, of course, can play a significant role in providing input at hearings and through written comments to regulatory agencies. Many of our farmers, fisherman, hikers, and local residents are most familiar with such factors as seasonal variations and impacts of recent flood or drought conditions.



*Wellsboro August 2011. There is a frog in the pool!*

**Making a Good Choice** – The shortest distance between two points is a straight line. However, theory and reality often are in conflict when it comes to choosing the best route for a pipeline. One needs to consider not only natural features on the ground, but also a variety of other factors such as safety. How is this done?

To help make good choices, a Pipeline and Informed Planning Alliance (PIPA) was sponsored by the U.S. Department of Transportation, the Pipeline Hazardous Materials Safety Administration, Office of Pipeline Safety. The group was composed of over 130 participants representing a variety of viewpoints on pipeline and community planning. Their final report, *Partnering to Further Enhance Pipeline Safety in Communities Through Risk-Informed Land Use Planning*<sup>3</sup>, provides practical steps for implementing recommendations to help protect people, the environment, and the pipeline infrastructure. Specific best practices are included for reducing risks relative to above ground water management infrastructure and locating and designing water supply systems to prevent contamination and evacuation damage. While such guidance is valuable as a source of input in decision-making, it lacks necessary teeth for mandating implementation.

In sensitive areas such as the Delaware River Watershed, Aaron M. Lien and William J. Manner suggest that companies collate and simultaneously install their needed infrastructure. This helps to minimize degradation as water, gas, and communication lines can be put in at the same time in same right-of-

<sup>2</sup><http://www.pasda.psu.edu/uci/MetadataDisplay.aspx?entry=PASDA&file=panwipolygon.xml&dataset=106>

<sup>3</sup><http://primis.phmsa.dot.gov/comm/publications/pipa/PIPA-Report-Final-20101117.pdf>

way.<sup>4</sup>

Currently, an interstate pipeline company wishing to expand or construct a line sends plans to FERC. This Commission, in turn, has the power to issue a “certificate of necessity and convenience” for its construction and operation. As was mentioned previously, all pipelines fall under the environmental regulation of DEP. Obtaining an NPDES permit is the key for pipeline project sponsors to establish the route. Rights of ways are purchased or obtained through eminent domain from property owners. If you believe you will be impacted, *A Landowners Guide to Pipelines* is a useful resource.<sup>5</sup>

**Doing the Right Thing** – Most pipeline routes will go across streams, rivers, and wetlands. To do so requires pipes to go over, go under, or go through the water. Generally, methods include open cut (with either a wet or dry ditch), dam and pump around, or horizontal deep drill. The technique chosen must be based on a careful analysis of the pros and cons of each method and be site specific. To get a partial sense of what is involved, you may wish to review the proposed revision of Environmental Guidance



*Erosion and sediment control. Wellsboro August 2011.*

Documents Governing Interstate Natural Gas Lines for Upland Erosion Control, Revegetation, and Maintenance Plan as well as the Wetland and Waterbody Construction and Mitigation Procedures.<sup>6</sup>

The right of appeal is provided for stakeholders in two ways. A permit issued by the DEP can be appealed to the Pennsylvania Environmental Hearing Board. This quasi-judicial body within the DEP hears appeals of final actions of the Department, including challenges to permit decisions, DEP enforcement actions and new regulations.<sup>7</sup> Interveners can also challenge FERC rulings regarding pipelines and their routes. It is important to know and protect your rights when an interstate pipeline is proposed in your community. Carolyn Elefant has produced an excellent guide to assist the public.<sup>8</sup>

**Staying Vigilant** – Given the limited number of regulators and inspectors, the monitoring of pipeline construction and later mitigation is often left to local citizens and agencies. Local conservation districts can provide oversight and guidance regarding critical issues such as erosion and sedimentation controls. Digital pictures and videos are often useful in helping to document unanticipated consequences and events. If you have concerns, the DEP has a 24-hour, toll free Water Quality Hotline at 1-866-255-5158 and their spills and other emergency hotline can be reached by calling 484-250-5900.

<sup>4</sup> See *The Marcellus Shale: Resources for Stakeholders in the Upper Delaware Watershed Region* at [www.pinshot.org/gp/Marcellus](http://www.pinshot.org/gp/Marcellus)

<sup>5</sup> <http://www.pstrust.org/about-pipelines/LandownersGuidetoPipelines.htm>

<sup>6</sup> <http://www.gpo.gov/fdsys/pkg/FR-2012-08-07/html/2012-19279.htm>

<sup>7</sup> <http://www.foxrothschild.com/WorkArea/DownloadAsset.aspx?id=15032387959>

<sup>8</sup> <http://www.scribd.com/doc/33801163/Knowing-and-Protecting-Your-Rights-When-an-Interstate-Gas-Pipeline-Comes-to-Your-Community>

**Doing Your Homework** –To learn more about the basic operations of pipelines, their siting, safety, and regulations, go to the [League of Women Voters of Pennsylvania website](http://www.palwv.org).<sup>9</sup> You can link to their study guides and a position statement on pipelines<sup>9</sup> With the signing of the Gas and Liquids Pipeline Act of 2011, some of the noted regulations and oversight were changed. The best overall resources on pipelines, including a link to locate interstate lines in your area, can be found on the website of the Pipeline Safety Trust.<sup>10</sup>



*Wellsboro August 2011*

**Staying Current** – As a result of Act 13, a 20-page report on gathering lines was issued by Governor Corbett’s Energy Executive Patrick Henderson on December 11<sup>th</sup>. In addition to background information, the report includes siting considerations, the role of landowners, and recommendations to the legislature for strengthening regulations and related requirements.<sup>11</sup> For another perspective, Susan Phillips of *StateImpact*, published “A Pennsylvania Pipeline Primer: Who, What, Where and What the Heck?” just two days later!<sup>12</sup>



*Since retiring from teaching elementary school, Roberta has worked to help educate the citizens of Pennsylvania and LWV members in neighboring states regarding the evolving opportunities and challenges of natural gas extraction, production, and transmission. She is the 2012 recipient of the Florence Nelson Environmental Leadership Award of Clean Water Action. Roberta holds a B.S. in Biology, Bucknell University; an M.A. in Teaching, Science Education, Harvard University; and a Doctorate in Education from the University of Pennsylvania. She has been instrumental in launching the League's involvement in pipeline safety.*

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<sup>9</sup> <http://www.palwv.org>

<sup>10</sup> <http://www.pstrust.org/>

<sup>11</sup> <http://paenvironmentdaily.blogspot.com/2012/12/energy-executive-issues-report-on.html>

<sup>12</sup> <http://stateimpact.npr.org/pennsylvania/2012/12/13/a-pipeline-primer-who-how-where-and-what-the-heck/#more-1212>