



the source

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regulatory and legislative updates | best practices | new technologies



Perkiomen Creek Watershed Stream Restoration

Submitted by Laura Hopek, Watershed Specialist,
Lehigh County Conservation District



before | after



The Lehigh County Conservation District, in partnership with the PA Fish & Boat Commission, Perkiomen Valley Trout Unlimited, and the Perkiomen Watershed Conservancy received Growing Greener Grant funds to restore 415' of an un-named tributary to the Hosensack Creek and 0.50 acres of adjoining land in the Perkiomen Creek watershed, Lehigh County.

The land is owned by the Pennsylvania Power and Light Company (PPL), and sits directly under high tension power lines and adjacent to an existing gravel parking lot. Past management included aggressive vegetation removal that led to increased erosion to stream banks in this immediate area. Erosion was causing sedimentation of the creek bed, which inhibits the natural feeding and breeding cycles for aquatic organisms, and the scarcity of a deep-rooted riparian buffer has encouraged vertical stream banks, which is evident in the *before* photograph. In July, project partners and volunteers conducted in-stream work and streambank stabilization, which included the installation of fish-habitat structures and re-grading of slopes, and in September they planted over 150 native shrubs, grasses, and perennials along the stream to create a riparian buffer. The riparian buffer will keep stream temperatures cooler for trout, and will attract native wildlife, while providing an aesthetic benefit to the project site.

Funding from this grant allowed project partners to improve water quality by reducing the amount of sediment from eroded stream banks and minimizing non-point source pollution that ultimately enters the Delaware River. Working together on manageable sections such as this project site will create a cumulative impact on the quality of this watershed and the community.

Support for this project is provided by PPL (landowner), Aqua Pennsylvania, Inc. (water supply system serving local residents in the Perkiomen Creek watershed), the Berks County Conservation District, and the Montgomery County Conservation District.

Safe Drinking Water Begins at the Source

Source Water Protection has been a growing concern for many municipalities and community water systems. To help protect Pennsylvania's drinking water, the Department of Environmental Protection created the **Source Water Protection Technical Assistance Program (SWPTAP)**.

What is SWPTAP? This program provides funding and expertise to develop a Source Water Protection Plan. Community water systems that participate receive free assistance in delineating protection zones, developing strategies for managing the protection areas, and planning for the future.

Contact your Regional DEP office to find out more about SWPTAP, or visit the DEP website.

<http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm>

Quick Reference Guide

Questions? Contact your regional DEP office for guidance:

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Safe Drinking Water Starts at the Source!

Convene . . . Think . . . Act

This catchphrase was one of the themes of the recent *America's Watershed Initiative (AWI)* summit, held in October in Louisville, Kentucky.

AWI is a collaboration of non-profits, government agencies, academia, businesses, and other organizations that has a basin-wide perspective on the Mississippi River watershed, which contains portions of 31 states in the country's midsection.

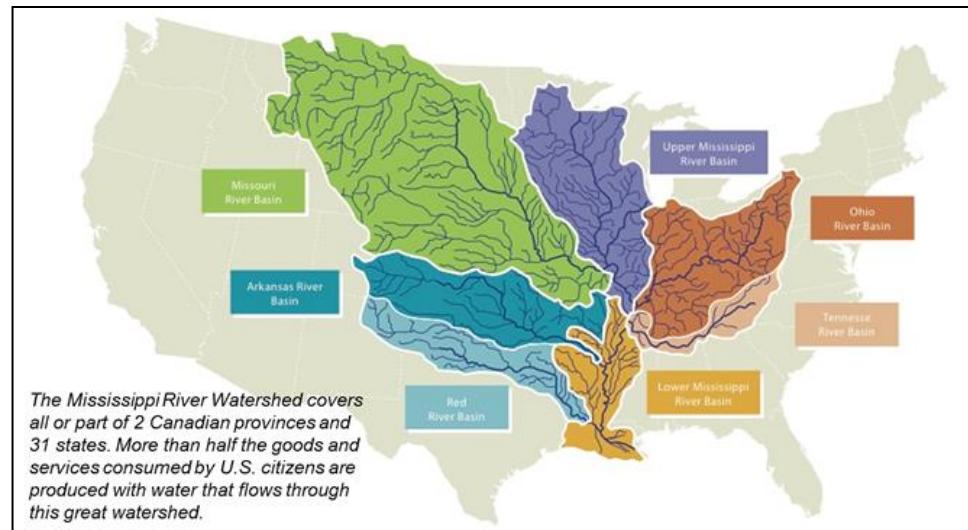
Why should Pennsylvanians be concerned with the Mississippi River? This river and all its subbasins produce more than half of all the goods and services consumed by US citizens across the nation. The Allegheny and the Monongahela Rivers in western PA form the Ohio River at their confluence in Pittsburgh, crosses several states, and eventually discharges into the Mississippi River in southern Illinois. The Allegheny and Mon watersheds encompass the entire western third of Pennsylvania, and extend up into New York State.

AWI started its mission in 2010 with a vision of implementing solutions to problems experienced in every watershed: water quality, flood control, energy, and transportation issues.

By 2012, around 175 participants held a second summit to discuss a sustainable approach that would support improvements across all the basins contributing to the Mississippi River. These discussions led into workshops held in each of the five major subbasins the following year, which developed a series of potential indicators on overall watershed health. These indicators were grouped into six broad goals: Water Supply, Flood Control, Economy, Ecosystems, Recreation, and Transportation.

Participants of the workshops prepared a draft "report card" of these indicators, providing a status-check on specific problems encountered in each tributary area. Each category then used available data on these topics to develop a preliminary grade or score for the individual basins. The 2014 summit offered breakout groups for the attendees to review and provide feedback on the indicators and the data used in the scoring process; in our region, the Ohio River and Tennessee River basins were combined for this report. Water supplier violations, employment, and people at risk for floods were all scored A or B for these two watersheds; very low grades were

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Visit the America's Watershed Initiative website at <http://americaswatershed.org>

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A Regional Approach to Source Water Protection

Partnerships among water suppliers are the newest trend in the *Source Water Protection Technical Assistance Program* – where a group of water systems in the same area join together to develop a single SWP Plan that covers multiple protection zones and shares management strategies. Currently, three groups of systems are in the process of either developing or finalizing a combined plan:

The **Lower Allegheny Regional Partnership** is a collection of five systems with intakes in the Allegheny River in the Southwest Region. These systems are being assisted by the **River Alert Information Network** (RAIN) in prioritizing their potential sources of contamination, and selecting group strategies that help with providing public education, manage stormwater issues, and work with emergency responders to reduce pollution events in the river. Instead of specific time-of-travel zones, their protection areas are strips of land along the river called Watershed Management Areas.

An additional five systems on the **Monongahela River** in Fayette and Washington counties are also working with RAIN to develop a collaborative plan. Like the Allegheny group, their protection zones are based on Watershed Management Areas along the river, and these systems are in the process of reviewing and correcting their potential sources of contamination (PSOC).

Potter Township in Centre County, Northcentral Region, has four groundwater systems working together. The Potter Township Planning Commission has been instrumental in encouraging a regional plan, since three of the systems are very small, serving populations of <125 customers. Separate delineations were completed for each system, but the group shares a PSOC inventory, and will consider management strategies that can be implemented by all.

Interested in participating in a regional plan? Contact your DEP Region representative for more information.

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assigned to transportation tonnage affecting the water quality, and number of recreational licenses purchased. The overall preliminary grade for the Ohio/Tennessee “report card” was C, the same evaluation received by the other four basins. Leaders of the summit emphasized that this draft version would be re-examined after suggestions and feedback from the attendees was incorporated. The final “report card” is expected to be issued in Spring 2015.

What's next for AWI? After the final reports on the “state of the watershed” are released next year, the real work begins. Individuals and organizations within each basin must decide on priorities, difficult when funding and staff resources are needed on a broad range of issues. AWI leaders support watershed-wide solutions and perspectives, and will be depending on trailblazers in the subbasins to implement the changes and projects needed to improve the water quality and quantity struggles experienced in every one of these 31 states.



Protecting Our Water Resources.

Before you can protect drinking water, you need to know where it comes from.

The first step in developing a source water protection plan is identifying the source for the water supply. Once identified, we work closely with the water supplier and community representatives to identify ways of protecting these areas. We identify potential sources of contamination, develop protective management strategies, plan for emergencies, and identify new water supply options. Our professionals delineate protective zones around each well or surface water intake to show the areas that contribute to the drinking water supply.

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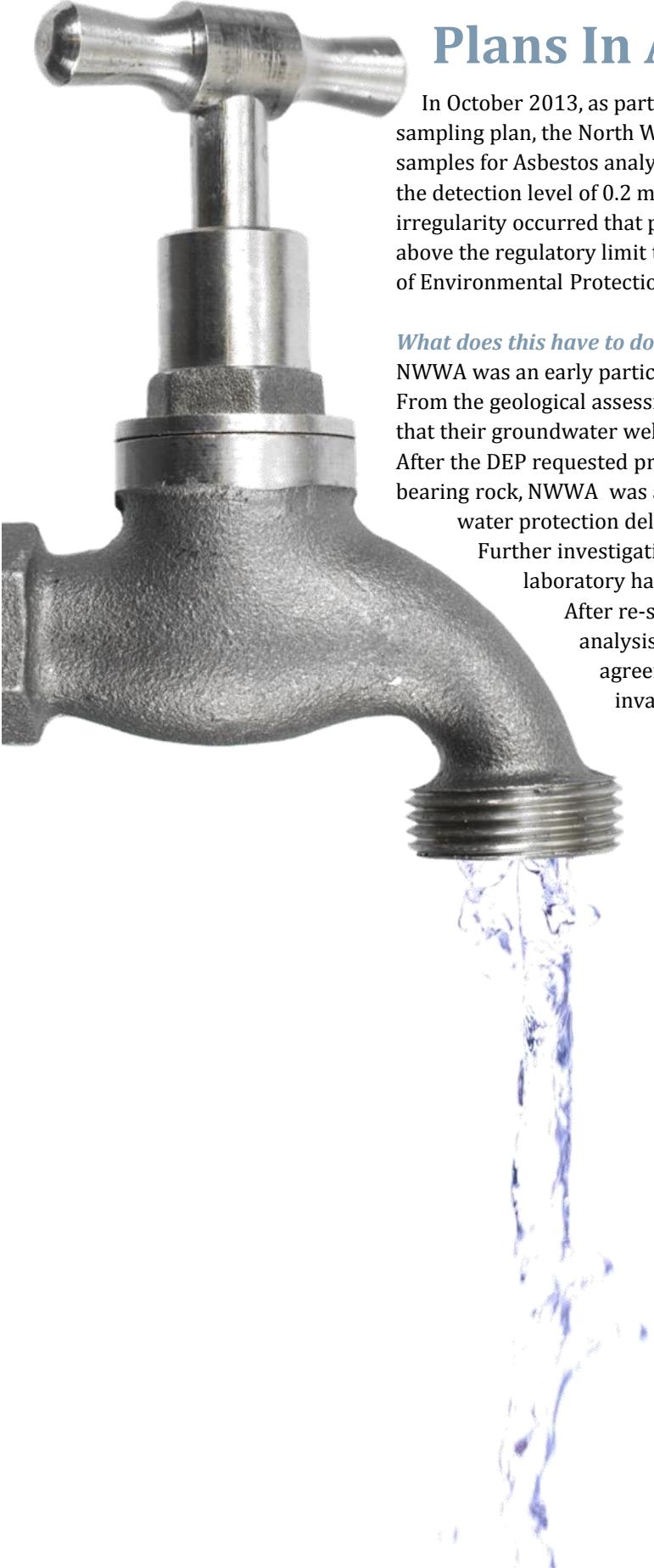
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Plans In Action



In October 2013, as part of their required Safe Drinking Water Act (SDWA) sampling plan, the North Wales Water Authority (NWWA) provided raw water samples for Asbestos analysis. Typically, the results would all be returned under the detection level of 0.2 million fibers per liter. However in one sample, an irregularity occurred that put the water system in a quandary: an Asbestos hit above the regulatory limit that was subsequently reported to the PA Department of Environmental Protection by the testing laboratory.

What does this have to do with Source Water Protection?

NWWA was an early participant in SWPTAP, and completed their plan in 2011. From the geological assessment in their Source Water Protection Plan, they knew that their groundwater wells did not lie in an asbestos-containing formation. After the DEP requested proof that the wells were not located within asbestos-bearing rock, NWWA was able to provide the Geology Map from their source water protection delineation report as verification of their claim.

Further investigation determined that internal errors at the testing laboratory had resulted in the incorrect report received by the DEP.

After re-sampling the water and providing background air analysis to the DEP, NWWA received a letter from the agency agreeing that there was an obvious sampling error, and invalidated the erroneous report.

SWPTAP PROGRAM NEWS

Recently Approved Systems

- Municipal Authority of Harmar Township, Allegheny County
- Indian Lake Borough Waterworks, Somerset County
- Pennsylvania American Water Company – Boggs Township, Centre County
- Unionville Municipal Waterworks, Centre County
- Ephrata Area Joint Authority, Lancaster County
- City of DuBois, Clearfield County
- Warriors Mark General Authority, Huntingdon County
- Manor Township Joint Municipal Authority, Armstrong County