

Upstream Partners



June 3, 2003

Chris Crockett, P.E.

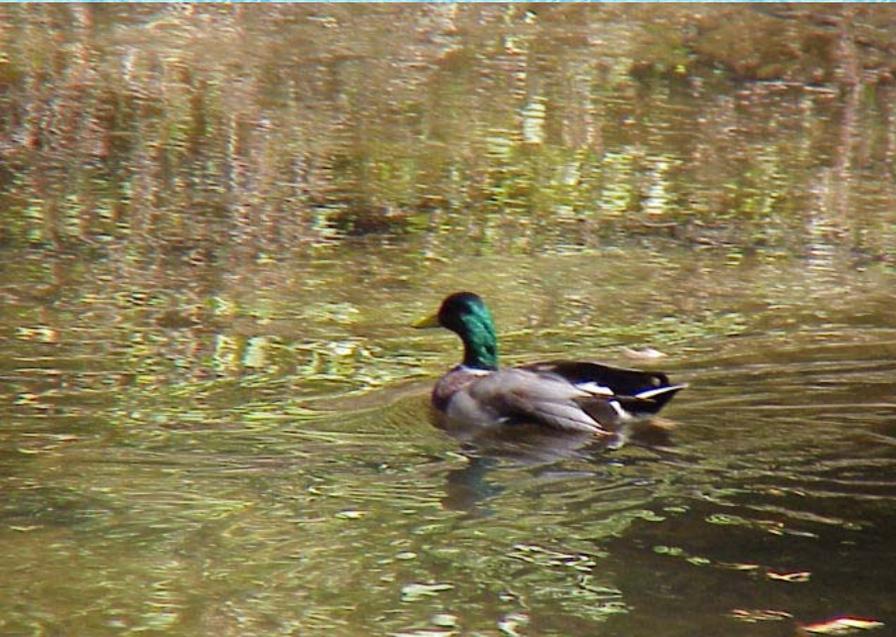


Source Water's Inherent Connectivity





To The Many Aspects Of Life





And Living



Schuylkill & Delaware Rivers

Schuylkill River

- 130 miles long
- 2,000 square miles
- 2,522 miles of streams
- 11 counties, 3 DEP regions
- 1.5 million people
- >3,300 point sources
- 48% Forested, 36%
Agricultural, 14%
Developed

Delaware River

- 330 miles long
- 13,359 square miles
- 14,299 miles of streams
- 30 counties, 3 states (1/2 PA)
- 10% U.S. Population
- > 5,700 point sources
- 70% Forested, 17%
Agricultural, 10%
Developed

Allentown

Reading

Norristown

Scranton

New York City

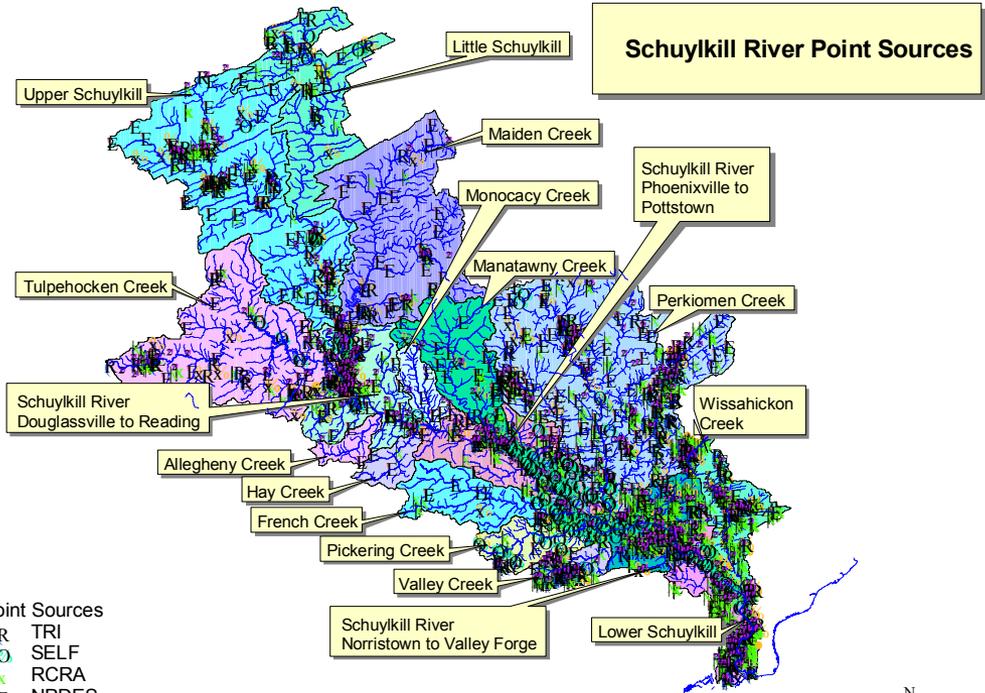
Trenton

Philadelphia

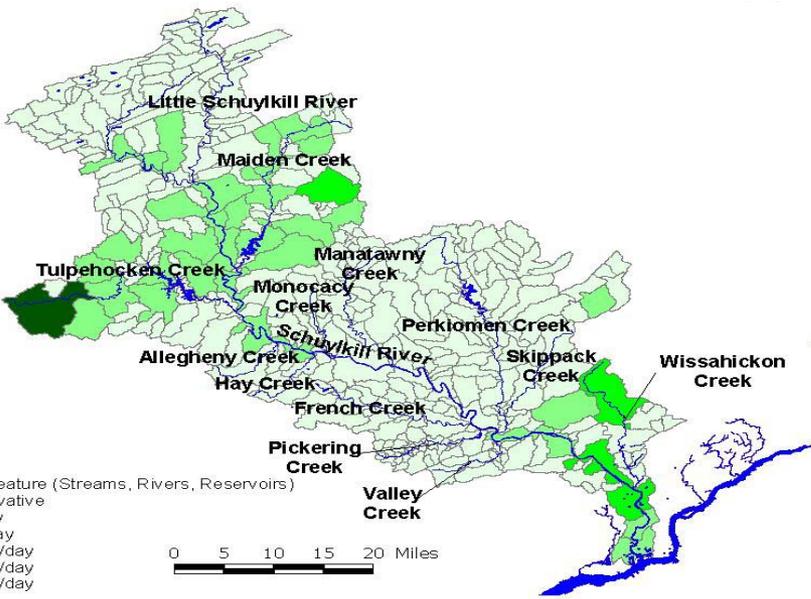
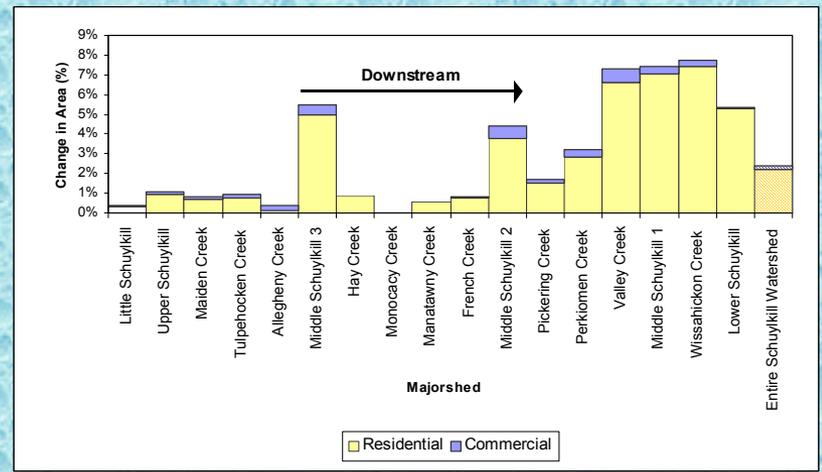
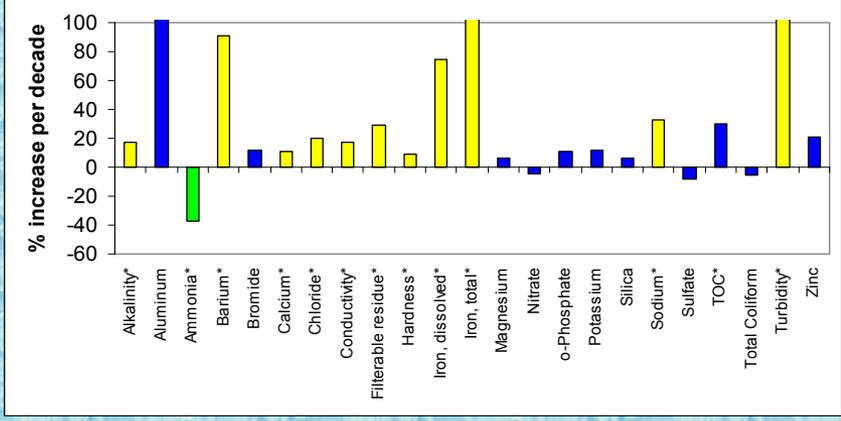


10 0 10 20 30 40 50 60 70 80 90 100 Miles

Delaware River Watershed



- Point Sources
- R TRI
 - SELF
 - ⊥ RCRA
 - E NPDES
 - ⊗ CERCLA
 - ⬠ AST



Assessing The Watershed To Provide Technical Facts And Need To Act !

A guide to environmental stewardship on the golf course



second edition

Protect Your River & Drinking Water

Please Do Not Feed the geese



Geese flock where people feed them. The grazing and droppings from unnaturally large goose populations damage the land and water, which in turn can degrade the Schuylkill River, one source of Philadelphia's drinking water.

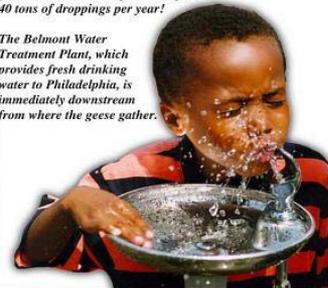
 The intake for the Belmont Water Treatment Plant is immediately downstream of this site. The degradation of the river increases the treatment effort required to make your drinking water safe.

 This sign is part of the Belmont Water Intake Protection Project. This project, a precautionary effort of the Philadelphia Water Department and the Fairmount Park Commission, has been developed to restore this section of the park and protect your source of drinking water.



A single goose can produce 1.5 pounds of droppings per day, the 150 geese in this area can produce up to 40 tons of droppings per year!

The Belmont Water Treatment Plant, which provides fresh drinking water to Philadelphia, is immediately downstream from where the geese gather.



Project Partners:
 Fairmount Park Commission
 Philadelphia Water Department
 Morris Arboretum of the University of Pennsylvania
 PA Department of Environmental Protection
 PA Fish and Boat Commission
 PA Game Commission
 Philadelphia Department of Public Health
 US Environmental Protection Agency
 US Fish and Wildlife Service

Project Funding:
 The League of Women Voters of PA, Citizen Education Fund
 Partnership for the Delaware Estuary, Inc.

For more information:
 215.685.0000 Fairmount Park Commission
 215.685.6300 Philadelphia Water Department

REMEMBER: CLEAN WATER BEGINS & ENDS WITH YOU !



Identifying Your Partners & Audience

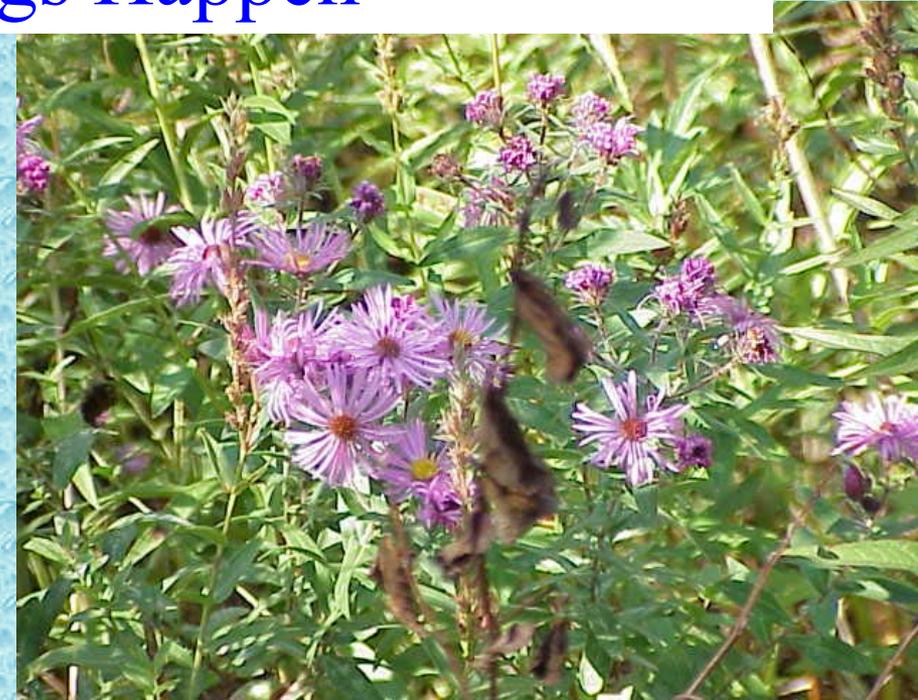


And Then Communicating & Educating





Making Things Happen





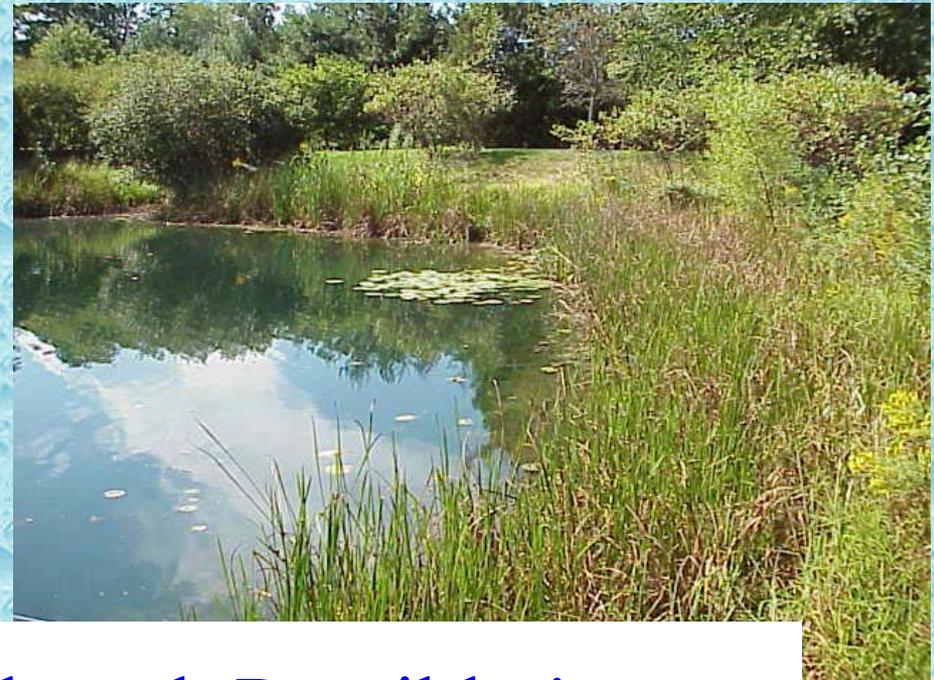
And Then Building Upon Those Successes





To Accomplish More

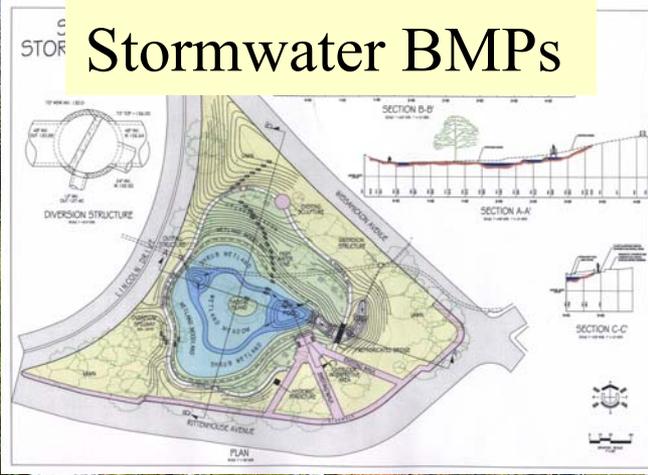
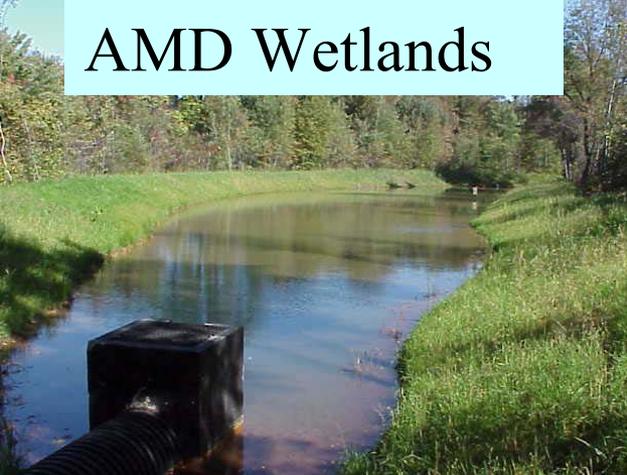




Than Was Ever Though Possible !



AMD Wetlands



Stream Restoration



Golf Courses



Agr. BMPs



BUT YOU MUST HAVE THE PARTNERS!!!!

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Education/Outreach

Residential BMPs



Meadows/Buffers



Next Steps For Philadelphia

Establish, implement, and sustain:

- Source Water Protection Resource Reserve
 - Matching and leveraging \$\$\$
- Schuylkill Action League & Action Teams
 - Watershed Wide Initiatives that are coordinated for cumulative large scale impact with major partners
- Early Warning System for Schuylkill and Delaware Rivers
 - State of the art communication and notification system with tools to aid water suppliers for emergency response

Lessons Learned

- Must define purpose, goals, and benefits clearly in non-technical terms
- Groups want to do meaningful projects, but lack technical resources and coordination to achieve them
- Water suppliers need tools to help with SWP
 - Funding
 - Regulatory backing (TMDLs, Farm Bill, etc.)
 - Regulatory cooperation and integration
- Is there a champion?

Questions



How To Make Friends and Influence People

- Influence through valid technical information
 - Funding
 - Jurisdiction
 - Must translate to measureable cost or benefit
- Conducted SWAs for watershed – 50 intakes
- Find common goals
- Achieve multiple objectives for multiple partners
- Appeal to sense of helping future generations and leaving an environmental legacy

Partners – Schuylkill River

- Over 200 potential stakeholders
- 4 county planning commissions
- 4 conservation districts
- EPA region
- 3 DEP regions
- 20 major watershed, community, and environmental organizations

Current Status

- Moving from assessment to protection
- Conducted local protection projects
 - Meadows, riparian buffers, wetlands
- Supporting and participating in projects regionally with partners
 - Education, streambank restoration, AMD mitigation, agricultural runoff
- Working to take the next step to large-scale watershed wide initiatives

Understanding The Future Impacts Of Inaction

