



**SCHUYLKILL
ACTION NETWORK**

Protecting Schuylkill Waters
www.SchuylkillWaters.org



Photo by Carol Brightbill



Photo by Kim Wood



Photo by Mike Porchik

2014 PROGRESS REPORT



Photo by Carol Tersine

Larry Lloyd teaches students at Robeson Elementary how to plant a tree.



STORMWATER WORKGROUP

Stormwater continues to be one of the biggest challenges facing the Schuylkill Watershed, and we have a great team of dedicated partners working on this issue. In 2013, we have seen many impressive projects demonstrating better ways to manage stormwater and educate our communities. In March, the Schuylkill Action Network (SAN) Stormwater workgroup held its quarterly meeting at the Germantown Academy, which included a field trip and information exchange on the Academy's green stormwater management projects including harvesting rain from school buildings, and capturing and slowing the flow of stormwater using a reforested 6-acre preserve, engineered wetlands and meadows, rain gardens and athletic fields. Later in the year, the workgroup also got to see the newly installed Perkiomen Watershed Conservancy stormwater projects, which includes 3 rain gardens and a rain collection and reuse system that incorporates rain barrels and a 500 gallon cistern.

In 2013, the Schuylkill Action Student program was very successful in completing projects and obtaining funding for future work. At East Norriton Middle School, a rain garden and meadow were planted in addition to stream bank restoration and tree planting along a tributary to Stony Creek. A green campus overhaul was completed at the Robeson Elementary Center in Berks County, which included a naturalized stormwater basin, removal of paved area, tree plantings, and other projects to reduce runoff into Indian Creek. Other projects completed include: a meadow at the Cook Wissahickon School in Philadelphia; rain gardens at the Montessori School in the Wissahickon and the Schuylkill Elementary School near Phoenixville; and a riparian buffer along the Perkiomen Creek installed by the students of the Upper Perkiomen High School. Since 2011, the program has worked with over 15 schools and more than 1,500 volunteers to "green" school campuses.

AGRICULTURE WORKGROUP

The Agriculture (Ag) workgroup had a very busy year working with farmers to protect the streams throughout the watershed. In partnership with the Natural Resources and Conservation Service, local partners such as the Berks Conservancy and Berks County Conservation District helped farmers to: install 9 manure storage facilities; add 8 acres of riparian buffers; upgrade 6 barnyards to prevent stormwater pollution; and install 2 stream crossings for animals to prevent erosion. The Berks Conservation District also completed the first Ag project funded through Pennvest, a big undertaking which is now helping to keep sediments and nutrients out of the waterways. The Berks Conservancy also finished up work on one of its Schuylkill River Restoration Fund projects, which installed a manure storage facility and stormwater controls and is keeping all Ag runoff out of the stream.



Fencing helps protect riparian buffers from cows.



An example of a newly installed stream crossing to prevent erosion.

In addition to the farm restoration projects, many workgroup partners were heavily involved in a new watershed initiative of the William Penn Foundation to address agricultural pollution in the Maiden, Tulpehocken, and Upper Perkiomen creek watersheds. This past summer and fall, a select group of workgroup partners worked diligently to develop an implementation plan for the Foundation-defined "Middle Schuylkill Cluster". The plan identifies specific restoration, engagement, and monitoring activities for the next 3 years. With the support of the Foundation and our workgroup partners, we'll surely have a lot more progress to report in the future.



A new manure storage facility was installed at the Davis Farm in Berks County.



WATERSHED LAND PROTECTION COLLABORATIVE

The Watershed Land Collaborative was created to protect the integrity of water supplies for future generations through strategic land conservation. In order to achieve this, the Collaborative created a method to: 1) identify the land most important for protecting water quality and 2) develop a grant program to expedite the process of land acquisition for groups involved in direct conservation.

The Natural Lands Trust, Philadelphia Water Department, and the Delaware Valley Regional Planning Commission created a prioritization process to show where protection was most urgent by identifying the most important land in areas most likely to be developed. Last year, the group offered information and assistance to communities located within the 20 municipalities identified by the prioritization process as having the greatest amount of high priority land for water protection. This year, Collaborative members were asked to follow up with communities that received correspondence. Also this year, Partnership for the Delaware Estuary launched an online interactive mapping interface that allows viewers to zoom into the mapping prioritization tool in real time.

The land transaction assistance grant program, developed to expedite priority land acquisition, has been consistently successful since its creation three years ago. This year, 4 projects were funded, protecting over 300 acres of priority land. Since the inception of the program, 8 land transaction grants have been awarded to protect a total of 986 acres of high value land.

Next the Watershed Land Collaborative will focus on more direct outreach and action. Fortunately, a new opportunity has presented itself through the William Penn Foundation "cluster" initiative. The Foundation, partnering with the Academy of Natural Sciences, the Open Space Institute, and the National Fish and Wildlife Foundation, designated areas in the Delaware River Watershed that were most valuable for protecting water quality. Not surprisingly, two of its identified clusters fall within the Collaborative's priority lands designations: the **Schuylkill Highlands** and the **Middle Schuylkill**. As a result, future Collaborative activities will be intertwined with cluster work in the coming year.

Stay tuned for exciting new developments and the next round of land transaction assistance funding!

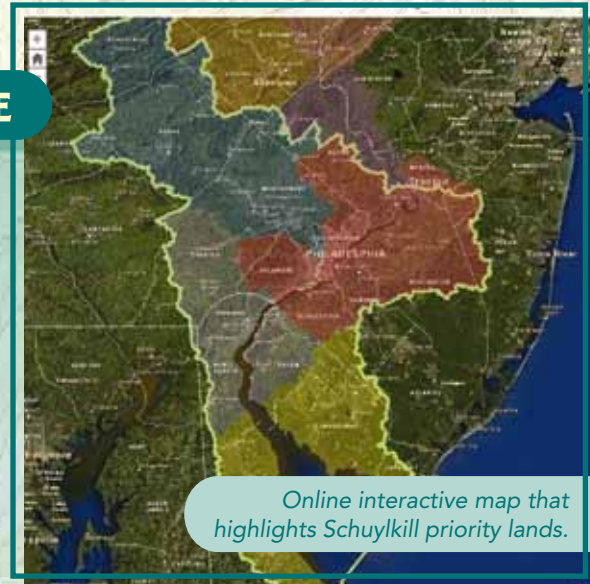
EDUCATION AND OUTREACH WORKGROUP

SAN's Education and Outreach (E&O) workgroup worked on some great projects in 2013. Sharing educational resources and programs was big part of their work. A pharmaceutical take-back program, piloted in Philadelphia, was expanded upstream to Norristown with plans to include Reading next year. Also the Clean Water Partners program, which helps teach retail business owners how to prevent nonpoint source pollution runoff through Best Management Practices (BMPs) and good housekeeping practices, was re-launched. The Clean Water Partners guidebook was in high demand by SAN partners and had to be reprinted after just a few months! A new guidebook for farmers that explains why stormwater BMPs are good for the farm and the community is in progress. Look for it this spring!

For the second year, the E&O workgroup hosted the Schuylkill Shots Photo Competition. Over 170 entries were submitted for 3 different categories: Wild and Scenic, Fun on the Schuylkill and Tip Top Tap. These photos will be used to help promote the amazing resource values of the Schuylkill. Additionally, a new storm drain art contest was launched for students in

the Schuylkill. Students will design art to help educate people that only rain should go down a storm drain. Winning students will have their artwork made into street art for a storm drain in their community.

Hands-on activities were also offered this year. This summer, over 30 SAN members convened at Green Valleys Association to learn how to find freshwater mussels that filter water in our local streams. SAN members who encounter mussels while working in the field can now report back to scientists at the Partnership for the Delaware Estuary, contributing valuable data to a basin-wide shellfish restoration effort. The SAN also offered volunteers another opportunity to help clean up the watershed. During the 2013 Schuylkill Scrub, thousands of volunteers took to the streams, trails, and roadways to help keep the Schuylkill clean.



Online interactive map that highlights Schuylkill priority lands.



A rare species of freshwater mussel found in the Schuylkill Watershed.



Volunteers help clean up the river at the "Schuylkill Scrub" event.

PATHOGEN/COMPLIANCE WORKGROUP

The SAN Pathogen/Compliance workgroup focuses on compliance issues and prevention programs. In 2013, continued development and education about the Early Warning System was a high priority. The objectives of the system are to: provide notification protocols in the event of emergency situations; protect the water supply for millions of people; establish a secure forum for communication and information sharing; and provide analytical tools for event response. To help achieve these objectives, a training program was held on March 6, 2013 at the Penn State Berks County Campus. Approximately 25 state, federal, local government partners attended this training in addition to several water suppliers. There are currently about 279 users in the system representing 50 organizations. Since its inception, there have been over 250 water quality events reported to the system including: 67 sewage discharges; 51 oil spills; 30 chemical spills; 31 flood warnings; and 71 general notices. Another major educational accomplishment was the formation of the Berks County Water and Sewer Association thanks to partners in Berks County, especially Chip Bilger of the Western Berks Water Authority and the Berks County Planning Commission. This Association held its first annual meeting on July 31, 2013 at Albright College. About 100 water and sewer personnel attended this event. The meeting focused on source water protection, stormwater issues, good agricultural practices, and information about the SAN. This Association will continue to have educational/training programs. Also, the Pathogen/Compliance workgroup will continue to work with the City of Philadelphia on a Watershed Control Plan that will track wastewater treatment plant upgrades, new facilities, and water quality improvement projects.



A fistfull of iron-laden mud.



The AMD Workgroup tours the Mary D Borehole treatment system.

ABANDONED MINE DRAINAGE WORKGROUP

This past year, members of the Abandoned Mine Drainage (AMD) workgroup worked hard to oversee the investment of more than \$2 million in the watershed to restore streams impacted by abandoned mine drainage. In June, the Schuylkill Headwaters Association finished work on the Mary D Borehole treatment system, a project started in 2005. The treatment system is in the village of Mary D, at the former baseball field, which had to be relocated before construction could begin. With the support of many different funders, a new recreational complex was built on a piece of property donated by Blaschak Coal Company. At the new treatment system, water runs through limestone to increase the pH of the water and allow iron to precipitate out. The water is then run through a flushing pond to capture any remaining iron or sediment.

This past year, the AMD workgroup also completed several other AMD projects, including an upgrade to the Bell Colliery treatment system, which has been in operation for over 10 years. The workgroup continues to do a lot of work in the Pine Knot mine pool area, completing projects and investigating ways to prevent clean water from entering the mine and becoming polluted. Projects include: restoring sections of the West Branch of the Schuylkill River; working with the Army Corps of Engineers on a feasibility study of the Pine Knot watershed; and sealing up crop falls and collapsing mine workings near Pottsville. The workgroup also completed a conservation plan for Bear Creek, installed rain gardens and trails at the Silver Creek Treatment System, and planted mine-scarred land with trees. These are just a few examples of the amazing work this group has been doing in the watershed.



Iron settles out of a flushing pond before it enters Silver Creek.

Kevin Munley Award Receptient:
"Saucony Creek Brewing Company".



SAN Community
Partner Awards.

Saucony Creek Brewing
Company Partnership.



SAN 10 Year Celebration,
May 9, 2013.



2013 Governor's Award for
Environmental Excellence.



2013 SAN Agriculture
Project Tour.



SAN 10 Year
Progress Report.



2013 SAN
AMD Project Tour.



2013 SAN Annual Workshop.



10 YEAR CELEBRATION

This past year the SAN celebrated 10 years of protecting Schuylkill Waters. Special events, project tours and celebrations helped us to mark this milestone. We would like to thank all of you for helping to make this possible and sharing this accomplishment with us.

The Schuylkill River: 2014 Pennsylvania River of the Year!



Photo by Mamun Zaman

SCHUYLKILL RIVER RESTORATION FUND

In 2013, more than \$350,000 in grants was distributed through the Schuylkill River Restoration Fund to improve water quality in the Schuylkill River and its tributaries. Funding for these projects were provided by Exelon's Limerick Generating Station, the Philadelphia Water Department and Aqua PA. Through this program, 7 projects will help address stormwater runoff, abandoned mine drainage and agricultural pollution, which are important priorities for the SAN. There were also 3 land transaction grants awarded that will help to permanently protect important land in the watershed. **\$12,000 in land protection grants** were awarded to **Natural Lands Trust** and the **Wissahickon Valley Watershed Association** to protect over 325 acres.

2013 Grant Awards:

- **Berks County Conservancy: Schroeder & Weaver Farm Projects, \$99,750**
Objective: BMPs on two Berks County dairy farms in the Maiden Creek and Schuylkill River watersheds.
- **Berks County Conservancy: Leid Farm Project, \$68,250**
Objective: Construct a six-month manure storage facility, a heifer barn, barnyard stormwater controls, and animal walkways.
- **Montgomery County Conservation District: East Norriton Middle School – Phase 2, \$20,000**
Objective: Install a 4,500 sq. ft. rain garden, naturalize the existing stormwater basin and install two cisterns for stormwater capture and reuse.
- **Partnership for the Delaware Estuary: Schuylkill Action Students Project, \$20,821**
Objective: Provide support to 3 schools in the Tulpehocken and Perkiomen watersheds to implement stormwater BMPs on their school campuses.
- **Schuylkill Headwaters Association: Mary D Borehole Project, \$63,000**
Objective: Purchase and install 2,100 tons of high calcium limestone to renew treatment capacity at the Mary D Abandoned Mine Drainage facility.
- **Valley Forge Trout Unlimited: Crabby Creek Infiltration Trench, \$25,000**
Objective: Reduce stormwater pollution to Crabby Creek by installing an infiltration trench along Hilltop Lane.
- **Roxborough Development Corp.: Leverington Parklet Project, \$50,000**
Objective: Install stormwater BMPs to remediate runoff and create a pocket-park from a vacant asphalt lot.

Over the past eight years, the fund has contributed over \$2 million to more than 30 projects that have all effectively reduced the amount of pollutants entering the river and the tributaries of the Schuylkill Watershed. This fund allows members of the SAN to direct investments to the most important projects for creating a clean and healthy river. To learn how your business can become a partner in this effort, please contact Tim Fenchel of the Schuylkill River Heritage area at:

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www.state.nj.us/drbc



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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www.epa.gov/region03

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