

SAN Connections

Spring Edition 2023



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Pathogens & Point Source

EWS, a success story during the recent spill on the Delaware

By Alison Aminto, PWD and Pathogens and Point Source Co-chair

Water utilities and emergency responders were able to react swiftly to the chemical spill that happened on a tributary of the Delaware River on March 23, 2023 because they had notifications from the [Delaware Valley Early Warning System \(EWS\)](#), owned and operated by the Philadelphia Water Department.

While the drinking water of utilities along the Delaware River were thankfully never impacted, reporting of the event to the EWS shortly after its midnight occurrence allowed the area's water suppliers to take precautionary measures and for government entities to share updates about their evaluation of the spill and their responses.

The EWS is a monitoring and communication system which provides notification of surface water contamination events to subscribers, which are composed of: water suppliers, industrial surface water users, and partner government agencies throughout our watersheds. The EWS user base currently consists of more than **480 users from 61 water supply and government organizations operating 124 intakes.**

"The recent spill on the Delaware River serves as an excellent case study of the importance and utility of the EWS." - Alison Aminto, PWD

Events reported to the EWS trigger email notifications and spill model results to the entire user group in a matter of minutes. The EWS can estimate downstream arrival times of pollution discharges at intakes using real-time water data and tidal conditions, and allows users to see the details of pollution events, including the location, description, spill path, and risk level.



Notifications through the EWS can provide critical information to water system operators who may need to either make changes to treatment processes or even close intakes in response to a surface water contamination event and participating government agencies are also notified to assist in coordinating spill responses.

The spill tracking and enhanced communication provided by the EWS clearly demonstrated how partnerships facilitated by the SAN Pathogens workgroup, which itself has helped grow the EWS userbase, has and will continue to help utilities improve and protect their drinking water supply.

Alison Aminto, Workgroup Co-chair and Source Water Protection Program Manager with the Philadelphia Water Department says, “We are very grateful to have our SAN partners’ continued support of the EWS. The recent spill on the Delaware River serves as an excellent case study of the importance and utility of the EWS in protecting the region’s water supply.”

Next Workgroup Meeting

Hybrid

May 15th

10:30 - 12:00

Presentation by Jill –
In-person at Aqua
Offices in Bryn Mawr
followed by a lab tour

[Click here to
RSVP on Zoom](#)

[Click here to
RSVP In-person](#)

EPA Proposed PFAS Regulation

**Public Comment ends
May 30th**



Abandoned Mine Drainage

Partners gathered April 18 for a tour and hike around Silver Creek Reservoir and the Big Creek sites in Schuylkill Co. led by Alexa Smith, Schuylkill Conservation District and Erik Sildorff, Delaware Riverkeeper Network

The pH Mysteries of Big Creek

By Erik Sildorff, co-written by Kaitie Evers

The Big Creek remediation site has been undergoing limestone dosing to adjust pH levels downstream.

Erik shared that ‘The Upper Schuylkill Total Maximum Daily Load (TMDL) and Watershed Implementation Plan (WIP) identify Big Creek as among the largest untreated sources of acidity and aluminum loading.’ In 2016/17 Schuylkill CD started limestone sand amendments to the outtake below Capparell Stripping Pit. This area was “essentially fish-less and it looked like the stripping pit was the source,” Erik said.

Following dosing, the site was monitored in collaboration with the Bureau of Abandoned Mine Reclamation (BAMR). The data were somewhat inconsistent with the anticipated outcome because the pH wasn't increasing as expected and the macroinvertebrate community was not improving.



Next Workgroup Meeting

TBD - late July
10:00 - 12:00
Zoom



[Click here to check out more photos on our Flickr page](#)

In 2020-2023, grants were obtained to continue with limestone sand dosing, continue monitoring the water chemistry with HOBOT loggers, and also figure out some of the anomalies shown in the data. As testing expanded in the tributaries and channels nearby, a picture evolved showing striations of acidity “like the Broad Mountain was bleeding acidity,” says Erik.

An overlay of the geologic formations and differences in the sandstone geology offered a key piece to the puzzle. In the Pottsville Formation, the subsurface can not rebound from attenuation of acid deposition whereas the adjacent Mauch Chunk Formation offers more buffering capacity.

Erik corroborated these findings with other regional scientists, Matt Shank (PADEP) and Dr. Pete Sharpe (NPS) - who work on researching similar ‘baked out watersheds with no ability to buffer’.

The area’s hydrology also has peculiarities due to alterations from the miners of the 19-acre strip mine in the 1940s. There is a bypass channel that runs from Silver Creek on the north slope of the pit which feeds into Big Creek over a big waterfall. The perched channel to the south essentially serves as one long linear BMP of limestone dosing.

In all treated areas, the macroinvertebrates are starting to return, including year-round populations of mayflies at key restoration sites on Big Creek. Brook trout are colonizing the lower reaches of Big Creek, and project collaborators are transporting brook trout into the upper restored reaches above barrier waterfalls.

Erik asserts that the work is just beginning. There’s more to be explored in the potential for broadening limestone applications and broadening research collaborations as well. He says it’s also time to think about forest and terrestrial health too in this “adaptive management situation.”

Agriculture

National Ag Day Celebration Hosted by Berks County Department of Ag

The Berks County Department of Agricultural held a Historic Barn lecture and tour to honor National Ag Day on Tuesday, March 21.

After a morning presentation and lunch, guests visited 2 farms with several 1800s barns, and discussed their construction materials, methods, and purpose.

Ag Day is about recognizing and celebrating the contributions of agriculture to our everyday lives. It's a day to observe and honor the abundance provided by agriculture throughout history and it's evolution along the way to provide almost everything we eat, use, and wear on a daily basis. Ag Day is celebrated every March during National Ag Week. The actual dates vary from year to year.

Berks County Department of Agriculture has preserved an additional **440** acres thus far in 2023, marking a grand total of **809** farms with **77,743.8** acres in preservation across the County.



Photos (above and below) of the Kauffman Farm in Oley Township, one of several stops on the 2023 Berks County National Ag Day tour. The barn dates from the 1800s.





The SRRF Pine Creek Streambank Stabilization project is complete. Pictures above and right.



BCCD Cover Crop Workshop Recap

By Briana Johanson, BCCD

On April 14, the Berks County Conservation District hosted a workshop for farmers in Berks County about the benefits of implementing cover crops and manure injection practices. The workshop was held at Adam Light’s automated dairy farm in Frystown, PA with an afternoon session, and free lunch, on a neighboring crop field. Attendees had the opportunity to examine this aerial-seeded cover crop field and witness a live manure injection demonstration. Manure Hauler/Broker and Pesticide Applicator CECs were offered to all participants.

Local agencies and businesses presented the various cost-share programs available to producers in Berks County and ways in which establishing conservation practices can help save on fertilizer costs. The Conservation District advertised new assistance programs including the MEB program, which offers cost-share rates to farmers in the Chesapeake Bay to plant cover crops and implement nutrient management related practices.

Next Workgroup Meeting

July 12th
10:00 - 12:00
hybrid

In-person followed by the Berks County Fair.

[Click here to RSVP in-person](#)

[Click here to RSVP Zoom](#)



Stormwater

Tree Vitalize Project Tour with Wissahickon Trails

By Meghan Rogalus, PDE

On April 3rd, SAN's Stormwater Work group joined Wissahickon Trails' Erin Landis and Gail Farmer for a tour of green stormwater infrastructure projects at Roychester Park, Overlook Elementary and the adjacent neighborhood in Abington Township.

This area drains to the Sandy Run, a headwaters tributary to the Wissahickon Creek and a focus area of the Delaware River Watershed Initiative (DRWI). Flooding events here are dramatic and have been deadly to residents in the past. Wissahickon Trails has been instrumental in remediating the storage and building community awareness and engagement.

After the tour Meghan, Chesa, Kristen, and Kaitie, with PDE and Amanda Obosnenko, with Aqua installed 15 storm drain medallions.



Save the Date

Next Workgroup Meeting

July 27th

Tour of SBN Excellence
in GSI Finalist project
More info to come

Stormdrain Marking

Kits are available and FREE within the City of Philadelphia limits and are available at reduced cost for outside the city.

If you are interested in a storm drain marking kit to place in your community, please reach out to Kaitie. kevers@delawareestuary.org



Engagement & Stewardship

Community of Communicators

Tues, May 9th
10am - 12pm Est.
Zoom



Connect with other communicators in the watershed.

Meet the faces behind the page.

Share resources and challenges.

Find common goals.

Presentation by Resource Media

Communicating science topics to general audiences

[Click here to RSVP on Zoom](#)

Save the Date

TEACHER
Workshop

Tues. Aug 1st 8:30 - 3:30
at Green Lane Reservoir



Schuylkill Scrub: Mar 1 - May 31

CleanSweep App Update

The Schuylkill CleanSweep app is currently under construction! Stay tuned for updates. For now, please register your cleanups at keppabeautiful.org

2023 Scrub and Pub

On March 31, SAN partnered with Upper Merion Township, Conshohocken Brewing, Frosty Falls, Schuylkill River Greenways, Aqua, and EPA. Sixty volunteers came out and picked up 1000lbs of trash along with 6 tires!



[Click here to see more photos](#)

Schuylkill Sojourn Scholarships



Join the Sojourn with a friend through SAN's

Diversity Scholarship

bit.ly/2023DiversityApp



Apply to be the 2023

Sojourn Steward

Submit your project proposal now!

bit.ly/2023Steward

