

RAIN

MATTERS - Extra



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Member Spotlight Extra --

Funding is Key Ingredient to Maintaining RAIN's Success, According to Mark Stoner

by Lynda Ginsparg, RAIN MATTERS Editor

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, all 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.)

Taking a bit of a historical look back, the Allegheny/Monongahela group operated from 2003-2008 under a grant from the state of Pennsylvania that was originally given to the Ohio River Valley Sanitation Commission, or ORSANCO. This multi-state commission was organized to form an early warning detection network on the Allegheny and Monongahela rivers in the upper Ohio watershed. RAIN was actually formed by ORSANCO, Stoner explained, as an independent project that ran for one year. Under this plan, equipment was purchased and installed and a website was up and running for about six months, though some of the equipment was not functional. The funding was intended to be available for three years, but ran out after the first year.

"It wasn't the scenario that the early members had envisioned," Stoner recalled.

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Mark Stoner, RAIN's first chair, now oversees the EMTs, also known as RAIN's Equipment Maintenance Team.

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The lack of money to run the organization started a scramble to search for new funding and in 2008 RAIN was organized as its own entity, seeking to gain support from water systems and watershed groups.

RAIN's early focus was to look at dissolved solids in the Monongahela River, where most of the fracking water was being deposited. 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 these 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.

In 2014 RAIN joined forces with Penn's Corner Conservancy RC&D, which acts as its fiduciary agent. It was a perfect fit for both RAIN and Penn's Corner, a partnership between the two groups, Stoner said. This was one of RAIN's goals, to create these partnerships – the 'network' part of RAIN's name – to marry information and groups for regional use, a river basin commission of sorts.

"We want to make ourselves accessible and we want our information to be useful. We have become the 'go to' people because there was a vacuum. People were coming to us to say they need this information, (just) as RAIN has been looking to form these partnerships," Stoner said.

"That's where our strong point is. We know all of the players involved – government and regulatory agencies, the health departments, watershed groups, the Army Corps of Engineers, to name some," he said.

Through all of the partnership building RAIN has tried to maintain the monitoring equipment, but it has been an expensive endeavor and some equipment has fallen into disrepair. Still, RAIN members have persevered.

"The network still survived, we kept talking, kept trying to revamp what we had. We went down every avenue we could to make sure this great idea continued. RAIN was the phoenix rising from the ashes," 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 *continued on page 3*



Stoner took part in a panel discussion titled 'Hydrometrics Show the Wellbeing of Water' at the first annual RAIN Source Water Protection Conference in 2015.



Stoner takes a break during the 2015 Conference to talk with Cathy Magglochetti, Source Water Protection, for US EPA Region III

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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.

Data is being used by water utilities themselves, but in many cases is not being shared. Currently, there are about 17 systems in the RAIN collaborative that are not communicating with



Shake on it . . . Stoner is joined by Greg Leininger, of HACH, during a 2013 Ohio River Watershed Cruise along the Ohio river, sponsored by a host of leading companies and organizations committed to watershed preservation.

other systems. Unfortunately, this lack of communication is due to lack of funding. The cost of a secure gateway or tunnel, from 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.

"We're looking for funding for this. This has been task and goal, as far as I am concerned, and the original founders of RAIN are concerned," Stoner said. "Once we get it up and running it will be useful, people will see how useful it is and they'll start putting money into it and we'll be sustainable."

"Then we could branch out and do a lot of different projects with data that we have, such as college research and other watershed projects...it almost boggles the mind how much we should be able to do if we're able to get this data up and running," Stoner said wistfully.

For Mark 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. Grant money is ideal, he said, in order to allocate the money where it's needed most. 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."

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Stoner and current RAIN Chair Ron Bargiel, left, traveled to the Hays Mine intake facility at Pennsylvania American Water in Pittsburgh to survey for a RAIN monitor. The Monongahela River flows in the background.

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Editor's Note: Recently promoted to Water Quality Superintendent at the Municipal Authority of Westmoreland County, Mark Stoner started his tenure at MAWC in December 2012 as the water quality supervisor at the Beaver Run plant. In his current role, Stoner has responsibility for the water quality for the entire distribution system through the three plants that are under his supervision. He is charged with oversight of all of the water going out of the system, as well as all distribution systems and oversight of plant regulations at each plant. Like most water plant supervisors, Stoner is on call 24/7.

In his role as head of the Equipment Maintenance Team for RAIN, he fields concerns from members about equipment and communications issues. Stoner also assists and helps troubleshoot any problems with the network's monitoring equipment. Training will begin soon on maintenance and upkeep of the monitoring equipment and the team will visit monitoring sites to put the maintenance plans into effect. **RM**



Mark Stoner serves as the Water Quality Superintendent at the Municipal Authority of Westmoreland County.



At left, Stoner is pictured outside the MAWC offices on a picture-perfect summer day.