

SEPTEMBER 2014 WATER POLICY NEWS GUEST FEATURE

Regional Partnership Continues to Explore Collaborations

In Water Supply Protection

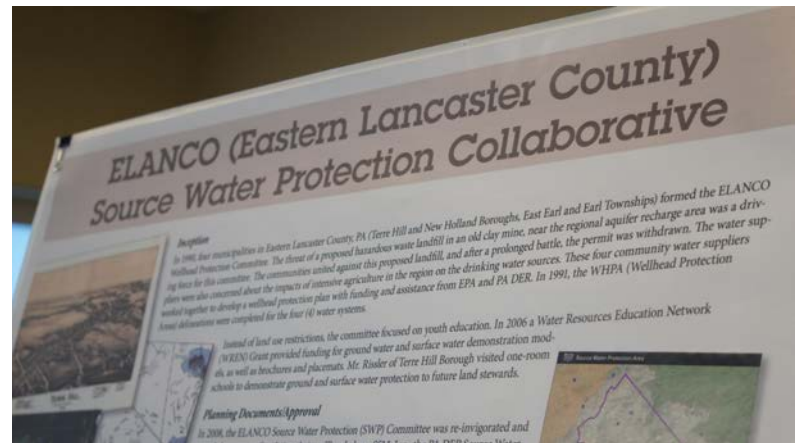
By Pat Devlin

Environmental Writer

All community water systems are required to test and treat drinking water to meet federal and state drinking water standards. As a water customer, you may have seen these results in your water company's annual Water Quality Report.

But fewer than 20 percent of the 350 community water systems in the lower Susquehanna River region have assessed existing threats to water supplies and even fewer (about six percent) have developed Source Water Protection (SWP) plans -- plans that delineate recharge areas, inventory potential sources of contamination, and involve community stakeholders in developing strategies for reducing the likelihood of water contamination.

Is that a big deal? After all, every water system must have a plan to deal with emergency situations, such as a water main break or roadside tanker spill. The problem is not all threats to a water supply are isolated incidents that can be dealt with immediately. Some are complicated, requiring long-term strategies that chip away at inherited threats from the past (think abandoned storage tanks) or challenge traditional land use practices and policies. Polluted runoff from farm and urban lands, loss of water-cleansing forest lands, and leaking pipelines are just a few of the looming dangers to a safe and dependable water supply.



A poster outlining the history of the Eastern Lancaster County Source Water Protection Collaborative (ELANCO) is displayed at the meeting of the Lower Susquehanna River Source Water Protection Partnership meeting in July.

For the past two years, the Susquehanna River Basin Commission (SRBC) has been working with representatives from the lower Susquehanna region's water systems, municipalities, consulting firms, governmental agencies and regional organizations to accelerate actions to safeguard future water supplies.

Fifty representatives from Pennsylvania and Maryland recently attended the third Lower Susquehanna Source Water Protection Partnership meeting to share success stories and identify ways to take a regional or cooperative approach to issues that many water suppliers face alone.

Collaboration and Integration are Key

Berks County has seen a lot of changes over the last four years in source water protection. Shannon Rossman, Berks County Planning Commission, points to a few key factors that have made a difference.

"The only way you can move forward is to have involvement, cooperation and participation," asserts Rossman. Her department spends a lot of time emphasizing source water protection at the municipal level and the importance of clean water for economic and recreational activities in the county. When developing source water protection plans, everybody needs to get involved, stressed Rossman. "You need to know where things are (e.g., sewer pipes, old tanks) and who's doing what."

"Since most water suppliers don't own or control their watersheds, it's critical to know land uses, especially in Zones 1 and 2 (water recharge areas) immediately surrounding public wells," says Rossman. "Collaboration is key. Identify your partners - conservation districts, watershed groups, school districts, farmers, local officials, etc."

In Lancaster County, the Lancaster County Planning Commission is leading a pilot program under the Source Water Collaborative, an effort of twenty-five national organizations united to promote implementation of source water protection plans, especially with hard-to-reach target audiences. Focused on eastern Lancaster County, this pilot program successfully cultivated a relationship with Mennonite leaders and attracted hundreds of plain sect farmers to a workshop on agricultural best management practices. Project planners hope to continue the momentum by planning future outreach events that will continue the messages that resonate with the region's farmers economically.



Pennsylvania American Water-Mechanicsburg and Pennsylvania American Water-Hershey received certificates of approval for their Source Water Protection Plans from PA DEP's Cathy Port, second from the right, at the meeting of the Lower Susquehanna River Source Water Protection Partnership in July. Pictured from left are: Tyler Shenk, SRBC; Kim Dagen, SRBC; Jon Prawdzik, Pennsylvania American Water; Cathy Port, geologic specialist with the PA DEP's southcentral region; and Andrew Gavin, SRBC. Prawdzik accepted the certificates on behalf of both Pennsylvania American Water facilities.

"It takes time to build relationships and trust," says Randy Heilman from the Lancaster County Planning Commission. "You have to repeat yourself. Continue to take the message out. Farmers want to stay there too. These message make sense to them economically."

Repetition and education are worth the effort, echoed Rossman. Because elected officials are constantly changing, you have to reiterate the source water protection goals as new people come on board at the municipal level.

And use the data that is out there, urged Rossman. Even the smallest water suppliers and municipalities can take advantage of the land use data collected by the planning commission and state agencies. Check databases, such as DEP's eNOTICE and eFACTS, for potential contaminant sources.

Rossman admits that change comes slowly in Berks County. But she's found that if you take small steps and build partnerships, change will happen. She points to the fact that the joint planning done years ago in Berks County laid the groundwork for a county MS4 cooperative program that is now helping 34 municipalities meet new stormwater management requirements imposed by the federal Clean Water Act. (MS4 stands for Municipal Separate Storm Sewer System -- a community's storm drainage system.)

"If we hadn't done joint planning years ago, we never would have been able to do the cooperative MS4 program," says Rossman. "People are talking to each other now. It's much easier to ask for help if you know the person."

"Consistency is also a big thing," stressed Rossman, noting the Memorandums of Understanding now in place between the Berks County Conservation District and municipalities ensure continuity throughout the county when issuing stormwater permits.

Dealing with new stormwater management mandates under the federal MS4 program may seem to draw attention away from source water protection planning, but these two water resource issues really go hand-in-hand. Stormwater drains and outfalls can be direct conduits to surface waters tapped for drinking water. If there is a contamination incident, it is important to know which stormwater drains to block so as not to contaminate a known drinking water source. Mapping stormwater infrastructure is the first step.

"Before you retire, get your inlets and outfalls mapped," urged Nate Merkel of the Pennsylvania Rural Water Association. With today's hand-held GPS devices and Google Earth technology, it is a realistic goal to map stormwater structures and store all types of information related to specific stormwater structures -- e.g., routine cleaning and inspection histories, surrounding land use activities, and geographic coordinates to help locate a structure even beneath two feet of snow.

Merkel encourages communities to use county planning agencies, technical assistance providers, or consultants to map stormwater systems using Geographic Information Systems (GIS). The maps can be used by municipalities for something as simple as keeping storm drains located in Zones 1 & 2 clean and free of contaminants. And share this data with other agencies, says Merkel. Other agencies can use this GIS information to better manage emergency responses and improve their overall land management strategies.

Partners Recognize Gaps in Emergency Response Preparedness

Tanker truck accidents are not uncommon in the lower Susquehanna River region, home to Interstate Routes 81, 83, 15 and the Pennsylvania Turnpike. When spills involve hazardous materials, a chain of notifications ensue -- who is contacted depends on the municipal or county emergency services protocol. Water suppliers may or may not receive a call alerting them to shut down water intakes to protect water supplies. (Tioga County is the first region in Pennsylvania to develop a GIS-based system with automatic notification to water suppliers in the event of roadway accidents involving hazardous substances.)

Lower Susquehanna River SWP partners believe there's a strong need to educate emergency service responders (911 call centers and first responders) about source water protection and watershed science. For instance, it's important to share information with emergency responders about which storm drains may impact water sources and how long a spill will take to reach a water intake.

There is a ripple effect from such roadway accidents, noted Lyn O'Hare with Spotts, Stevens and McCoy, a consulting firm working on source water protection plans across Pennsylvania. "Emergency responders don't always understand how their actions impact water sources. There are residual issues. For example, what happens to wash water after a spill site is cleaned? The wash water often ends up in the nearest creek."



Andrew Gavin, deputy executive director for the Susquehanna River Basin Commission, addresses the group at the Lower Susquehanna River Source Water Protection Partnership meeting in July.

SSM is working with the Reading Water Authority to provide Emergency Management Coordinator Awareness Training. They met with emergency services and provided them GIS data layers to show them source water protection zones that need to be protected in the event of accidental spills. Part of this ongoing training will be to educate 911 call center officials about what they can do to handle emergency calls for incidents that may impact local water sources.

Tabletop emergency response exercises are another outreach tool designed to prepare emergency responders for water-related emergencies. Jon Prawdzik from Pennsylvania American Water explains that these all-day events are open to a wide variety of agencies. Participants are given scenarios with which to

coordinate responses, such as intentional contamination, security breaches, physical plant attacks, natural disasters, and cyber attacks.

Peer-to-Peer Aid Grows in Pennsylvania

It is a familiar practice for electric companies to travel long distances to help communities hit by disastrous storms that disrupt electrical service. That same premise is now at work with water and wastewater systems through PaWARN, a statewide network of utilities that help each other out when water and wastewater services are interrupted for extended periods of time.

Born out of Hurricane Katrina, the WARN (Water/Wastewater Response Network) concept has grown nationwide since 2006. According to Mike Snyder, PaWARN Coordinator, half the population in Pennsylvania is now served by PaWARN members. In south central Pennsylvania, 34 water and wastewater utilities have joined the network.

The concept is simple. Utilities need only sign a Mutual Assistance Agreement, which facilitates the sharing of emergency resources.

"It's not a big commitment," explains Snyder. "A member just agrees to help another utility only if it can." During Hurricane Sandy, for instance, the Lehigh County Authority needed a generator for power. Erie Water Works promptly responded with a generator. In 2013, the City of Harrisburg experienced a sinkhole that resulted in the loss of potable water. After a few phone calls, two water buffalos were trucked to the site on a Saturday afternoon.

"We come into play when there is an industry-specific need for water or wastewater equipment. We are not there to duplicate any existing emergency response service," stressed Snyder. Only another water company can quickly provide an odd-sized clamp for a water main break. Providing interconnects, generators, pumps, and bulk water are common resources provided to get systems back on line in a hurry.

Partnership Plans

Interest remains high among regional stakeholders to continue the efforts of the Lower Susquehanna Source Water Protection Partnership. According to SRBC's Andrew Gavin, the group still needs to decide what type of organizational goals make sense for the regional partnership.

"We do not want to re-invent the wheel," says Gavin. "We do want to share tools with proven track records and collaborate on solutions to problems commonly faced by water suppliers."

If interested in participating or learning about past Partnership meetings, email srbc@srbc.net or go to <http://www.srbc.net/programs/partnership.htm>.

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