

Susquehanna River Basin Commission *Information Sheet*

Susquehanna River Basin Early Warning System



Project Background – The federal government places a high priority on the protection of our nation’s drinking water supply, with the Safe Drinking Water Act among its primary vehicles. From 2000 to 2003, the Susquehanna River Basin Commission (SRBC) collected information and data on contaminant threats and determined the susceptibility of public water suppliers to those threats in the Pennsylvania and Maryland portions of the Susquehanna River Basin. Then in 2003, SRBC established the Early Warning System (EWS) program for public water suppliers in Pennsylvania with intakes in the Susquehanna River, and expanded the system into the New York portion of the basin in 2006.



Project Overview – The EWS provides a framework for innovative partnerships and protocols for fostering communication and data sharing among water suppliers, state/local agency personnel, and the emergency response community for the purpose of enhancing drinking water protection efforts.

The current EWS enhances protections for public drinking water supplies serving about 850,000 people, provides a monitoring network that helps minimize the impact from contaminant spills, and provides data for improving day-to-day treatment operations, further ensuring a continuous and safe supply of drinking water. Furthermore, with heightened national security concerns, SRBC’s EWS has become an important tool for participating water suppliers and emergency management officials.

Project Guidance – SRBC is responsible for the overall system function and implementing stakeholder recommendations. The stakeholder group, which guides the EWS, is a mix of participating public water suppliers and representatives from environmental protection and emergency response agencies.



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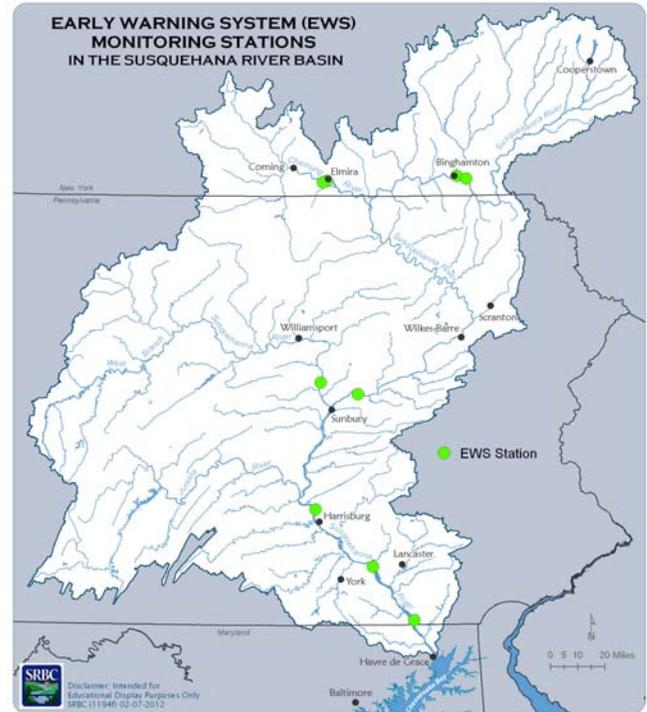
Monitoring Network

Threats and challenges to treatment plants include:

- Harmful substances from fuel spills and other toxic releases entering the treatment plant—these incidents have the potential for shutting down water treatment operations for extended periods of time.
- Daily fluctuations in river water chemistry, not related to spills, can pose challenges to treating source water.

Current EWS monitoring capabilities include:

- Nine stations monitoring a minimum of pH, temperature, and turbidity at critical locations along the major rivers of the Susquehanna Basin using online analyzers, and transmitting the data in real-time to water treatment plants and SRBC.
- Four of the nine stations provide enhanced monitoring for organic contaminant detection.
- Several stations also monitoring for conductance and/or dissolved oxygen.



Map of EWS Stations

SRBC Early Warning System - Real-Time Data and Maps

Graphs Raw Data Statistics Time of Travel Map

How to Estimate the Time of Travel:

1. Select a location (Drainage Area). The corresponding USGS Gage station will be selected automatically and the current flow value filled-in
2. Enter the spill location (Dist. from Intake) in miles as distance from your intake
3. Click Calculate Velocity and Time of Travel Estimate in hours will be filled-in

Location (Drainage Area): Harrisburg

USGS Gage Station: Harrisburg

Current Flow Rate: 43700 ft³/sec

Velocity: 3.329 ft/sec

Spill Location (distance from intake): 20 miles

Time of Travel Estimate: 4.1 hours

calculate

EWS Web Site- Time-of-Travel Tool

Database and Web Site Interface – A secure EWS database and web site interface contain information associated with the project, as well as provide tools for evaluating, or responding to, contamination events. The web site interface provides user-friendly access to the information and tools enabling downstream users to respond to adverse changes in water quality, including a time-of-travel tool to help estimate contaminant dispersal times.

Monitoring Programs – Assisting Water Suppliers and Local Interest to Set Up New Programs

– SRBC assists water suppliers to form partnerships with other agencies and citizen groups active in areas critical to their water supply in order to enhance and sustain monitoring and protection activities.

Susquehanna River Basin Commission Background – SRBC (www.srbc.net) is the governing agency established under a 100-year compact signed on December 24, 1970 by the federal government and the states of New York, Pennsylvania, and Maryland to protect and wisely manage the water resources of the Susquehanna River Basin. The Susquehanna River starts in Cooperstown, New York, and flows 444 miles to Havre de Grace, Maryland, where the river meets the Chesapeake Bay.

Contact – For more information on the network, please contact the Susquehanna River Basin Commission at (717) 238-0426 or srbc@srbc.net.