



NRWA Water Rally

By: Roger Noe, IRWA Deputy Director

March 2025
Newsletter

The first week of February I had the opportunity to attend my first Rural Water Rally in Washington DC. Each year the National Rural Water Association (NRWA) holds the rally in Washington DC at the Hyatt Regency on Capitol Hill. This event consists of administrative staff and board members from all states affiliated with NRWA coming together at the Hyatt Regency Hotel. We then met with all their Congressional offices and discuss our funded programs. This includes the USDA's Rural Utility Service and U.S. EPA that would directly affect and benefit the rural community water and wastewater systems. The opening session was kicked off with opening statements from our NRWA Board President Philip Combs. The keynote speakers for the event were USDA Acting Deputy Under Secretary Jacki Ponti-Lazaruk and Alaskan Senator Lisa Murkowski. Both have been great supporters of rural water. This rally was very important to get our vision and needs out to each congressman or congresswoman with the potential funding cuts that could have horrific consequences for rural water communities.

Besides Don Craig and I, we had four board members attend, which included Steve Fletcher, Kaleb Kahl, Brian Strike, and Jake Johnson. Our 2024 water taste test winner Ben Ross with Groveland Township Water District was also in attendance. IRWA was able to meet with staff and sometimes the actual congressman or congresswoman, at fourteen of the seventeen different U.S. Representatives offices for Illinois as well both U.S. Senators offices for the state. We also dropped off our yearly report "Report to Congress" for the offices that could not meet with us. The "Report to Congress" consists of our assistance that we have provides in each district and thank you letters received from systems that we assisted. Overall, we really had good meetings with all parties involved and they all pledged to support IRWA and NRWA with our funding effort for our programs to assist the rural communities in water and wastewater programs.

Our field staff should have asked for thank you letters from the system that we have assisted. These letters help

to show our representatives how important IRWA is to our member systems. The letter consists of a short paragraph of how IRWA has helped with the signature of the operator or mayor of the system. This is a way for IRWA to tell our story of what we do.

We are and will keeping pushing for systems to take the "Rural Water Pledge". It is a simple survey that will only take a few minutes to complete. This pledge shows the support to IRWA and Rural Development for rural communities. All staff members can take the pledge including the workers, operators, clerks, mayors and board members. **Please take the pledge!**

I did have a few hours to see some sites in Washington DC. I walked to the World War II Memorial, Lincoln Memorial, Korean War Veterans Memorial, and the Vietnam Veterans Memorial. Overall, it was a great experience and looking forward to the Rural Water Rally 2026.



IRWA'S MISSION STATEMENT

"Protecting and preserving the water and wastewater resources of Rural Illinois through education, representation and on-site technical assistance"



Lift Station Flow Test

By: Jeff McCready, IRWA Wastewater Technician

Do you operate a lagoon for your wastewater treatment and do not have a flow measurement device to tell you how much flow you have coming into the plant? Instead, you have a lift station that pumps to the lagoon, and you have an hour meter in the lift station that tells you how many hours your pumps run each day. At the end of the month, you take your hours from the lift station, the GPM your pumps were rated for and use these numbers for calculating your flows for your reporting. It works. The question is, do you really know what that pump is pumping per minute, especially if it's 10, 15 or more years old?

Recently a facility that relies on this method to calculate their flows for their monthly reporting had an IEPA inspection. It had been some years since the pumps in their lift station had been flow tested and the operator was using the figures from the past flow test for his monthly reporting. The operator was told that he would need to have a flow test done on the lift station on a yearly basis in the future.

After some discussion with the operator and a couple of our Circuit Riders, I decided to use one of IRWA's Portable Doppler Ultrasonic Flow Meters. We were able to hook up the transducer's to the effluent pipe in the lift station and we tested each pump 5 times. Below are the results from the test.

	<u>Pump #1</u>	<u>Pump #2</u>
<u>Test #1</u>	648 GPM	824 GPM
<u>Test #2</u>	680GPM	776 GPM
<u>Test #3</u>	680 GPM	776 GPM
<u>Test #4</u>	700 GPM	776 GPM
<u>Test #5</u>	680 GPM	744 GPM
<u>Average</u>	678 GPM	779 GPM

I would say you could use the average or the common number, 680 GPM and 776 GPM.

There are some limitations on using this flow meter such as a straight length of pipe, vertical or horizontal, with a specified number of inches from fittings, both upstream and downstream, based on the pipe diameter. Also, the pipe needs to have all paint and rust removed down to bare metal for the transducers to connect (app. 3" diameter), and pipe sizes range from 1 inch to 120 inches. If you need to run a flow test on your lift station, give us a call and we will see if we can assist you.



IRWA Support Letters Are Needed

IRWA employees are dedicated in helping the water and wastewater systems throughout the state in making onsite visits and providing technical assistance in helping to ensure your systems have safe and quality water. Please take a moment to thank any or all of the IRWA employees who have helped your system by writing an appreciation letter on your letterhead and mail to:

Illinois Rural Water Association
P.O. Box 49
Taylorville, IL 62568



Wastewater Lab Work – The Little things count!

By: **Scott Tozier, IRWA Wastewater Technician**

The more I get around Southern Illinois the more I get to see a variety of Wastewater treatment facilities and a good many perform their own tests for many parameters including BOD, TSS, Ammonia, Fecal coliform and Phosphorus. Many treatment plants choose to do their testing in house due to various reasons including getting results faster, having confidence in the results, justification for more staffing, and the list goes on.

The one thing I see in the majority of these labs is a need for more training, usually the only training they have had is the previous operators experience which may or may not have been great. Times change and knowledge increases over the years, just look at what the internet has done for knowledge transfer. Training for lab work has followed this trend as well. The thing that hasn't increased is trainers going out and helping operators improve their skills. So far mostly this year I've been asked to help train employees in over 10 different labs to help bring up to date procedures to the Wastewater labs.

A lot of the training is based around the standard tests of BOD, CBOD and TSS testing as well as Fecal coliform testing. Many labs are missing some of the quality control methods that are required by the big book that no body including myself likes to read, Standard Methods for the Examination of Water and Wastewater. If you don't have a copy in your lab trust me it is hard to read and usually is great if you have insomnia, only crazy people like me have dived into it to see what really is required of labs to do.

BOD testing:

Usually, the most frequent items that are overlooked in BOD testing is either labs aren't doing a 5 day blank or the 5 day blank is out of range and the operator doesn't know what to do about it. It sometimes boils down to one of many things but the best way to figure it out is change one thing at a time to see if it helps or not. Some of the things it can be is Quality of water used for Dilutions water, Cleanliness of bottles and jugs used to make the Dilution water. Cleaning methods vary from lab to lab but it is very hard to keep glassware used in the BOD test clean enough when they are used over and over for years with Raw sewage put into them. If you are getting over a 0.2 depletion on your 5 day blank then you need to look into the reason for it or if you don't run one you need to with each set of bottles. Failure to run this blank can cause BOD test results to be high and could cause unnecessary permit violations, something no one wants. There are plenty of other things to look into for BOD but my space is limited and we can look

deeper into BODs in another article.

TSS testing:

The TSS test is fairly simple test but can have issues as well. One of the biggest issues here as well is labs are not running a blank with their samples as well as not using a big enough sample size on Effluent to get a proper result. A blank should be run with each batch to determine a few things, if the drying and time in desiccator is right, if the Desiccator is doing its job of not allowing moisture back into the filter. A lot of Desiccators have Desiccant that is spent indicated by the purple color of it. Some labs use white material and you can't tell when the white stuff is spent. If your blank is coming up with more than plus or minus 0.5 Mg/L change then something is not right. It could be several things as well which are hard to trouble shoot in an article. The easiest is the desiccant and the seal on the lid of the desiccator, if you put new blue desiccant in there and it turns blue within days then your seal is bad or the lid needs grease on it. Sample size on Effluent is also an issue at times as well. If you aren't getting at least .0010 Grams of difference from before to after the sample is run thru then you need to increase sample size or report it with the proper detection limit. For 250 ML of sample the detection limit is < 4.0 Mg/L for 100 ML it would be < 10.0 Mg/L. I've had labs ask me how can I get a negative number for my Effluent filter, it can be several things again but usually its not using enough sample size to analyze in the mix for a cause of it.

I could go on and on about some of the testing procedure issues I've seen but there's not enough room in this magazine for all the items that could possibly give erroneous results for BOD and TSS testing, and that's just 2 of the various tests that labs perform. If you would like assistance with training for your Wastewater lab testing procedures you can call our office and they can get you in touch with the right Wastewater Technician in your region to request onsite evaluation and training for your Wastewater laboratory.





Overdue Notice: Your Source Water Protection Plan—Let's Get It Done Together!

By: Rich Adams, IRWA Source Water Protection Specialist

Greetings, rural Illinois water operators! As we roll through early 2025, I wanted to take a moment to touch base with you about an important requirement from the Illinois Environmental Protection Agency (IEPA): your Source Water Protection Plan. If you've already submitted yours, hats off to you—well done! But if you're among those who missed the deadline last July, don't sweat it just yet. There's still time to catch up, and Illinois Rural Water is here to help you every step of the way.

The IEPA set a deadline of July 2024 for all community water systems to submit their Source Water Protection Plans, a key step in safeguarding our drinking water. These plans are all about identifying potential threats to your water supply—whether it's from agricultural runoff, industrial activity, or natural hazards—and outlining practical measures to protect it. It's not just a regulatory hoop to jump through; it's a blueprint for ensuring your community has clean, safe water for the long haul, whether you're drawing from groundwater wells or surface water sources.

I get it—life as a water operator is busy, and this might have slipped through the cracks. That's where I come in. At Illinois Rural Water, we've got the tools, templates, and know-how to make this process manageable. If you're unsure how to assess your source water area or need help mapping out protection strategies, I'm ready to assist. I'd be happy to come to you, sit down together, and figure out a plan that fits your system and your community's unique needs. Practical, tailored support to get you compliant and confident.

Don't let the missed deadline weigh you down. Reach out to me at (217) 820-3207 or adams@ilrwa.org, and let's get started. Whether it's a quick phone call or an in-person visit, we're committed to helping you check this off your list. Illinois Rural Water is proud to stand with the dedicated operators keeping our rural communities strong—let's work together to protect our water, one plan at a time! Stay safe and take care.

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