

# SRBC Source Water Protection Activities in the Susquehanna Basin



*Summary for 2009-2011*

# Scope of Work

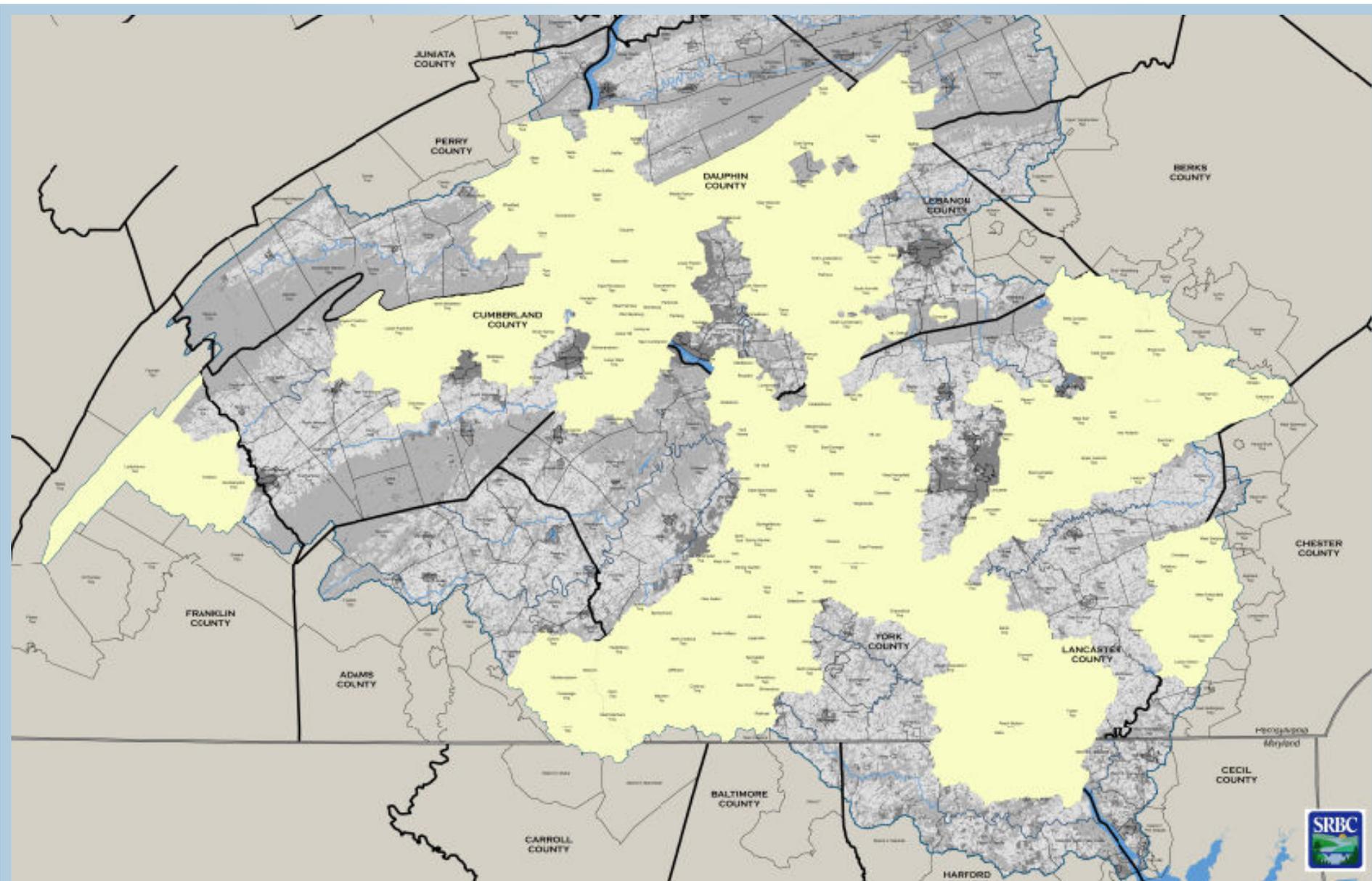
- Development of individual source water protection plans for over 20 systems (>40 sources) in the Lower Subbasin
- Development of a Lower Susquehanna Subbasin Source Water Protection Strategy
- Enhancement/expansion to the PA portion of the EWS

# USEPA/PADEP Minimum Elements for Source Water Protection

- Steering Committee and Public Participation
- SWP Area Delineation
- Contaminant Source Inventory
- SWP Area Management and Commitment
- Contingency Planning
- New Sources

# Examples of Output

- SWP Plan Development
  - Source delineation and contaminant inventory refinements
  - Management/Implementation plan
- Strategy Development
  - Regional partnership framework → Lower Subbasin pilot
  - Identification/Prioritization of regional issues (pollutants, critical conditions, etc.)
  - Regional implementation plan
- EWS
  - Additional stations/parameters
  - Analytical tool enhancement/development (time-of-travel/contaminant tracking)
  - Strategy development



Susquehanna River Basin Commission

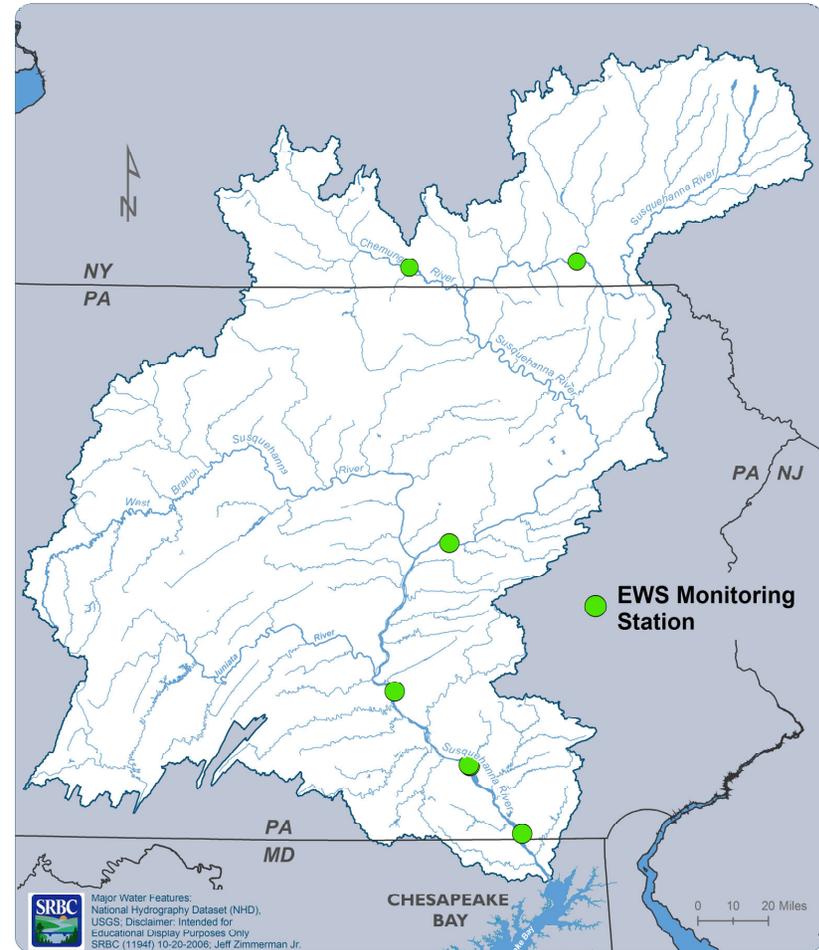
[www.srbc.net](http://www.srbc.net)

# Possible Strategy Partnerships

- Water suppliers
- Federal/state agencies
- County/municipal planning
- Watershed/citizen organizations
- Regional organizations
  - PA Rural Water
  - Lower Susq Center for Land and Water

# Early Warning System (EWS)

- PA EWS program - 2003
- New York - 2006
- Enhancing drinking water protection efforts
- pH, temperature, and turbidity @ intake locations with real-time data transmission
- Four stations with organic contaminant detection capabilities
- Stations established upstream of intakes

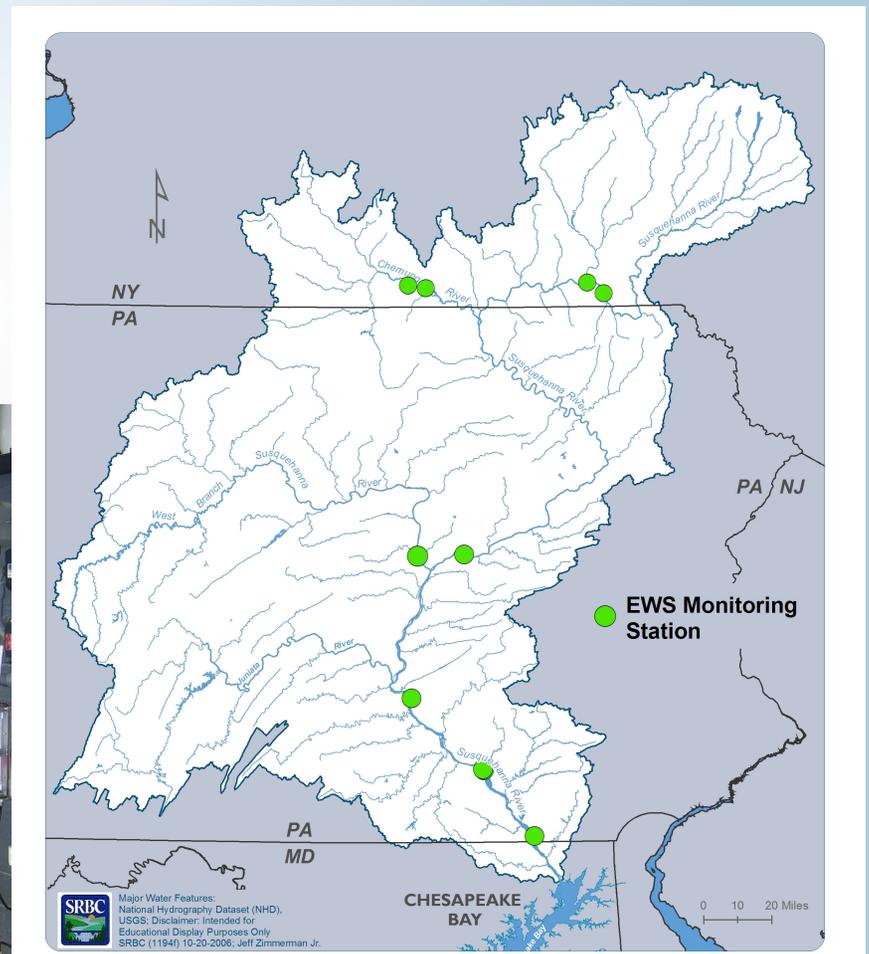
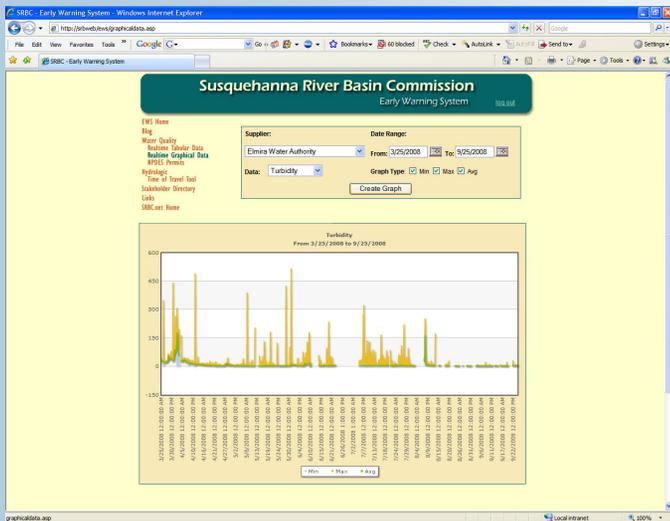


# Recent EWS Activities

- Completed NY expansion for the Elmira/Binghamton intakes
  - *Turbidity, pH, and temperature (standard system parameters)*
  - *Dissolved oxygen, conductance*
  - *Organics detection (TOC and UVAS monitors)*
- Installed “stand-alone” remote monitoring stations upstream of the NY intakes
  - *Turbidity, pH, temperature, dissolved oxygen, conductance, depth*
- Upgraded equipment/parameters at several existing stations – some in partnership with the Susquehanna Heartland Coalition
- Standardizing data transmission/management modules for ease of implementation at new stations

# Susquehanna Basin EWS

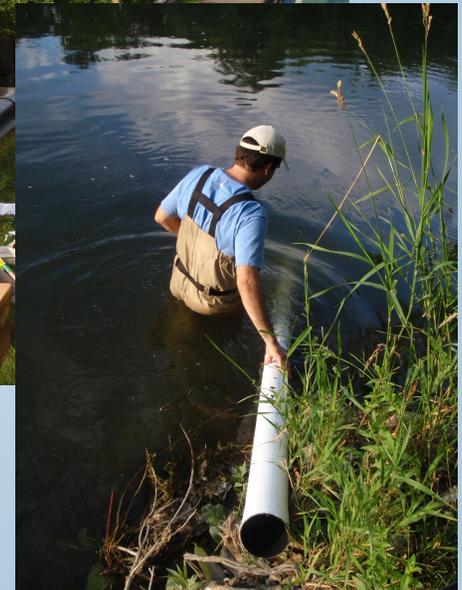
- Enhancing drinking water protection efforts





# New System Upgrades

- Four new stations
- Parameters:
  - *temperature, conductance, pH, dissolved oxygen, turbidity, and water depth*
- Cell modem data transmission
- One station powered by solar panel



# New System Upgrades

**Early Warning System**  
Susquehanna River Basin Commission

OVERVIEW MAP DATA GRAPH STATS PANEL GO LIVE FORUM

Kirkwood, NY

- Temp
- Sp Cond
- Depth
- pH
- Turb+
- ODOsat
- ODO
- Bat

Elmira, NY

- Temp
- Sp Cond
- Depth
- pH
- Turb+

SELECT ALL GO

DAY WEEK MONTH YEAR

08/05/2009 09/04/2009

Elmira, NY - Depth (ft)

Min Y Value 0.000

**Early Warning System**  
Susquehanna River Basin Commission

OVERVIEW MAP DATA GRAPH STATS PANEL GO LIVE FORUM

Project Description

**Early Warning System**

Kirkwood, NY  
at 09/04/09 1:30PM

Temp	21.25 C
Sp Cond	0.175 mS/cm
Depth	2.519 ft
pH	8.50
Turb+	3.80 NTU+
ODOSat	121.3 %
ODO	10.76 mg/L
Bat	13.5 V

ALL DATA Powered by NexSens Technology

**Limitation & Data Disclaimer**  
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**Early Warning System**  
Susquehanna River Basin Commission

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