



RAIN MATTERS

News and Views for RAIN Members

A Quarterly Newsletter

ISSUE No. 5 - Summer 2016

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RAIN *MATTERS* is published quarterly for member organizations.

RAIN's Program Manager is Bryce Aaronson, bryce.rainmatters@gmail.com

RAIN *MATTERS* Editor & Writer is Lynda Ginsparg, lyndaginsparg@yahoo.com

RAIN MEMBERS GEARING UP FOR SECOND ANNUAL SOURCE WATER PROTECTION CONFERENCE

CONFERENCE WILL BUILD ON SOURCE WATER PROTECTION MESSAGE

RAIN is excited to announce its second annual Source Water Protection Conference. This year's conference will be held on September 13 from 8 am - 3:30 pm at the Carnegie Science Center in Pittsburgh.

"The goal of this year's conference is to push for further collaboration amongst the organizations protecting our region's waterways. While presenters and panelists are still being finalized, the agenda will focus on discussing key issues impacting our region, with emphasis placed on generating partnerships that will work together to mitigate risks and act more proactively," said RAIN's Program Manager Bryce Aaronson.

PANEL DISCUSSION TO FOCUS ON HABS

One highlight of this year's conference will be a panel discussion on HABS, featuring Rose Reilly from the U.S. Army Corps of Engineers; water quality expert Dr. Stanley States; and RAIN Chair Ron Bargiel. Panelists will examine harmful algal blooms, what they mean and what can be done to stem the spread of this contaminant.

CONTINUING COLLABORATION THROUGHOUT THE PROTECTION ZONE

This year's conference will also see the launch of the successful Ohio River Regional Source Water Protection Partnership. The



new Partnership continues to successfully move forward. RAIN, in coordination with the five water systems, with support from the PA DEP and SSM group, systematically prioritizes potential sources of contamination (PSOCs) and delineates zones of concern. This is a participatory process that relies on the input from the water systems and open communication with other key stakeholders and users of the river. (Read more about this new Partnership on page 3.)

See box on page 4 for Conference sponsorship information.

Member Spotlight: Funding is Key Ingredient for RAIN, says Mark Stoner



Mark Stoner, head of RAIN's Equipment Maintenance Team

Ask Mark Stoner about his top three priorities for RAIN and he is likely to say, Funding, Funding and Funding. There's a pattern here, but all priorities, and the future success of the monitoring network, lead back to this source.

In reality, funding *is* at the top of Stoner's list, followed closely by two areas that are at the heart of the work being done by RAIN members: collecting data on reliable equipment and ensuring that communications are fully up and running so that the data can be used effectively. And as Stoner is quick to point out, you can't have either one of these without - you guessed it - funding.

As the first chair of the River Alert Information Network, Stoner knows first-hand the importance that sustained funding plays in the success of the work at hand. But knowing what you need, and being able to obtain it, are sometimes at odds with each other.

Stoner took the helm of the fledgling RAIN organization almost by default. He had been working with RAIN'S predecessor, the Allegheny/Monongahela Early Warning Detection System, known by the awkward acronym AMEWDS, as the representative from Pittsburgh Water and Sewer Authority. As work progressed and the organization grew, Stoner was asked to stay on, due to his familiarity with the work being done by the group. It was due to his experience that he naturally fell into the chairmanship of the group that became RAIN. (He would serve as chair for the next five years before relinquishing the position and moving on to the Municipal Authority of Westmoreland County.)

RAIN's early focus was to look at dissolved solids in the Monongahela River, where most of the fracking water was being deposited, Stoner said. The presence of these byproducts triggered the need for a deeper look at what was in the river water.

"What prompted another look was that sewage treatment plants were being allowed to take the fracking water and treat it, since it was not well-known what was in the water," Stoner explained. "High total dissolved solids were in there, then this was dumped into the river and drinking water plants were picking up this water. Drinking water plants are not equipped to treat these dissolved solids, so the solids were leaching through into the drinking water."

This alarming fact was the impetus behind the original RAIN network. Funding from a grant through the state's Department of Environmental Protection beginning in 2008 allowed RAIN to begin monitoring water status on an on-going basis. Today, RAIN's monitoring equipment looks at pH and conductivity in the water, as well as temperature, all indicators of the health of the water.

Under Stoner's chairmanship, RAIN's website was developed to share information gathered from the water monitoring; in addition, members began to look at source water protection planning as well. Stoner modestly admits that he had a lot to do with creating the RAIN website and he was heavily involved with the real-time monitoring data that's currently on the site.

"During my chairmanship of RAIN it was the growing years, where we started to break free. We had a lot of growing pains...large funding issue, laws changed (which affected funding) so we had to keep looking for our own funding with cutbacks from DEP," Stoner said.

Though it has been a few years since he stepped down from his duties as RAIN's chair, Stoner said his top priorities remain getting communications up and running for all of the sites, and setting up and maintaining reliable monitoring equipment.

"Data is the key to something like this," he said. "The backbone of RAIN is our ability to get the data off of the rivers and be able to use it for early warning detection."

"My priority is to keep (the equipment) up and running and keep it communicating. There is a lot of equipment (we're) not getting information from because the communications piece that communicates data to the website is not functioning, so it creates a stop in the flow of the system," Stoner said. As head of RAIN's Equipment Maintenance Team it is his job to keep the equipment in working condition.

Early RAIN communications tools included laptops that were designed to transmit the data. But as the equipment became old it did not function correctly. There were connection issues as well as frequent problems with poor cellular service to transmit the data, resulting in a gap in the flow of information, Stoner said.

Currently, RAIN's six monitoring sites have updated communications devices that feed data constantly to 'little black boxes' similar to modems, Stoner explained. The system provides reliable transmission from the HACH SC1000 controllers to the RAIN servers. The controllers can handle multiple sensors, allowing RAIN to expand its monitoring capability, through probes and testing equipment in the rivers. While this state-of-the-art equipment is just what RAIN needs, it comes at a price: the cost of a secure gateway or tunnel, from the SC1000 to the network's server, can range from \$4,000-\$8,000 each. All RAIN sites with monitoring equipment have the SC1000 installed, but not all sites have the necessary communications device, so while data is being gathered, there is no way to communicate that data.

For Stoner, armed with a bachelor's degree in chemistry from the University of Pittsburgh and a lot of technical expertise, securing reliable funding remains the goal. He summed up his - and RAIN's - philosophy this way:

"It's all about source water protection, that's what RAIN is focused on, how clean can we get our source so we can better treat it. We're trying to mitigate and stop spills, intentional discharges as well as the yearly algae blooms...anything we can do to warn our stakeholders what is coming into their intake so they can treat the water so it's safe to drink."

Mark Stoner is Water Quality Superintendent at the Municipal Authority of Westmoreland County. He started his tenure at MAWC in December 2012 as the water quality supervisor at the Beaver Run plant. A longer version of our conversation with Mark is available in the People section under Resources and Media on the RAIN website, www.rainmatters.org

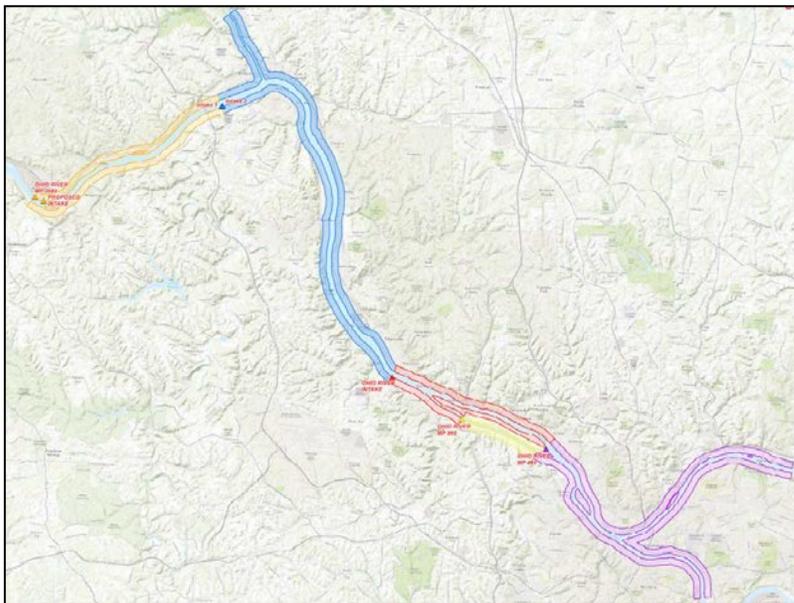
RAIN Drops- News notes and upcoming events for RAIN members

Ohio River Regional: The Making of a SWP Partnership

RAIN's newest Source Water Protection Partnership, known as the Ohio River Regional Partnership, was formalized during a kick-off meeting on May 18, hosted by the Municipal Authority of the Township of Robinson. Forming a source water protection partnership is a measured and deliberate process; the new partnership was formed in 2015 with five water utilities: West View Water Authority, the Municipal Authority of the Township of Robinson, Moon Township Municipal Authority, Center Township Water Authority and the Borough of Midland Water Authority. Joining forces with the water utilities were RAIN, the Allegheny County Health Department, PA Rural Water Association and the state's Department of Environmental Protection.

The kick-off meeting was designed as an effort to bring in additional key stakeholders. A Who's Who of water industry professionals attended the May meeting as a show of support for this new collaborative. In attendance were representatives from the U.S. Army Corps of Engineers, Port of Pittsburgh Commission, Beaver County Planning Commission, Three Rivers Wet Weather, ALCOSAN, Rochester Area Joint Sewer Authority, Buckeye Pipeline, Ashland Inc., Interstate Chemical, Carnegie Mellon University, Allegheny County Conservation District, Allegheny Watershed Alliance, Lennon, Smith & Souleret Engineering, Inc., Pittsburgh Water & Sewer Authority, Creswell Heights Joint Authority, Aliquippa Municipal Water Authority, Coraopolis Water and Sewer Authority, Sewickley Borough Water Authority, Monaca Municipal Water Works and Beaver Borough Municipal Authority.

The new group is in the middle of a five-step process to develop its SWP Plan. They have already completed the first two steps: formation of the steering committee and outlining source water delineation; they are currently in the midst of recording the potential sources of contamination inventory. The partnership must still tackle outlining its SWP management strategies and contingency planning. Highlighting the value of members of this new partnership, West View Water Authority currently houses monitoring equipment that records for the RAIN network, though it does not have data communications equipment at this time. Center Township Water Authority will have RAIN monitoring equipment once its intake and water treatment plant are completed and permitted, estimated to be in place in the next several months.



Color is Key in this bird's-eye view of the new Ohio Regional Partnership SWP Project:

Follow along the color-coded path to get an idea of the location of the intakes along the waterways of RAIN's newest source water protection partnership. The Point at Pittsburgh, in purple, begins the journey. The river to the north is the Allegheny and the river to the south is the Monongahela. Flowing northwest is the Ohio River.

The first intake is West View, shown at the end of the purple line. West View is at the upstream end of Neville Island. The back channel (left descending bank) of Neville Island leads to Robinson Township (end of yellow.) The end of red is Moon Township. Following the blue is the Beaver River, heading north at the big bend in the Ohio. Blue ends at the Center Township intake. The light tan leads to Midland Borough. (Map courtesy of SSM Group.)

Upcoming Events of Note

RAIN's Second Annual Source Water Protection Conference

September 13, from 8:00 am - 3:30 pm at the Carnegie Science Center in Pittsburgh. See page 1 for details.



EPA Webinar

Registration is open for the EPA's Safe and Sustainable Water Resources Research Program webinar on Contaminants of Emerging Concern (CECs) in Source and Treated Drinking Water. The webinar is scheduled for **Wednesday, June 29** from 2-3 p.m. Register online at <https://attendee.gotowebinar.com/register/8481033837663990273>

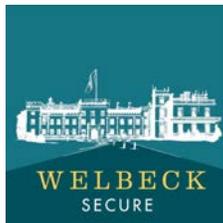
The featured speaker will be Dr. Susan T. Glassmeyer, research chemist at EPA/ORD's National Exposure Research Laboratory. Her research is focused on chemical and microbial CECs in the water cycle. The presentation will focus on the impact of CECs and their implications for aquatic life and human health.

Cyprych is August Guest Speaker at Cafe Sci

RAIN's own Gina Cyprych, Acting Chief Water Quality Director for Pittsburgh Water and Sewer Authority, will be the featured speaker at the Carnegie Science Center's popular Cafe Scientifique on **Monday, August 1**. Join Gina as she discusses "Local Water Quality," during her presentation on protecting our region's drinking water. Doors open at 6 p.m. and the program runs from 7-9 p.m. Bring your questions for Gina and share ideas about how to preserve our precious water resources. Admission is free; parking is \$5 and food is available for purchase. Visit www.carnegiesciencecenter.org/programs/adult-programs-cafe-sci/ for details.

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Confluence of Rivers Provides Picturesque View

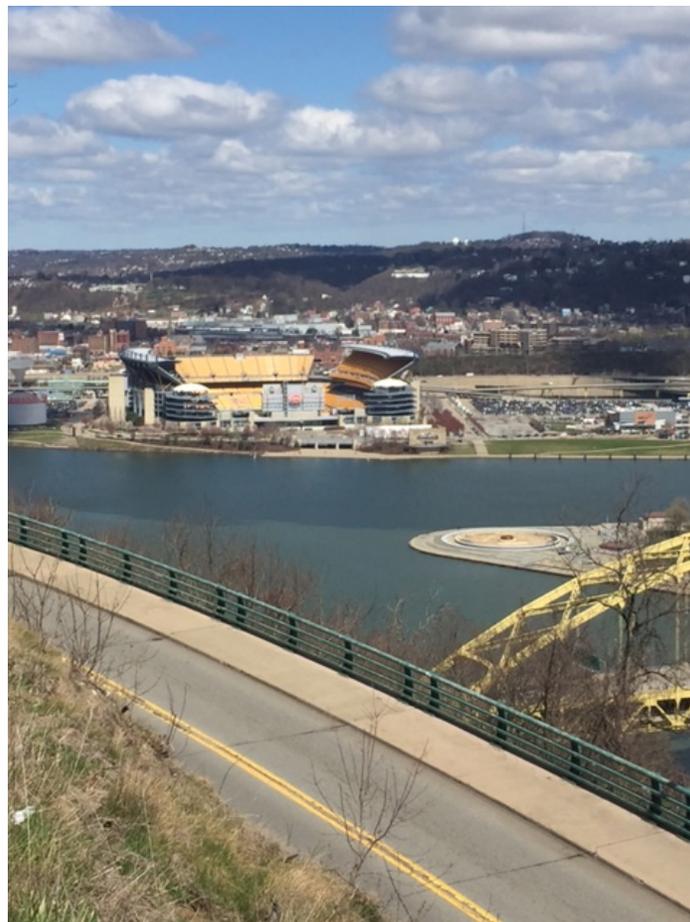


Photo by Bryce Aaronson

The stark difference in color delineates the confluence of the Allegheny and Monongahela Rivers as they converge to become the Ohio River at Point State Park in Pittsburgh. The Allegheny, top, and the Monongahela, bottom, each have distinct characteristics, attributed to their varying sources, journeys and urban uses. Heinz Field, home of the Pittsburgh Steelers, provides a picturesque backdrop on a clear day in March.

BECOME A SPONSOR!

RAIN is looking for a few good sponsors! If you would like to become a sponsor of this year's Source Water Protection Conference, please contact RAIN's Program Manager, Bryce Aaronson, bryce.rainmatters@gmail.com for details on the benefits of sponsorship and how your company can participate.

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- Bryce Aaronson, RAIN Program Manager

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