R I V E R A L E R T I N F O R M A T I O N N E T W O R K

RAIN MATTERS

River Alert Information Network

News and Views for RAIN Members

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A TRIP DOWN THE MIGHTY MON, AND UP THE ALLEGHENY, TOO

RAIN Staff and Members Take a Trip Along the Big Rivers to Give Monitoring Equipment a Check-Up

Late winter days provided an opportunity for RAIN Project Coordinator Bryce Aaronson and DEP Liaison Tom McCaffrey to visit sites along the Big Rivers to check on RAIN monitoring equipment to see how it is being used and maintained.

On a chilly day in February, Bryce and Tom were joined by Amy Miller from the Allegheny County Conservation District as they visited locales along the Monongahela River. The group toured facilities at the Dunkard Valley Joint Municipal Authority, Southwestern PA Water Authority, Washington Township Municipal Authority, MAWC- McKeesport (which has its intake on the Youghiogheny River), and stopped to visit the PA-American Hays Mine.

The two-day Allegheny trip took place in early March. Day one included visits to West View Water Authority, Brackenridge Borough Water Authority, Oakmont Water Authority and a meeting at Lennon, Smith, Souleret Engineering, Inc., contractors working to build a new facility for Center Township. Bryce and Tom were joined on day two by Chris Berkey, Tom's counterpart for DEP in the Northwest Region, for visits to PA American Newcastle, Greenville Water Authority and Aqua PA Emlenton.

The purpose of the trips was to assess the quality of the equipment and to note how prepared the water systems were to join the network via Welbeck Secure Solutions equipment.

"The overall impression of the trip was that RAIN was enthusiastic to see the level of care and maintenance the equipment has received from the host members," Bryce said.

View of the Monongahela River next to Dunkard Valley's water treatment facility. Gray's Landing Lock and Dam can be seen in the distance.

"We visited the water facilities primarily to check up on the existing early warning monitoring equipment that has been in place. Several years ago, RAIN purchased laptops that helped to report the surface water data to the RAIN network. These computers have now become outdated and RAIN is soon looking to replace them with updated equipment (Welbeck boxes) that, while being slightly more costly, will provide far more reliable and secure means of transporting the data," Bryce said.

Story and photos continued on page 4.

Member Spotlight: Ron Bargiel Shares His Vision for RAIN

As the new chair of the River Alert Information Network, Ron Bargiel has his eye on one thing: securing more funding for the purchase of monitoring equipment to allow RAIN to continue its mission to monitor the waters in western Pennsylvania.

"RAIN is unique; it's on a shoestring budget and sustaining funding is more difficult. The more eyes on your source, the less chance contamination can take hold," he said in a recent interview.

Bargiel has been an integral part of RAIN from the beginning, when the fledgling group was known as the Monongahela River Communication Network, a collaboration that he began with Phil Ranieri (formerly with the DEP) in 1999. Bargiel traced the evolution of the organization, which started with just a few members who agreed to be part of a 'calling tree' to create a chain of communication for water systems along the rivers. Some equipment was purchased to monitor the water, but in the early days, Bargiel said, the monitors only tested for PH levels, temperature and conductivity. Those early probes, he said, provided basic information and required very little maintenance. This groundwork led to the group that evolved into RAIN in 2008.

"Getting background information is important to set the baseline data," he said. "It's important to have the monitors out in the water for awhile, perhaps even some years; we need to know what's normal and what's not in a certain body of water. We can't set alarms until the particular analyzing probes have been there for at least a year, in order to set alarms correctly. Baseline data is different for each body of water, which complicates matters; water chemistry is different, industry upstream (can affect the) whole watershed. Everyone has their own sets of problems," Bargiel said.

Facilities have also evolved since the early days, and funding from water groups like Pennsylvania American Water allow for the purchase of expensive monitoring panels that can accommodate additional testing probes to record values of variables such as ammonia; they also can include a UV254 analyzer to look at the total organic carbon (TOC) in the raw water. The 'Oil in Water Probe' is the primary indicator of contaminants from diesel or petroleum spills.

Bargiel said the oil and water probe may be "exactly what we need to give us time to detect these pollutants at low levels." He said HACH has an oil-in-water probe that can detect diesel and petroleum spills that is more efficient than TOC. He tested this himself at the Hays Mine location, and the probe was able to detect diesel fuel at low sub part per million levels.

"Probes are getting more sophisticated, they now have the ability to detect things continuously online, so we don't have to bring (samples) to the lab and run the analysis in the lab. It's instantaneous and continuous. This is a great way to be able to monitor 24/7, 365, they never go on vacation and they never need any sleep either!" Bargiel said.

In the past, a chemist who worked for the water authority, or water operators who received some training to analyze basic information, went to take the water sample, then took the sample to the lab for analysis. Today, probes give the information instantly. If there had been probes like this early on, Bargiel said, some of the problems could have been indicated more quickly. *(These new probes do require some maintenance, Bargiel cautioned, because they are too sophisticated to be repaired on their own. He said maintenance contracts are a good idea and recommended.)*

Bargiel participated as a panelist to discuss how "Hydrometrics Show the Wellbeing of Water" during RAIN's first annual conference last September.

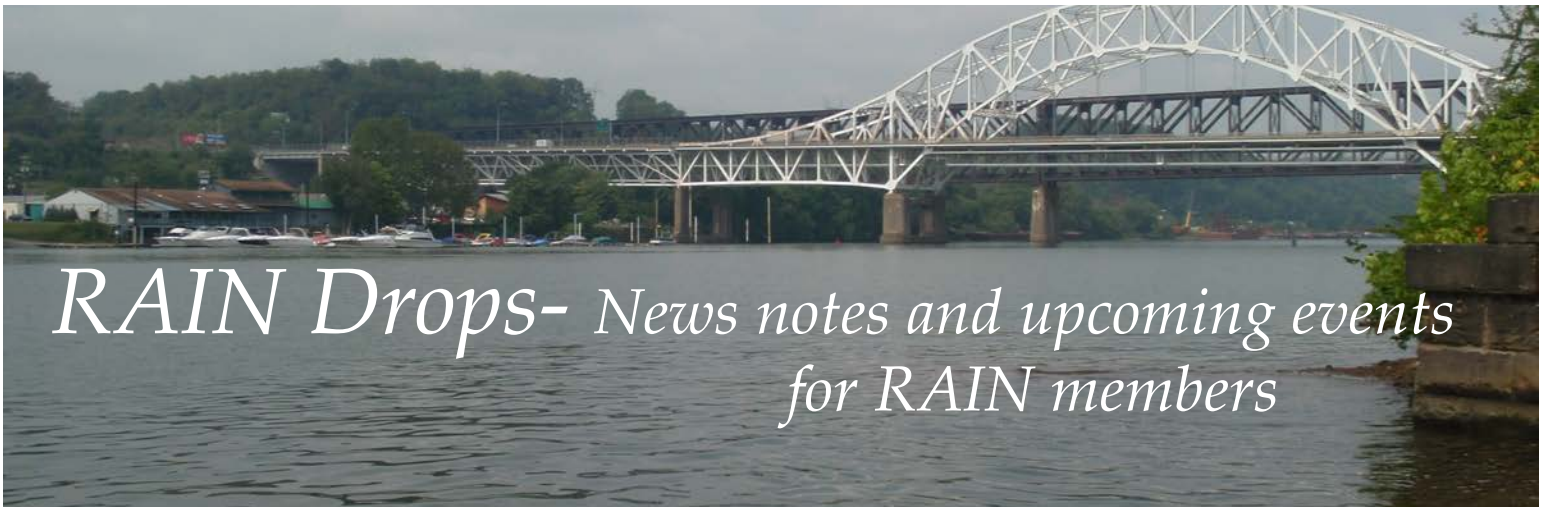
Bargiel's philosophy is simple: "I want to try to get as many monitors out there as possible, to be the eyes and ears for watershed protection for the public. That's what RAIN's mission is. Eventually we want get these monitors on our website so we can use the eyes and ears of everyone here to help monitor. If you put the information on a public website, anyone can help monitor; if there's a public website, it is as deterrent to anyone who would think about dumping pollutants into the watershed. What is the best deterrent? It's having those monitors out there and having people monitor the information daily."

In order to meet Bargiel's goal of installing more monitoring panels, it will take funding; the Hach 1000 monitors are about $30,000 each. Some of the larger water systems, such as PA American and the Municipal Authority of Westmoreland County, are buying them. "We'll have to find some help for the smaller systems, that's why RAIN is always looking for funding," he said. "It's easy to get money to start a project, but not a lot of money is out there to sustain a project. That's where we have to get better, it's tough," Bargiel added. He said a stream of funding that will last 10-15 years is ideal, to allow for effective transmission of the data.

Another problem, Bargiel said, is getting systems with the monitors connected to the RAIN website in order to display the data being gathered. Currently, only five systems with monitors are connected to the website. The equipment is monitoring the water, but the data is not being transmitted to the website. Additional funding is needed to allow the technology, currently being provided by Welbeck Secure Solutions, to gather the information from the monitors, upload it to the 'cloud' and then send it to the RAIN website. The interfaces can be costly, Bargiel said, and the expense puts added stress on RAIN's limited budget. But he said the capability is reliable and important to the transmission of the data.

"My vision, long term, is to get more sites on the website, and more Hach source water panels. That way we'll have not only more sites to be viewed, but more parameters to look at to give us more of the detail as to exactly what's going on in the water. More is better in the future,'" Bargiel concluded.

Ron Bargiel has a passion for science. His 28-year career with PA American Water includes 12 years as a water quality manager where he oversees 12 drinking water facilities and four wastewater facilities in western Pennsylvania. He and his staff of water quality supervisors, along with a lab analyst, handle compliance, reporting and sampling required by EPA and the PADEP. His group is also charged with water treatment at the facilities, where he says "we are the resident experts when it comes to treatment." The son of a plumber, Bargiel said he liked experimenting with chemistry sets as a kid. He has a degree in chemistry and says "It was a no brainer, I was good at science, it made it easy to choose a profession."



RAIN Drops- *News notes and upcoming events for RAIN members*

HABS Workshop Set for April 29

Harmful Algae Blooms (HABS) - Overview, Case Studies and Table Top Exercise will be the focus of a day-long course to bring water professionals up to speed on the danger posed to drinking water by the presence of cyanotoxins. This informative course will include some alternative water treatment techniques. Featured instructors include Dr. Stanley States, Craig Kern and Mike Snyder.

The course will be at the DEP Facility at 400 Waterfront Dr., Pittsburgh. Registration begins at 8:30 a.m., and the course runs from 9 a.m. - 3:30 p.m. Five (5) DEP contact hours will be given. The fee is $75 for AWWA/WWOAP members or $90 for non-members; a reduced fee of $50 is offered for small systems serving a population of 10,000 or less. Call 412-442-4212 for registration information, or register online at http://www.paawwa.org/wp-content/uploads/2016/03/Algae-Bloom-Registration-Form-SW-District.pdf Sponsored by the PA Section AWWA.

Register Early for the American Waterworks Association Spring Meeting

Plan to head to the Pittsburgh Zoo and PPG Aquarium on May 20 for the AWWA Spring Meeting. The agenda will include a behind-the-scenes tour of the Aquarium and Water's Edge, as well as a regulatory overview of the Safe Drinking Water Program and rTCR Compliance and Assessment training sessions; attendees will receive 3 DEP-approved contact hours for this training. Due to group size limitations for the Aquarium and Water's Edge Tour, attendance is limited to the first 80 registrants. Register early! Pre-registration fee is $45 ($50 at the door.)

The agenda/registration form has been mailed to members. Make checks payable to: AWWA-SW DIST and mail to: PA-AWWA Southwest District, 560 Horning Road, Bethel Park, PA 15102. Contact Tom McCaffrey, chair for the PA-AWWA SW District Committee, at tmccaffrey@pa.gov for more information.

Newest Source Water Protection Partnership Set to Launch

With the completion of the Lower Monongahela and Lower Allegheny Regional SWP Plans and their approval by PA DEP in June 2015, RAIN now looks to develop a Regional Source Water Protection (SWP) Plan for five water systems with surface water intakes on the Ohio River that will be known as the Ohio River Regional Partnership. The systems in the partnership will include West View Water Authority, the Municipal Authority of the Township of Robinson, Center Township Water Authority and the Borough of Midland Water Authority. The initial working meetings with operators will be held in April. Operators from Moon Township Municipal Authority, which already has a source water protection plan, will be participating as an observer through the process. RAIN will work diligently to bring together a coalition of Federal, state and local government agencies, emergency responders, all PA public drinking water utilities along the Ohio River, industry and non-governmental organizations as part of a comprehensive Source Water Protection collaborative. The five systems serve a population of approximately 275,000. The project will cover 36 river miles along the Ohio, eight river miles along the Allegheny and four river miles along the Monongahela.

Congratulations to RAIN Members!

Joe Alvarez has accepted a position as Manager of Water System Operations for the Municipal Authority of the Township of Robinson.

In his new role, Joe oversees the operations of the water plant, storage facilities, and distribution system. "My new water system is rapidly growing and my Board, and the Management team that I'm a part of, are dedicated to replacing infrastructure and utilizing the latest technology to better serve our rate payers!" Joe said.

Gina Cyprych has assumed the role of Acting Director of Water Quality and Production at Pittsburgh Water and Sewer Authority. "I am excited to enter into this role for PWSA and I know that it will better enable the Authority's endeavor to ensure that source water protection efforts are being maintained and strengthened," Gina said. "In my new role at the Authority I will be in a better position to share RAIN'S vision with a more diverse array of stakeholders. RAIN is a mechanism that allows me monitor the source water entering the plant and quickly respond to any fluctuations. RAIN is also a fabulous organization with people who are interested in various aspects of water quality." *Gina is the immediate past-chair of RAIN.*

Mark Stoner, head of RAIN's Equipment Maintenance Team committee, is now the Water Quality Superintendent at the Municipal Authority of Westmoreland County.

Congratulations to Joe, Gina and Mark!

Committee Corner

Source Water Protection Committee -

The Benefits Of A Source Water Protection Plan

By Tom McCaffrey, RAIN PA-DEP Liaison

Developing a source water protection plan has numerous benefits. Some benefits are financial – for example, the reduced cost of water treatment. Other benefits are less tangible, including:

- Reduced risk to human health
- Protection of a valuable resource for current and future generations
- Increased consumer confidence in water suppliers
- Support of healthy ecosystems, recreation and other beneficial uses
- Increased knowledge of the importance of protecting your public water supply sources
- Identifying potential sources of contamination
- Identifying source water protection zones
- Developing methods and management strategies to mitigate any potential sources of contamination
- Identifying and developing priorities to protect drinking water sources

SWP Plans are under development for the following three systems:

- PAW-Kittanning, Population 6,200 - Allegheny River
- PAW-Clarion, Population 16,600 - Clarion River
- PAW-Punxsutawney, Population 8,800 - East Branch, Mahoning River

RAIN's Trip Along the Big Rivers *(continued from Page 1)*

For some sites, RAIN also purchased HACH raw water monitoring equipment.

Equipment at the McKeesport Filtration Plant, operated by the Municipal Authority of Westmoreland County.

The purpose of this round of visits was to allow RAIN to check the status of the HACH equipment and to document site readiness for the Welbeck boxes. The Welbeck boxes require reliable internet access, preferably via ethernet cable and a dedicated power source. At each site, RAIN documented the power source and ethernet/wireless capabilities. Once RAIN is able to secure greater resources these visits will provide us with a list of sites with varying priority to install equipment, Bryce said.

Photos top and at right: The Oakmont Filtration room features a unique set of gauges contained in a marble stand.

The inscription above the gauges reads 'Filter No. 7 Installed 1951.'

RAIN Board & Partners:

- Ron Bargiel, RAIN Chair, Pennsylvania American Water
- Gina Cyprych, Pittsburgh Water and Sewer Authority
- Jack Ashton, Municipal Authority of Westmoreland County
- Joe Alvarez, Municipal Authority of the Township of Robinson
- Nick Colledge, Brackenridge Water Authority
- Tom McCaffrey, RAIN Agency Partner, PA DEP Source Water Protection Section
- Gary Stokum, Treasurer, Penn's Corner Conservancy Charitable Trust
- Craig Cobb & William Toomey, RAIN Partners, West Virginia Department of Health and Human Resources
- Bryce Aaronson, RAIN Project Coordinator

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Find out more about RAIN at our website, www.rainmatters.org