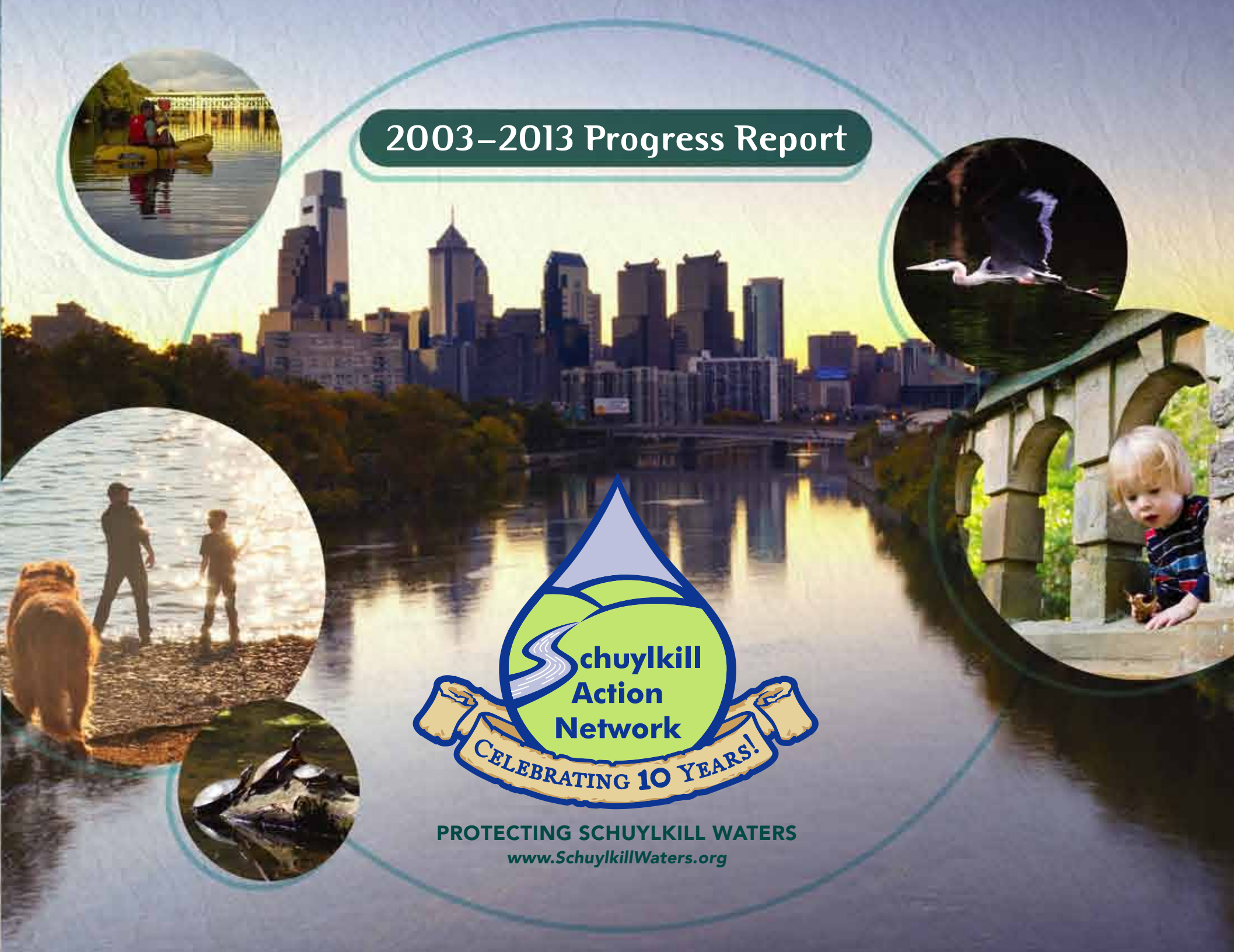


2003–2013 Progress Report

Schuylkill Action Network

CELEBRATING 10 YEARS!

PROTECTING SCHUYLKILL WATERS

www.SchuylkillWaters.org

Photo: Gary Brown

Schuylkill Action Network

CELEBRATING 10 YEARS!

Photo: Daniel Szwabiuk

Photo: Teresa Mendez-Quigley

A Decade of Watershed Partnership

For the past 10 years, the Schuylkill Action Network (SAN) has been working in partnership with local watershed organizations, land conservancies, businesses, schools, water suppliers, and local, state and federal governments to collaborate on projects and activities to protect and restore the Schuylkill Watershed. This initiative, which is coordinated by the Partnership for the Delaware Estuary, helps direct resources towards the most pressing watershed needs.

The SAN not only serves as a national model for source water protection, but it is proof that we can create positive and lasting change by working together. Over 150 partners have helped to improve the health of the watershed, protect drinking water, and increase the appreciation and value by the public of our rivers and streams. The following information in this report highlights some of the projects and activities undertaken to do this. While the work in the watershed is far from complete, we are confident that we have the partners and priorities in place to lead us through another successful 10 years of protecting Schuylkill waters.

The Schuylkill River is cleaner and healthier than it has been in well over a century.

Front Cover photo credits:
Philadelphia skyline: Dominic Mercier
Turtles: Alicia Zimmerman
Father, son, and dog: Ildiko Veres
Kayaker: Michael Moulton
Heron: Walt Hug
Child on bridge: Dominic Mercier

Photo: Carol Deihl

Drinking Water Protection

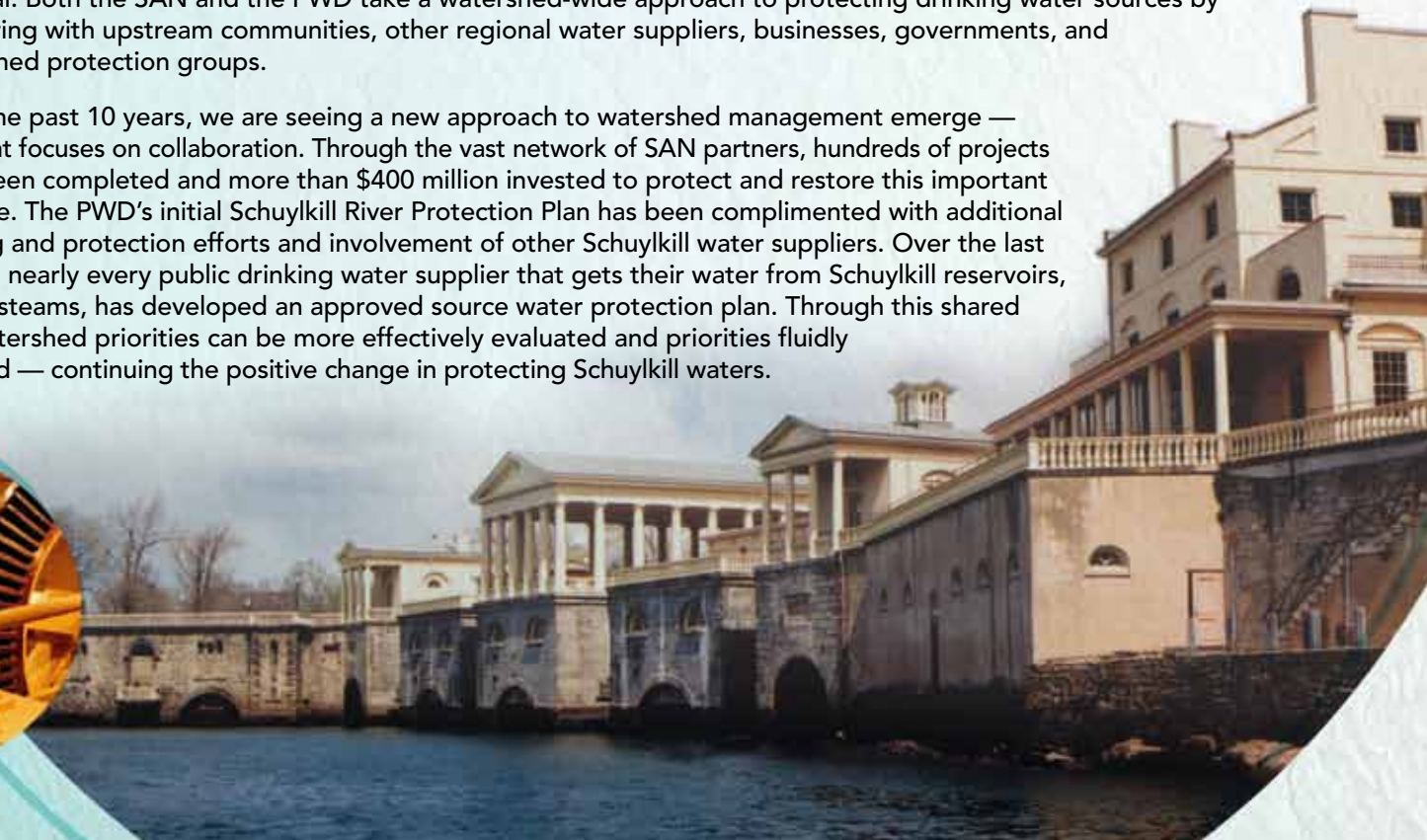
Following the passage of the Clean Water Act in the early 1970s, we started to think very differently about our rivers and streams and how they impact our daily lives. The Schuylkill River, which was once seen as a place to dispose waste, is now a vital resource for our quality of life. The river provides opportunities for recreation, helps to meet our energy needs, and is a major source of freshwater to the Delaware Estuary, a major economic driver for the region. However, one of its most important benefits is something we all rely on every day, drinking water.

More than 2 million people get their drinking water from the river and streams in the Schuylkill watershed, making protecting it a very important goal for water suppliers. Over a decade ago, the Philadelphia Water Department (PWD) embarked on a very ambitious effort to indentify and prioritize all of the potential pollution threats to the Schuylkill River, which provides about half of the city's drinking water. This process led to the creation of a protection plan for the river, laying out a road map for addressing these threats.

One of the primary goals of this plan was to create a mechanism for regional coordination across geographic, regulatory, and jurisdictional boundaries. The Schuylkill Action Network (SAN) was created shortly thereafter to help accomplish this goal. Both the SAN and the PWD take a watershed-wide approach to protecting drinking water sources by partnering with upstream communities, other regional water suppliers, businesses, governments, and watershed protection groups.

Over the past 10 years, we are seeing a new approach to watershed management emerge — one that focuses on collaboration. Through the vast network of SAN partners, hundreds of projects have been completed and more than $400 million invested to protect and restore this important resource. The PWD's initial Schuylkill River Protection Plan has been complimented with additional planning and protection efforts and involvement of other Schuylkill water suppliers. Over the last 10 years, nearly every public drinking water supplier that gets their water from Schuylkill reservoirs, rivers, or steams, has developed an approved source water protection plan. Through this shared effort, watershed priorities can be more effectively evaluated and priorities fluidly addressed — continuing the positive change in protecting Schuylkill waters.

Photo: Ozzie Moss



Agriculture Workgroup

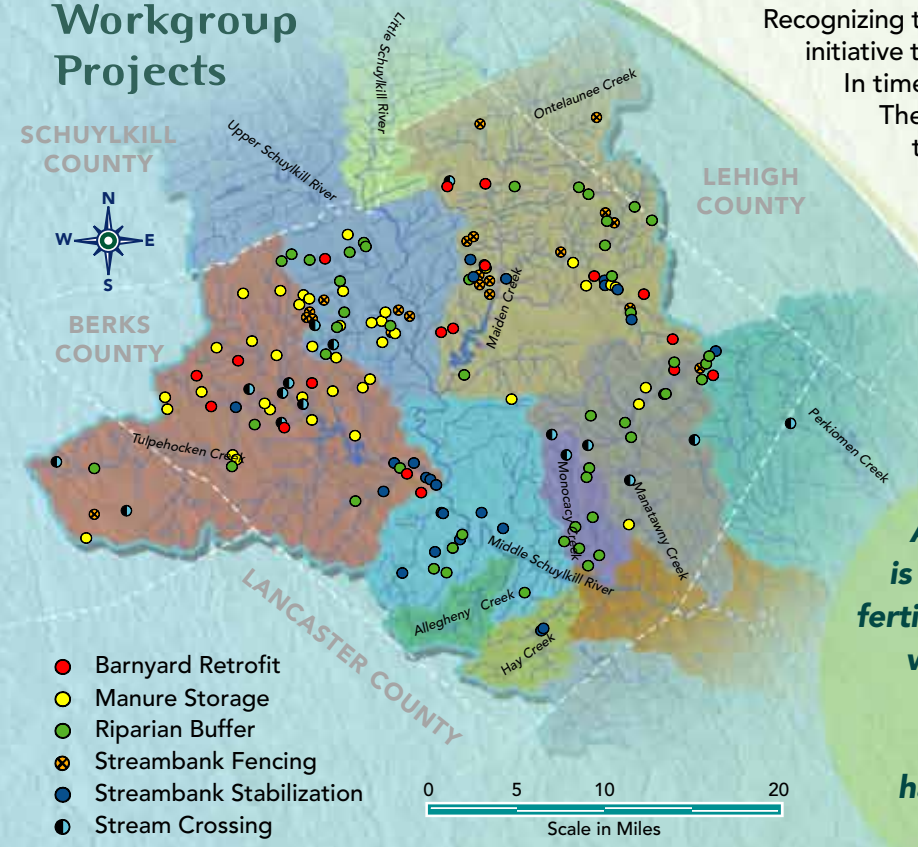
The Agriculture Workgroup has been an incredible model for partnership success! Working primarily in Berks County, the largest agriculture area in the watershed, the workgroup has been able to take great strides in reducing pollution from farms. An amazing group of agencies, non-profit organizations, businesses, and farmers have created a series of Source Water Protection projects on farms that prove a network can have a huge impact on the health of our rivers and creeks.

Over the past 10 years, the Berks Conservancy, Berks Conservation District, Natural Resources Conservation Service (NRCS), and Berks Ag Land Preservation groups have completed more than 175 farm improvement projects such as streambank fencing, riparian buffer planting, animal crossings, and other structural practices. Rather than doing projects one at a time, the workgroup has been taking a "whole-farm" approach, addressing all of the major pollution problems at each site. This has led to multiple partner collaborations and new sources of funding.

Recognizing the need to document improvements and measure the level of success, the workgroup led an initiative to collect information on stream health on select farms where projects have been completed. In time, these results may be used to help remove streams from the state's impaired streams list. The workgroup is also involved in other monitoring efforts, including a collaborative study on the sources of *Cryptosporidium*, a harmful bacteria to people, which is being led by the Philadelphia Water Department and Lehigh University.

All of this work is leading to improvement of critical water supplies for downstream users. Local water suppliers including the Kutztown Water Company, Reading Area Water Authority, and the Western Berks Water Authority each contribute their expertise and finances to help address agriculture pollution in the watershed. To help direct local resources to solve these problems, the Berks Conservancy started the Berks Watershed Restoration Fund. In 2012, the fund welcomed one of its newest supporters, Kutztown's Saucony Creek Brewing Company, who will be donating some proceeds of their Stonefly IPA back into the watershed.

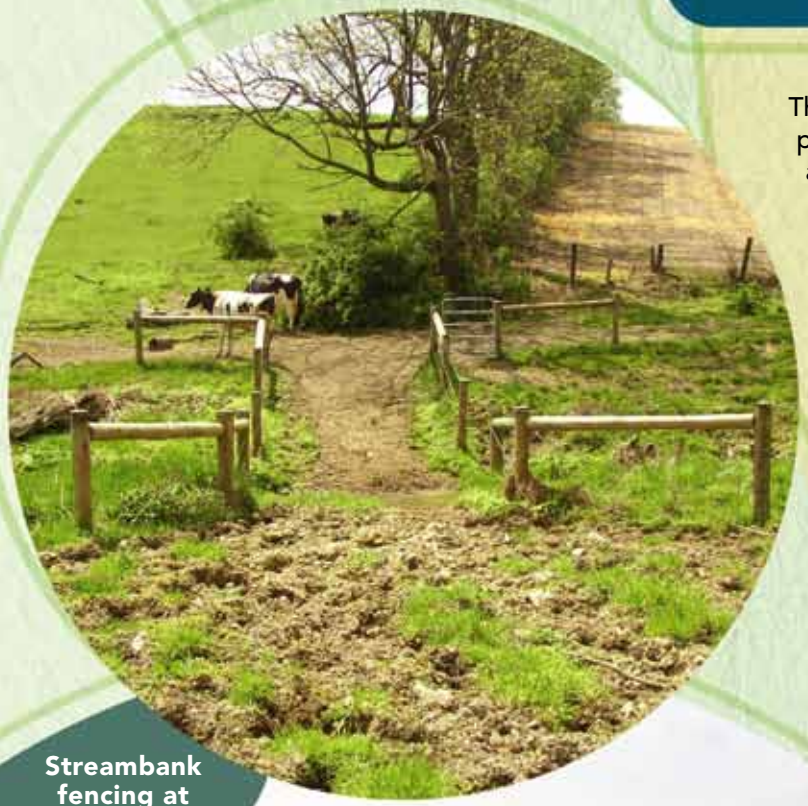
Agriculture Workgroup Projects



Agriculture pollution is caused by pesticides, fertilizers, and animal waste washing into streams every time it rains. Over 175 projects have been completed to address this.

Project Spotlight: Davis Farm

The Davis Farm project is an excellent example of the improvements that can be made when proper practices are installed to reduce polluted runoff from agricultural areas. This "before" example of a livestock farm shows a collapsed barnyard with manure runoff going directly into the adjacent creek. The farm didn't have a storage facility, so manure was spread on fields 365 days per year. Today, a manure storage facility prevents runoff from entering the stream and reducing pollution to the Saucony Creek. More work is planned for this project, including surface grading and seeding, animal walkways, streambank fencing, and new pasture areas for grazing.



Streambank fencing at Epting Farm

BEFORE
Davis Farm

AFTER
Davis Farm

Abandoned Mine Drainage Workgroup

Over $14 million have been invested to complete 45 projects to reduce the impact of AMD in the watershed.

Over 200 miles of streams in the headwaters of the Schuylkill River are degraded from pollution resulting from Abandoned Mine Drainage (AMD). Although the sources for AMD are found in only the upper portions of the Schuylkill watershed, the impacts can be felt downstream all the way to the Delaware River. Over the past 10 years, the SAN AMD workgroup has made significant progress in cleaning up many of these problems by concentrating on remediating or eliminating mine drainage, restoring floodplains, and educating and involving the public in the effort to establish the river as a resource.

Treating AMD presents many challenges that require creativity and collaboration between local communities, watershed groups, mine operators, and government agencies. One such project is located in the small community of Mary D, where AMD discharges from abandoned boreholes into the Schuylkill River. The only available area to treat this discharge was at the community baseball field. Through the efforts of the SAN partners, funding was raised and a new recreation facility complex was built on a neighboring property donated by a local mining company, allowing a treatment wetland to be built on the former site.

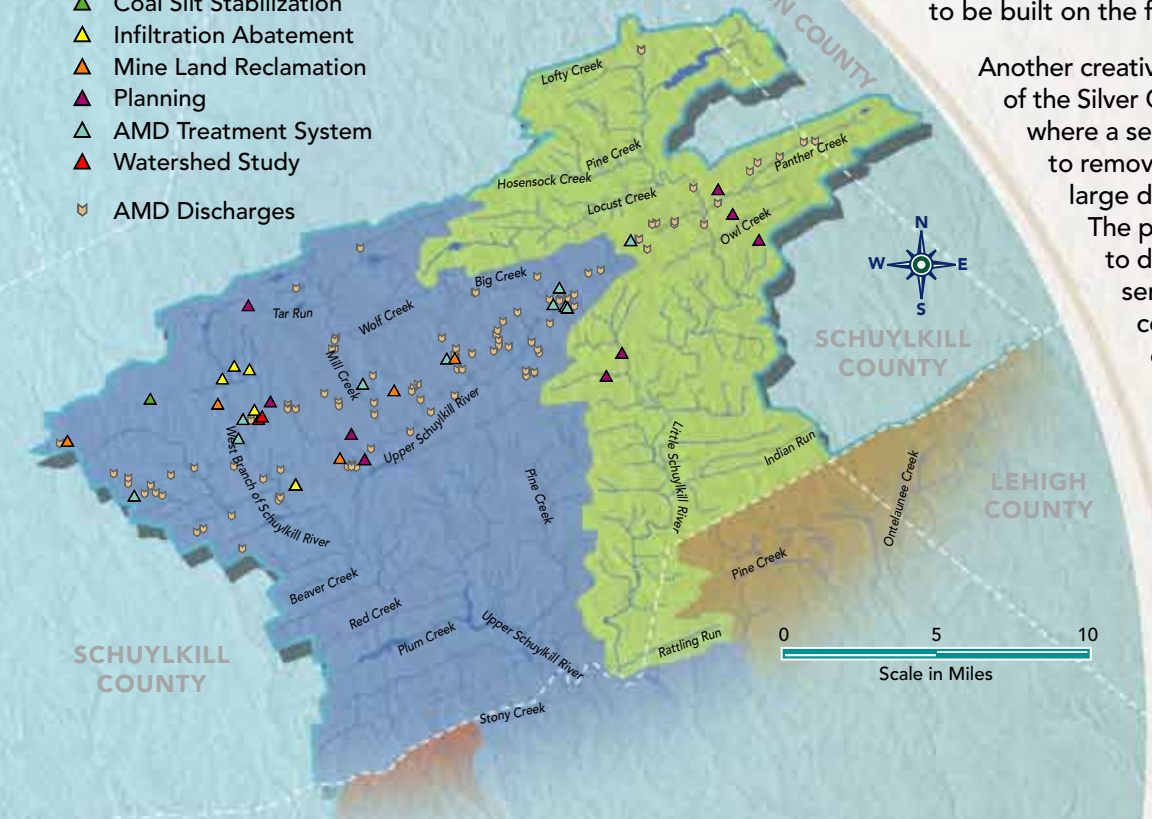
Another creative project is located at the site of the Silver Creek AMD treatment system, where a series of ponds were constructed to remove iron and other metals from a large discharge to the Schuylkill River. The project is used as an educational area to demonstrate new re-vegetation practices, serves as a source of water for the local fire company, and in the near future, will host an educational walking trail.

There have been significant accomplishments addressing AMD because of the efforts and dedication of the local partners that make up this workgroup. Over the past 10 years, more than $14 million have been invested in the watershed to implement nearly 45 projects. Dozens of partners have worked together to develop new treatment technologies, leverage resources, and implement projects to clean up the river.

AMD Workgroup Projects

- Coal Silt Stabilization
- Infiltration Abatement
- Mine Land Reclamation
- Planning
- AMD Treatment System
- Watershed Study

AMD Discharges



Project Spotlight: Pine Knot Watershed

The Pine Knot Discharge is the largest source of iron and manganese pollution in the Schuylkill Watershed, spilling over 35 million gallons of polluted water into the Schuylkill River each day. Much of this spillage originates from stormwater seeping into the mine system through fractures in the surface above. Since there is not enough room to build a treatment system for a discharge of this size, work is being done to make the discharge smaller. For the past several years, the workgroup has been involved in conducting a feasibility study for treating the discharge. The 20 square mile watershed that drains to the Pine Knot discharge is complex due to intense underground and surface mining. The project includes intensive data collection by the U.S. Geologic Survey and modeling of surface and groundwater impacts on the mine discharge. The U.S. Army Corps of Engineers created model simulations of runoff and infiltration during a storm event. The Schuylkill Conservation District and Schuylkill Headwaters Association have been leading a series of projects to keep water on the surface and out of the underground mine pool. While there is still much work to do and more information to collect to fully address this problem, this creative and collaborative approach is helping meet the challenge.

Pathogen and Compliance Workgroup

The source water assessment report for the Schuylkill River watershed found that improper waste water collection and treatment impacts the quality of drinking water supplies, recreational activities, and aquatic life through contributions of pathogens and other pollutants. The Pathogen and Compliance Workgroup is taking steps to address this issue by working with waste water utilities, regulatory agencies, and local leaders on a variety of planning, reporting, maintenance and operation, and appropriate enforcement activities.

More than $365 million worth of infrastructure upgrades over the past 10 years are keeping pathogens out of the watershed and improving drinking water.

Tackling this issue in a watershed the size of the Schuylkill is not always easy. There are over 3,500 permitted dischargers, 78 large sewage treatment plants, and thousands of household septic systems that may cause pathogen problems in the watershed. The workgroup is focused on providing technical assistance to sewage treatment plant operators within the watershed, reducing sewage discharges, improving sewer system capacity, and improving the operation and maintenance of on-site septic systems.

Over the past 10 years, many improvements have been made in the watershed to address these problems. One recent example of success can be found in Tamaqua, PA. In late 2010, PA DEP identified 81 suspected unpermitted discharges to Wabash and Panther Creeks. PA DEP worked with the borough of Tamaqua to verify the discharges and develop a plan and time table to connect them to the borough's sewer systems. Throughout the watershed, the majority of these types of discharges, commonly referred to as wildcat sewers, have been eliminated or are being addressed.

Ailing infrastructure in the watershed is often a cause of the pathogen problem. The workgroup has been assisting waste water treatment plants with upgrades and improvements in technology. Supporting this, PENNVEST, a major partner in the workgroup, invested over $360 million to upgrade sewage treatment plants, expand sewage conveyance systems, and reduce nonpoint source pollution impacts in the watershed. One significant accomplishment for the workgroup is the Reading Sewage Treatment Plant, which is the largest municipal discharger to the Schuylkill. The treatment plant had been a source of pollution to the watershed for many years, but in 2005 after entering into a Consent Decree, upgrades are being planned and improvements made to the system.

Pathogen and Compliance Workgroup Projects

TOTAL DOLLARS SPENT BY MAJOR WATERSHED

- $50 million – $200 million
- $15 million – $50 million
- $5 million – $15 million
- Less than $5 million

The workgroup's regulatory community has also led enforcement efforts when necessary. In 2006, 25 gallons of potassium thiocyanate, a chemical commonly used in vaccines, was released by Merck into a sewage treatment plant, killing over 1,000 fish and threatening water supplies. In late 2007, Merck agreed to a $20 million settlement and paid over $1.5 million in fines.

In the next several years, the workgroup will strive to maintain the current level of coordination and communication provided by wastewater treatment compliance practitioners, while identifying new opportunities to improve compliance and reduce threats to drinking water outbreaks. The workgroup will also maintain its focus on reducing illegal discharges, supporting and promoting the Delaware Valley Early Warning System (see below), and supporting planning efforts aimed at reducing pathogen introduction in the watershed.

Project Spotlight: EWS Delaware Valley Early Warning System

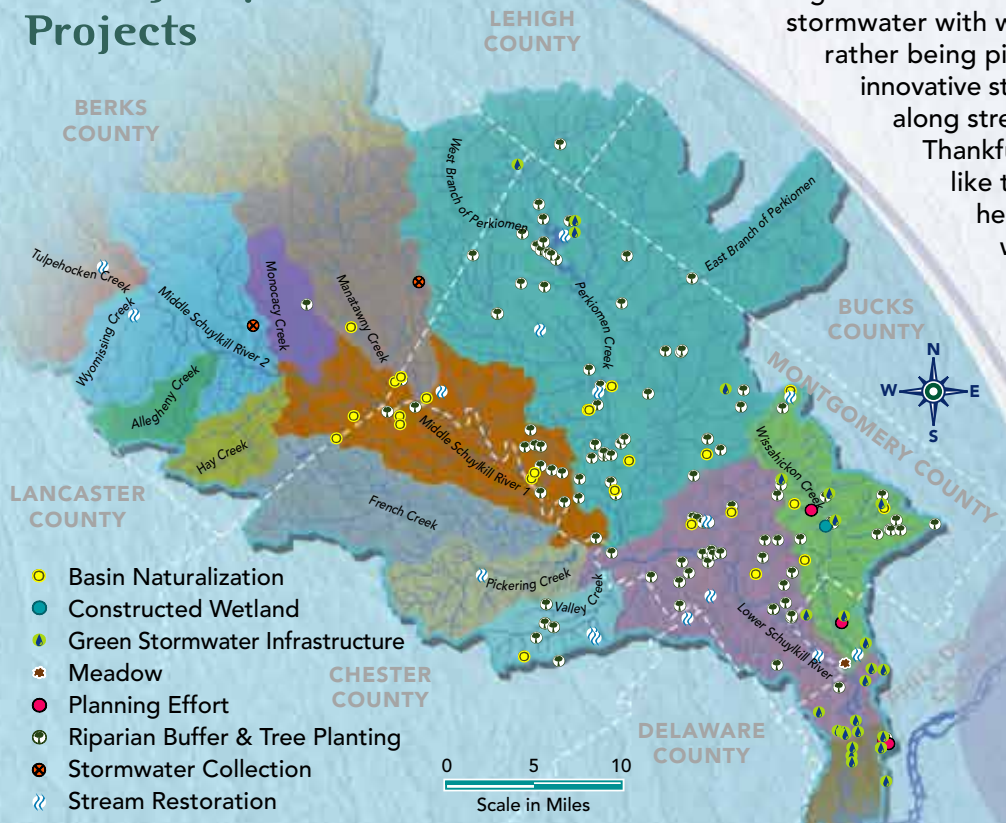
Early notification of changes in river water quality are important to public water suppliers whose drinking water intakes are on both the Schuylkill and Delaware Rivers. In 2004, the Philadelphia Water Department, with funding provided by the Pennsylvania Department of Environmental Protection and the U.S. Environmental Protection Agency, developed the Delaware Valley Early Warning System. The system provides a secure and centralized location through which the Early Warning System participants, including water utility personnel, emergency responders, government agencies, and industry representatives, can share information about source water quality and emergency or contamination events. The system is operated and maintained by the Philadelphia Water Department with contributions from the users.

Stormwater Workgroup

Stormwater is one of the biggest sources of pollution in the Schuylkill Watershed. For decades, open space and forests in the watershed were replaced with hard, impervious surfaces such as buildings, paved roads, sidewalks, and parking lots. The runoff created by these developed areas was often compounded with more concrete in the form of pipes and channels to transfer stormwater to streams. When it rains, water flows over these hard surfaces and carries dirt, trash, and other land-based pollutants into our creeks and rivers and then out to the Delaware Bay.

But today, stormwater management is looking far less gray because of the collaborative efforts of organizations such as the SAN Stormwater Workgroup. Workgroup partners have been helping local governments, businesses, and informed citizens change the way we think about stormwater; and because of this, the tide of stormwater management is turning decidedly green. Using the model of Mother Nature, we are now treating stormwater with water-loving plants and trees, which allows water to soak back into the ground rather being piped to the closest stream. This is all happening through the installation of innovative stormwater practices such as swales, naturalized basins, green roofs, tree plantings along streams, rain gardens, and other activities designed to capture and absorb runoff. Thankfully, we are starting to see this take place on larger scales. Innovative programs like the Philadelphia Water Department's *Green City, Clean Waters* initiative are helping to prove that these better stormwater management options can not only work, but make both economic and environmental sense.

Stormwater Workgroup Projects



- Basin Naturalization
- Constructed Wetland
- Green Stormwater Infrastructure
- Meadow
- Planning Effort
- Riparian Buffer & Tree Planting
- Stormwater Collection
- Stream Restoration

Over the past 10 years, the SAN stormwater workgroup has served as an advisory committee for state and local governments, an ordinance review board for municipalities, and a support group for large and small projects throughout the Schuylkill watershed. Working together, our member organizations have developed collaborative grant proposals and held educational and training workshops for various audiences.

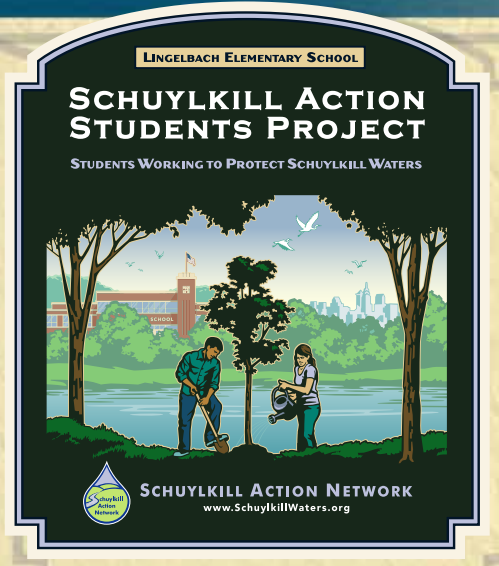
More than $21 million have been invested to complete over 200 projects to reduce stormwater pollution problems throughout the watershed.

BEFORE (Fall 2005)
Norristown Farm Park
streambank stabilization

AFTER (August 2008)
A healthy, stable streambank

Project Spotlight: Schuylkill Action Students

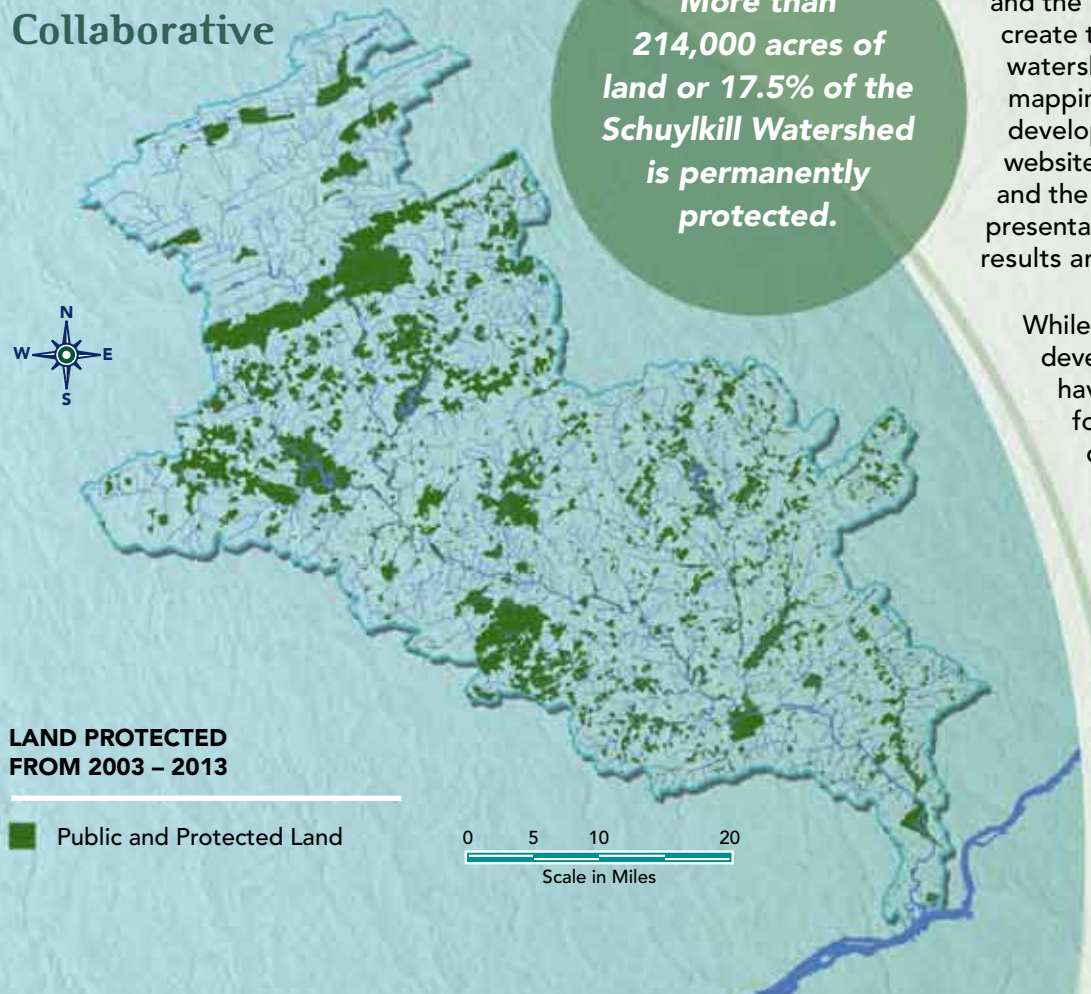
One of the most serious threats to the water quality of the Schuylkill River Watershed is stormwater pollution. At greatest risk from this pollution and need for protection are the many smaller and more vulnerable headwater streams. In an effort to address this need, the SAN Stormwater Workgroup initiated the Schuylkill Action Students program, which aims to complete innovative stormwater practices on school campuses along these steams. Schools, which are one of the largest landowners in the watershed, provide a direct connection to many critical waterways. Completing projects with schools also creates a unique opportunity to engage students, families, and regional stakeholders. Since its start in 2011, the initiative has helped schools complete over a dozen projects, including rain gardens, tree plantings, meadows, and stabilizing streambanks.



Watershed Land Protection Collaborative

The SAN's Watershed Land Protection Collaborative (WLC) has come a long way since its inception in 2005. The WLC began as a subset of the Stormwater workgroup, and gained enough momentum and interest to become a full-fledged group. The WLC was conceived to provide the expertise and energy to identify and protect land most critical for drinking water protection needs. It is the only SAN workgroup that focuses on preventing impairments, and serves as an important forum for collaboration between agencies such as the PA Department of Environmental Protection (DEP) and the PA Department of Conservation and Natural Resources (DCNR). Over the last seven years, the WLC created and refined a list of priority lands and generated programs to support action on the findings.

Watershed Land Protection Collaborative



More than 214,000 acres of land or 17.5% of the Schuylkill Watershed is permanently protected.

The original prioritization work was funded through a PA DEP Growing Greener grant. WLC member organizations, Natural Lands Trust, Philadelphia Water Department, and the Delaware Valley Regional Planning Commission, led the charge to create the prioritization tool which ranked land in the Schuylkill River watershed based on its value in protecting drinking water. The mapping was completed in 2007, and the WLC shifted focus from developing a robust tool to promoting its use. The Priority Land website was created (***http://www.schuylkillprioritylands.org***), and the group drove traffic to the site through brochures and presentations. The site gives users access to prioritization results and information about the prioritization process.

While the WLC's initial work was data-driven (in order to develop the tool), the group's efforts from 2009 onward have been increasingly focused on utilizing the tool for on-the-ground outreach and results. The group completed and analyzed two case studies where partner organizations Berks County Conservancy and Montgomery County Lands Trust used the tool to improve zoning and identify land protection priorities in two different municipalities. More recently, the WLC reached out to municipal officials of townships in priority areas to inform them about the importance of their land and how to use the tool to develop conservation goals. In 2011, the WLC, along with the Schuylkill River Heritage Fund advisory board, started a land transaction assistance program to help complete transactions for the protection of priority lands.

Photo: Schuylkill County Municipal Authority

Moving forward, the WLC has set a five-year goal of maintaining or increasing the pace of priority lands protected, and endeavors to continue its on-the-ground work through land trusts and conservancies to aid in priority land preservation. The workgroup continues to conceive of new and interesting ways to engage municipal officials and water purveyors in conservation efforts, and anticipates working with other SAN workgroups to meet its goals. By promoting a sustainable landscape in the Schuylkill River watershed through strategic conservation and efficient land resource use, the integrity of water supplies for future generations can be protected.

Photo: Walt Hug

Photo: Ildiko Veres

Project Spotlight: Land Transaction Assistance Program

In 2011, the SAN WLC initiated the Land Transaction Assistance Program, which provides small grants to assist with transaction costs for permanent land protection projects (conservation easements, full fee acquisitions, donations, etc.) within the Schuylkill River watershed. Grants can be awarded to qualified non-profit tax-exempt 501(c)(3) conservation organizations or units of government. The purpose of these grants is to incentivize and facilitate the protection of high-priority lands for water quality and habitat protection in the Schuylkill River watershed. Funding for the program has been provided by the Partnership for the Delaware Estuary, Philadelphia Water Department, and Exelon Nuclear Corporation; and is administered through the Schuylkill River Restoration Fund. To date, the land transaction assistance program has helped complete a total of six easements covering more than 500 acres.

Education and Outreach Workgroup

A clean and healthy Schuylkill River is only possible if we all pitch in and do our part. Over the past 10 years, the SAN Education and Outreach Workgroup has taken steps to educate the community on ways they can help protect and restore the river. One of the first tasks completed by the workgroup was the creation of a tool to get all of the SAN partners working together: the ***SchuylkillWaters.org*** website. The website provides a wealth of information about the SAN, its projects, and the River itself. It also has a behind the scenes feature where committee members can share information and easily communicate with each other. In addition to the website, the workgroup created various informative displays, outreach materials, banners, and several videos to help get the word out on protecting Schuylkill waters.

Photo: John Ratana

After streamlining the SAN's internal communications, the workgroup took aim at promoting opportunities for people to get out and enjoy the river. While the Schuylkill is an important resource for drinking water, it is also a place where people go to have fun and recreate. Each year, the Schuylkill hosts some great public river events and activities including regattas, sojourns, triathlons, and river festivals. Countless people are also returning to the river to boat, fish, walk, bike, or run along the Schuylkill River Trail. The workgroup also wanted to help people take a more active role in keeping the watershed clean. For the past four years, the SAN has helped host the Schuylkill Scrub, a series of watershed-wide cleanup events. In 2012, over 90 cleanups with thousands of volunteers took place throughout the watershed.

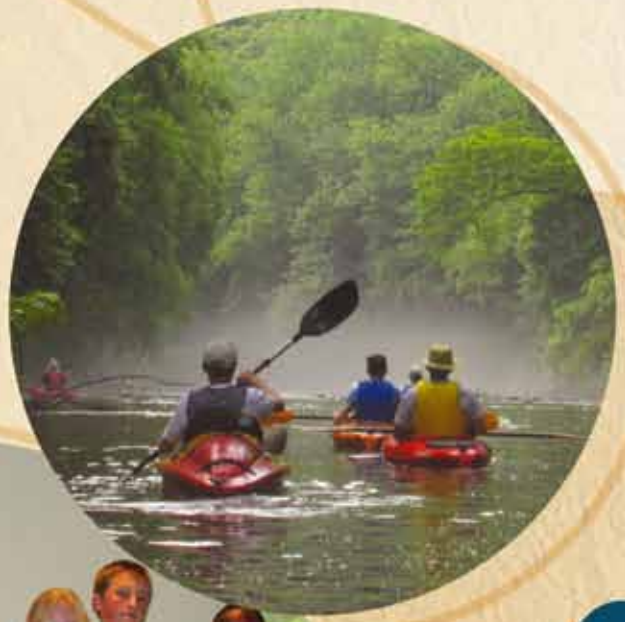
River Events Stastitics 2005-2012

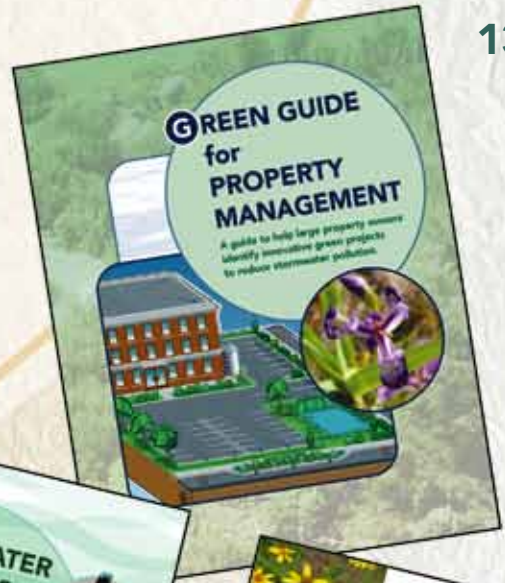
Dad Vail Regatta	26,600
Past Triathlons	3,000
Philadelphia Insurance Triathlon	26,500
Philadelphia Women's Triathlon	5,769
PWD Fishing Festival	1,451
Schuylkill Dragon Boat Races	21,650
Schuylkill River Festival	21,000
Schuylkill River Sojourn	2,108
SheRox Philly Triathlon	6,038
Stotesbury Cup Regatta	40,600
TOTAL PARTICIPANTS	154,716

To learn more about the Schuylkill River, SAN projects, or become a member, visit us online at www.SchuykillWaters.org.

The workgroup has also found ways to raise the awareness of the importance of the river. Each year, the SAN honors students whose projects help to keep our rivers and creeks clean through the Drinking Water Scholastic Awards. The workgroup also provides resources to teachers to link watershed activities with school curriculum through teacher trainings, outreach materials, and curriculum support. In 2012, the workgroup also offered a new opportunity for individuals to show their appreciation of the river through the Schuylkill Shots photo competition. Over 150 images were entered into the contest capturing great examples of why the river is important to so many people.

The workgroup is also expanding highly successful outreach programs by replicating them throughout the watershed. Stormwater guides, described below, teach property owners how to capture and filter polluted runnoff on their property. A pilot pharmaceutical take back program, teaching people the proper way to dispose of their unused medications, is reaching completion. Also, a spokesdog competition to help educate dog owners of the importance of picking up pet waste is just getting underway. It has been exciting to see the rewards of over a decade's worth of outreach in the Schuylkill. The workgroup has many more ideas in store and looks forward to another 10 years of success.





Project Spotlight: Stormwater Guides

Stormwater is an issue that impacts many communities throughout the watershed. With new safeguards, flooding concerns, and changing climates, stormwater is a topic that is on the minds of many. It is also a cause of over 30% of all polluted streams in the watershed. To help solve this problem and engage communities and landowners in the solution, the SAN developed a series of stormwater education guides and outreach materials. These publications provide innovative examples of managing stormwater for homeowners, schools, municipalities, and businesses. They are available for download at ***www.schuylkillwaters.org/san_publications***.

Schuylkill River Restoration Fund

The Schuylkill River Restoration Fund is starting its eighth year working to improve the quality and quantity of the Schuylkill River waters through its unique partnership and grant program. Since its inception, over $2.2 million have been contributed to the fund from Exelon Nuclear Corporation, the Philadelphia Water Department, Aqua Pennsylvania, and the Partnership for the Delaware Estuary.

Over 30 projects have been funded through this program since it was created in 2006. Projects focusing on abandoned mine drainage, agricultural remediation, stormwater runoff improvements, and protecting high priority land are supported through this initiative. All projects address priority problems and help protect drinking water supplies in the Schuylkill watershed.

One of the most unique aspects of this project is the public/private partnerships that are highlighted not only through our funding partners and our grant constituents, but also through our leadership team. Individuals from the Environmental Protection Agency, PA DEP, Delaware River Basin Commission, Philadelphia Water Department, Exelon Nuclear Corporation, the Partnership for the Delaware Estuary, and the Schuylkill Action Network make up the Advisory Committee that oversees the program.

Photo: Ildiko Veres

Photo: Paul Mackey

BEFORE
Eroded streambank

AFTER
Healthy streambank

Become a Schuylkill Waters Partner

Photo: Kelly Jo Lewis

The Schuylkill River Restoration Fund has helped to direct critical resources to restore and protect our Schuylkill waters. In addition to the 2 million people that rely on the river for drinking water, the Schuylkill River plays a critical role as an economic engine for the region. This funding initiative allows businesses, water suppliers, and other watershed stakeholders to invest in one of our most significant natural resources.

By participating as a fund donor, you can be assured that your contributions will be targeted at science-based projects that will result in measureable improvements to the watershed. Over the past seven years, all money disturbed through the fund has been matched by over 50% of public and private dollars. All contributions are tax-deductible and can be targeted to certain geographic regions or to address specific watershed areas. To learn more about the fund and find out how you can become a watershed partner, please contact the Schuylkill River Heritage Area or SAN Coordinator.

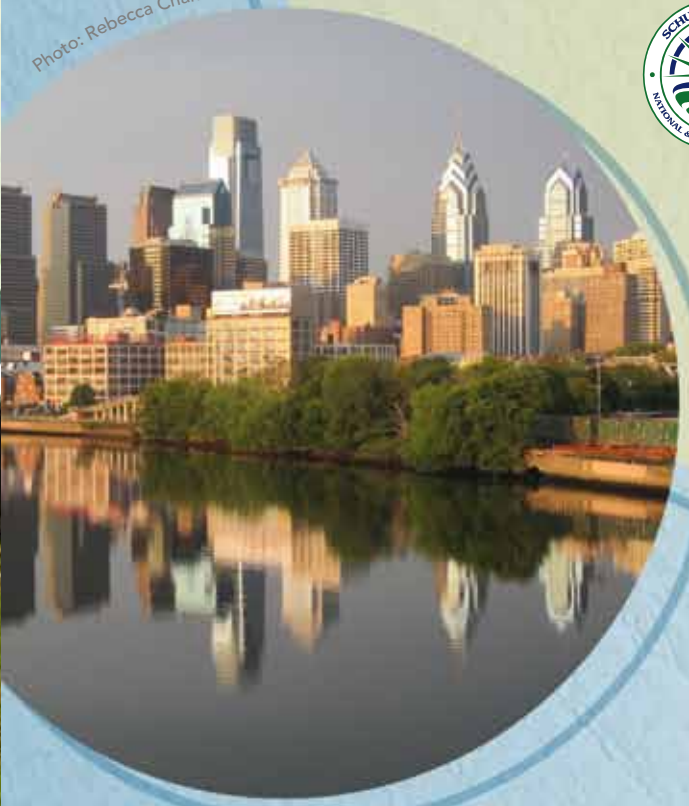


Photo: Rebecca Chanoux

SCHUYLKILL RIVER
NATIONAL & STATE HERITAGE AREA

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www.SchuylkillRiver.org

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Photo: Dawn Barger

Photo: Kim Glodek

Schuylkill Action Network Members

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AKRF Inc.
Albright College
Alfred Benesch & Company
Ambler Borough Water Department
AMEC
Aqua Pennsylvania
Audubon Pennsylvania
Barry Isett and Associates
Berks County Agricultural Land Preservation
Berks County Conservancy
Berks County Conservation District
Berks County Planning Commission
Berks Gas Truth
Birdsboro Municipal Water Authority
Blythe Township Municipal Authority
Boyertown Water Authority
Bucks County Planning Commission
Center for Watershed Protection
Chester County Department of Environmental Health Protection
Chester County Planning Commission
Chester County Water Resources Authority
Christopher Dock High School
City of Philadelphia
City of Reading
Clean Water Action
Conrad Weiser Middle School
Delaware County Planning Department
Delaware River & Bay Authority
Delaware River Basin Commission
Delaware Valley Regional Planning Commission
Destination Schuylkill River
Drexel University
East Falls Development Corporation
East Greenville Borough Water Department
East Norriton Middle School
Eastern PA Coalition for Abandoned Mine Reclamation
EcoExpress – GreenTreks
Evans Elementary School
Exelon Corporation
F.X. Browne Inc.
Friends of Mingo Creek
Friends of the Wissahickon
Geo-Life, Inc.
Germantown Academy
Green Valleys Association
Greenfield Elementary School
Greenspace Alliance
GreenTreks
Hamburg Municipal Water & Sewer Authority
Hay Creek Watershed Association
Heritage Conservancy
Keep Tap Water Safe
Kent Surveyors and Engineers
Kutztown Middle School
L. Robert Kimball & Associates, Inc.
Land & Stream Improvements, LLC
Lankenau High School
Lebanon County Conservation District
Lehigh County Conservation District
Limerick Elementary School
Lingelbach Elementary School
Lower Merion Conservancy
Lower Merion Historical Society
M&M Solutions
Maiden Creek Watershed Association
Meliora Design
Michael Baker Jr., Inc.
Miller Environmental, Inc.
Minersville Area Water Authority
Miquon School
Montgomery County Planning Commission
Montgomery County
Montgomery County Conservation District
Montgomery County Lands Trust
Muhlenberg Township
Native Return, LLC
Natural Lands Trust
Natural Resource Conservation Service
Nature Conservancy
North Wales Water Authority
Owen J. Roberts Middle School
PA Department of Conservation and Natural Resources
Partnership for the Delaware Estuary
Penn State Public Broadcasting
Penn State University
Pennsylvania American Water Company
Pennsylvania DCNR Bureau of Forestry
Pennsylvania Department of Environmental Protection
Pennsylvania Environmental Council
Pennsylvania Farm Bureau
Pennsylvania Fish and Boat Commission
Pennsylvania Forestry Association
Pennsylvania Game Commission
Pennsylvania Horticultural Society
Pennsylvania Organization for Watersheds and Rivers
Pennsylvania Rural Water Association
Pennsylvania Sea Grant
PENNVEST
Perkiomen Watershed Conservancy
Philadelphia Water Department
Pomona Grange
Port Indian Civic and Boating Association
Pottstown Borough Water Authority
Radnor Conservancy
RCAP Solutions
Reading Area Community College
Reading Area Water Authority
RETTEW Associates, Inc.
River Alert Information Network (RAIN)
Riverbend Environmental Education Center
Robeson Elementary School
Rosetree Consulting
Saucony Creek Brewing Company
Schuylkill Canal Association, Inc.
Schuylkill Center for Environmental Education
Schuylkill County Conservation District
Schuylkill County Municipal Authority
Schuylkill County Planning Commission
Schuylkill Haven Borough Water
Schuylkill Headwaters Association
Schuylkill River National and State Heritage Area
Schuylkill RiverKeeper
Sierra Club
Southeastern PA Resource Conservation & Development Council
Spotts, Stevens and McCoy, Inc.
Spring City Borough
Stormwater PA
Stroud Water Research Center
Sustainable Business Network
Sustainable Choices
Tamaqua Area Water Authority
Temple University
The Paradise Watchdogs
Towson University Center for GIS
Trout Unlimited
U.S. Army Corps of Engineers
U.S. Department of Agriculture
U.S. Environmental Protection Agency
U.S. Fish & Wildlife Service
U.S. Forest Service
U.S. Geological Survey
U.S. Office of Surface Mining
UJMN Architects & Designers
Unicorn Management Consultants LLC
University of Pennsylvania
Upper Merion School District
Upper Merion Township
Upper Perkiomen School District
URS Corporation
Ursinus College
Valley Creek Restoration Partnership
Valley Forge Watershed Association
Villanova University
Water Resources Education Network
West Reading Elm Street
Western Berks Water Authority
Whitpain Township
William Penn Foundation
Wissahickon Restoration Volunteers
Wissahickon Valley Watershed Association
Women's Health & Environmental Network

Schuylkill Watershed Projects: 2003–2013

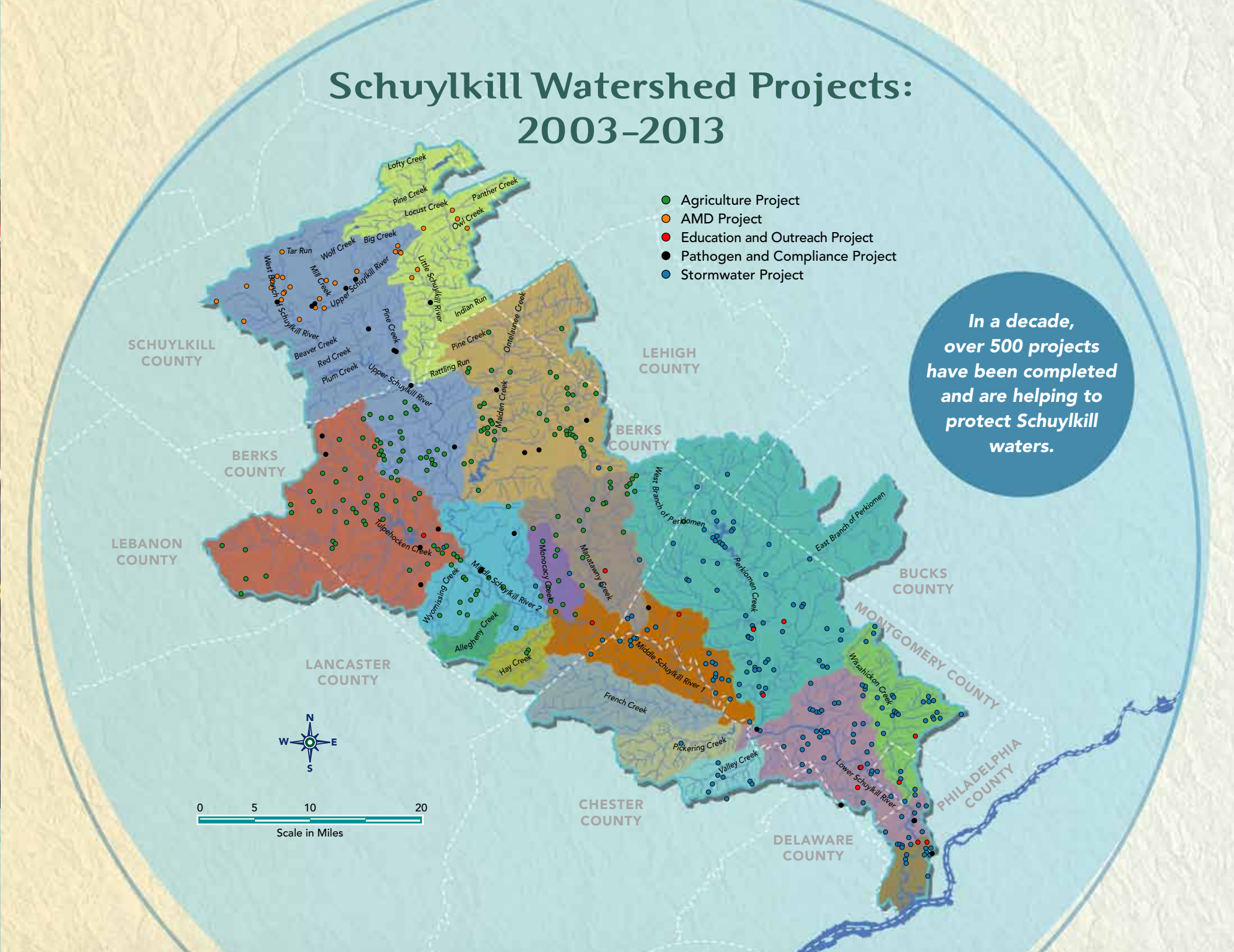

Photo: Ildiko Veres

Photo: Yael Grumbach

Schuylkill Action Network

CELEBRATING 10 YEARS!

Photo: Carol Brightbill

Photo: Schuylkill Action Network

Photo: Mykola Kosyk

Members of the Schuylkill Action Network share information, expertise, and technology to help each other achieve a shared vision of clean water and a healthy environment for the Schuylkill River and its tributaries.

Partnership for the Delaware Estuary
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The Partnership for the Delaware Estuary, a National Estuary Program, leads science-based and collaborative efforts to improve the tidal Delaware River and Bay, which spans Delaware, New Jersey, and Pennsylvania.

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
www.depweb.state.pa.us

www.epa.gov/region03

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Background photo: Sarah Whitman