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FRANK DUNMIRE
Executive Director
dunmire@ilrwa.org • 217-820-4626

DON CRAIG
Deputy Director
craig@ilrwa.org • 217-561-1061

HEATHER MCLEOD
Membership Services Assistant
ilrwahm@ilrwa.org

DENISE BURKE
Administrative/Program Assistant
ilrwadb@ilrwa.org

MARY REED
Compliance Assistance Specialist
reed@ilrwa.org • 217-561-8376

CLARK CAMERON
State Circuit Rider
cameron@ilrwa.org • 217-820-3814

DAVE SPEAGLE
Energy Efficiency Circuit Rider
speagle@ilrwa.org • 217-820-1560

EVAN JONES
Circuit Rider
jones@ilrwa.org • 217-820-5508

ROGER NOE
Circuit Rider
noe@ilrwa.org • 217-820-1564

CHUCK WOODWORTH
Circuit Rider
ilrwacw@ilrwa.org • 217-820-1569

MARC LEMRISE
Circuit Rider
lemrise@ilrwa.org • 217-820-0222

EPA Program Specialist

DAVE McMILLAN
mcmillan@ilrwa.org • 217-370-6485

STEVE VANCE
vance@ilrwa.org • 217-825-5941

SCOTT TOZIER
Wastewater Technician
tozier@ilrwa.org • 585-314-3759

JEFF MCCREADY
Wastewater Technician
mccready@ilrwa.org • 217-870-4754

RICHMOND ADAMS
Source Water Protection Specialist
adams@ilrwa.org • 217-820-2037

KENT COX
EPA WW Program Specialist
cox@ilrwa.org • 309-333-4069

JEFF TUMIATI
Apprenticeship Coordinator
tumiati@ilrwa.org • 217-820-2220

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MISSION STATEMENT

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

On the Cover:

This photo was taken by Jeff McCready, IRWA
Wastewater Technician, in McLean, Illinois.

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That Blank Look

*by Don Craig,
IRWA Deputy Executive Director*

So, the last several weeks, I have been acquiring GPS shots of the utility systems in my home town of Gibson City. The town had accepted our proposal to complete the GIS Mapping of the wastewater, storm sewer, and water utilities....Just like IRWA has done for many, many community systems across the state.

But, honestly, this article has really nothing to do with our mapping program. It has everything to do with public perception, understanding, curiosity, gossip, and well....longevity.

You see, I've been around awhile now. That is to say, most people in my home town, and nearby communities know me, and have for 'several' years...if you get my drift. (Wow, that's an old saying by a somewhat old guy!). Anyway, moving along with the story...

Since I've been out and around all over the city, taking GPS shots of utility feature points; people have been constantly staring and looking intently, as to what the 'heck' I'm doing, let alone thinking why I have been in town day after day. Many know that I have a job that takes me around the state to different locations, and have for well over 38 years now. But, most, do not really know what I do; and even if I explain it to them, they have this 'blank' look on their face.

I'm used to that part though, and even their continued belief that I work for the State of Illinois, after many years of repeating to them, that I do not. Geesh....it does get a little aggravating!

So, most around and in my hometown call me by my nickname of Bear; but some still call me Don, as well. That being said, when people that I know (including family) go by me, stop, and start asking questions about what I'm doing, I have to go into a long and convoluted explanation to try to resolve their curiosity.

That dumbfounded blank look on their face takes over at that point...

Then they will come up with several questions, such as "Bear, are you working with the City again?".... "What is GIS?".... "Why does the City need to do this?".... and on and on and on. So, needless to say, it begins to take up some of my time

needed to move along and complete the job.

But, the most consistent question or statement that I've run across in the last few weeks is "When are you going to retire?"...

I have the same answer each time, and I never alter it.

It goes like this, "You know, I've seen too many family and friends retire early or at regular retirement age...and then notice that many (not all) are like 'lost sheep', or worse yet, someone without a purpose in life.... I do not want to be like that."

I go on, "I truly love what I do, and more notably, it gives me purpose! I'm in good health, and I've 'moved up' through the years. I'm at the point where I am a 'boss', I get paid well, and I have very good benefits and perks. Not only that, I totally enjoy the job, and the people I work with in the Association; and 'take to heart' knowing that I'm a small cog in the wheel to help people in rural communities across the state."

I usually end up with "Most importantly, I have been around since the basic infancy of the Illinois Rural Water Association. As such, and after witnessing large growth through the years, I have a very deep devotion to the organization, its purpose, and our member utilities! Not only that, I feel very loyal and responsible to our staff and board...to help insure the overall stability, validity, and continued success of our association... for now, and into the future."

And, as I get done with my 'speech', and off my soapbox..... that's when the blank look reappears on their face and then they finally speak up and say "So, you're really not back working as a city employee?"

Wow.... That's when I get that blank look on my face! 💧



The Hidden Benefits of a Rate Study

*by Clark Cameron,
IRWA State Circuit Rider*

Well, after 5 years and several hundred rate studies completed, I think I am finally starting to understand how many benefits there are to providing rate studies...other than the obvious. The study itself will tell you about the amount of water loss, what the cost per gallon is for debt retirement, what the cost per gallon is for production, total revenue from your base rate and any consumption rates, and much more. The numbers on the spreadsheet are the obvious, easily seen benefits. But there is so much more that goes into a rate study than just the numbers on the page.

For the operator, the benefit is knowing that you have done a good job when the water loss is low, or getting proof that meters need changed to convince a board or council that is reluctant to spend the money on getting new meters. Also, providing some proof, that water lines may need replaced, not just repaired. Every operator wants rates sufficient to meet the operational expenses of their department, but often times struggle to get the council to see the needs until the numbers show how much water loss is costing them. As a former water operator myself, I try to be especially understanding that many things factor into water loss and rarely is it due to operator error, and I will convey that to the administrative board. Of course, there are times when operators are somewhat at fault.

The system clerk is usually the person responsible for assembling most of the information regarding rates, number of customers, and expenses. Not too difficult...you would think, but sometimes things don't go as planned. Many smaller towns are struggling to keep clerks or find one that is experienced with all that a Village or City Clerk must know. And that is a LOT! Sometimes simple billing and usage reports are hard to come by. In these instances, I am willing to try and help the clerk find the answers by whatever means are available. Some of those may be to contact the software provider or billing system manager and get step by step directions, or contact other clerks familiar with like software, etc. And this is one of the hidden benefits of the

rate study, is that it helps clerks become more familiar with how their systems work and whom to contact in times of need. It also helps administrators persuade those same hard to convince

council members that new software or new billing systems structures are needed. A good clerk is a treasure for any town lucky enough to have one, and that is typically reflected in the rate study results.

For the mayors and utility boards, the benefits are many, but I will discuss the most important in my opinion. To me the most important benefit is seeing in black and white exactly where your bottom line is; and whether your rates are sufficient to cover the expenses. Hopefully the council has been doing their due diligence over the years, and been raising rates accordingly on a yearly basis. If not, maybe the rate study will give them the knowledge to do the right thing and treat the water department as a business that must be able to support itself. I am willing to attend board meetings and explain my results for the public to understand the needs. Hopefully this will take some of the backlash off of the council and make their decision easier.

And the biggest benefit of all from the rate study, is that it shows that the town or rural system is interested in getting as much information as possible to make informed decisions. It also brings about discussions on the local level that may not be happening often enough on a day-to-day basis. Communications among all system staff and board is essential. And hopefully at the end of the day, everyone has a better understanding of the business side of things; but also what their part is in the big picture. Good luck, it's not always an easy process! 💧



Deadline Day

by *Richmond Adams,*
IRWA Sourcewater Protection Specialist

With the final round of deadlines for source water protection plans (SWPPs) looming, I thought it'd be worthwhile to have a quick refresher of what's needed in case those who put it on the back burner to deal with other things still haven't come back to it.

As I'm sure many of you are well aware by now, in 2019 Illinois Administrative Code Title 35 Part 604 Subpart C was made effective which requires a SWPP for each community water supply that treats surface or groundwater as a primary or emergency supply of water. This also applies to systems that have unused groundwater wells as an emergency water supply. However, if you purchase 100% of your water from another community that has already treated the surface or groundwater and do not have a groundwater well for an emergency supply, then you're one of the few who is off the hook - no SWPP needed.

For those that do need to complete a plan the regulation may seem a little daunting at first, but when you break down the requirements, it's really not the headache it may initially appear to be. To that end, the IEPA has put together a "Tips & Suggestions" sheet that goes through each section point-by-point and lays out what's needed in each part with helpful examples, I highly recommend utilizing that sheet when putting your plan together.

To summarize, you'll need:

1. A Vision Statement – This is a description of your community water supply's policy and commitment to protecting source water along with the resources you have available to do it, the barriers you may encounter and those individuals tasked with seeing the plan through.
2. A Source Water Assessment – An assessment of water sources, water quality and potential contaminants. Luckily for most, the Illinois Environmental Protection Agency (IEPA) has already done a lot of the heavy lifting and completed this part for you. Though the assessments completed by the IEPA were most likely done over two decades ago so they will need some updating.
3. Objectives – Measurable objectives for protecting your source of water
4. An Action Plan – A description of projects, programs and/or activities to meet your previously stated objectives.

Now, a good number of systems will have already completed and submitted theirs over the past two years but for the

supplies servicing less than 3,000 people your plan will be due on the 26th of July 2024. I wouldn't wait until July to get started, or even June, as it can take time to get together with your steering committee and get the ball rolling.

If you need help getting started, understanding the regulation requirements, locating your Source Water Assessment Program fact sheets or anything else related to completing your source water protection plan, please feel free to reach out to me via phone (217-820-2037) or e-mail (adams@ilrwa.org) and I'd be happy to assist. The earlier you get started on this, the earlier you can get it squared away and stop worrying about it. 💧



Is My Water Bill High?

by Kent Cox,
IRWA Clean Water Act Training &
Technical Assistance



One day this winter I received a random text message from my brother which included a picture asking, “does my water bill seem high?” Okay, so if you’re like me after spending over thirty years answering this question, then the question alone triggered one of my first pet peeves. The bill clearly stated that it was for water, sewer, garbage, and recycling. I resisted jumping on this point and sending him a snarky reply clarifying this and began to assess and troubleshoot. You know all the questions that you run through when you are assessing a potentially elevated bill.

I quickly fired back a text message reminding him that his meter was in the basement, and that this ruled out a service leak being the culprit because it would not be going through the meter. Unfortunately, this also meant that the water had been used and the bill amount would be due unless the meter had been misread. Since his meter is in the basement with an odometer remote outside his door I had him confirm both of those in comparison to the meter reading listed on the bill. The readings checked out. So what next?

I continued to ask the normal questions to troubleshoot a high bill including:

- Have you checked your toilets for phantom flushes?
- Have you checked for plumbing leaks or drips?
- Did you let any faucets run during the cold to prevent freezing?
- Have you checked your hose?
- Have you checked your water softener to make sure it’s not regenerating too often?

The responses were “no leaks”, and “everything is good”. So, at this point I was wondering if he was just having a bad day?

Is he just messing with me? Why the inquiry if the bill was high.

Okay, so what else may cause high usage? They are a family of three. The billing cycle in question included a holiday weekend that he had a lot of company including his two daughters with their significant others staying the weekend. This of course, meant extra flushes, showers, dishes, and so on. Of course, I did not have any of his usage history. So, high compared to what?

Since I was lacking the real pertinent information, the usage history, I went to my desk and pulled out my own bills to compare. I began breaking out the water, sewer, garbage, and

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Is My Water Bill High?

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recycling for each of our bills and comparing them side by side. This was not apples to apples since there are only two in our house, so I also converted the cubic feet to gallons and looked at how their usage compared to the old rule of thumb of an average of 100 gallons per day per person.

Neither the total bill, the rates, the meter fee, nor anything looked high. It was higher than mine, but he lives in the Northern part of Illinois. I assumed that his bill would be higher because of the cost of living there. I sent another reply giving the comparison to my bill and that I didn't see anything out of line with the usage, nor the amount of the individual charges and fees. Well, thankfully this was a family member, and not a customer since I realized a mistake as I clicked send.

I quickly sent another text to make certain of the mistake that I had just caught. "Does your bill only come bi-monthly?"

The response was that this was correct. Well, what a letdown! All the rates for the services on their bill were lower than mine! Perhaps there is a little sibling rivalry here. I'll let you be the judge.

So, I messaged him that I had made an initial mistake by making all the comparisons as if the bill was for services for one month instead of two months. I went on to admit that he had nothing to complain about with this bill since it was considerably less than mine. This makes sense though since they have four times the service connections as in the community where I live, so there are four times the number of bills to spread all the expenses between. 💧

Apprenticeship Program Update - Growing Opportunities

by Jeff Tumiat, IRWA Apprenticeship Coordinator

I am very happy to provide you once again, with yet another positive update about the Illinois Rural Water Association Apprenticeship Training Program's progress, as it continues to grow. We currently have twenty active apprentices, and are starting more Operation Specialists in the program continually. To date, we have sixty-seven applicants. And, we have an expanding pool of eligible applicants. Currently, thirteen are waiting for their chance to enter the Water/Wastewater Industry, and ultimately someday becoming Operations Specialists.

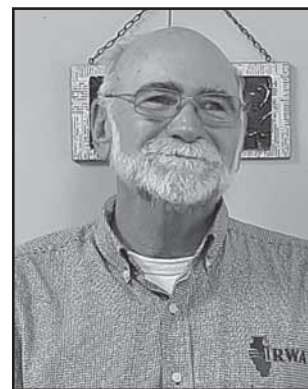
If you're community water or wastewater system is looking to hire new staff, please consider giving one of them consideration. We are constantly trying to increase our pool of participating employers looking to hire and train the next generation of operators, and would be happy to add you to the group. There's no fee, and we complete all the necessary paperwork.

Time really does fly, as our first group of Water Operation Specialists, which started their apprenticeship journey in September of 2021, are quickly approaching completion of the program. Some of them have challenged and successfully

passed their IEPA certification exams. Congratulations and thank you for the work that you do. You do make a difference, as you strive to provide safe potable water and/or properly treat wastewater before

returning it back to Mother Nature. You are part of an elite group and have chosen a very noble and satisfying career path...and should be very proud of your efforts.

We would also like to announce another new and exciting development in the program. We now have a full-time traveling trainer. Marc Lemrise, who previously served as an IRWA Circuit Rider, has transitioned into that new position. He is developing onsite training presentations, and has started giving



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Algae Issues - Looking Below the Surface

by Scott Tozier,
IRWA Wastewater Technician

Running around Illinois this summer it seems like a lot of Villages are running into the same thing, too much algae in their lagoons. It's not totally surprising with the exceptionally mild winter most of Illinois had this last winter. With IEPA seemingly tightening the clamps more each year with excursions, it's getting more important to keep the algae concentration in the Wastewater lagoons in check.

Usually, the first questions I ask when I show up to a facility struggling with high TSS levels due to algae is "When is the last time you had a sludge survey done?" Most of the time, the answer is "I have no idea". It's very important to keep track of the sludge volume in these systems. Most municipalities get used to not spending any money on sludge removal, then when it is time to remove sludge from the lagoon the cost is staggering to the communities. If you closely monitor the sludge volume, there are ways through bacterial addition to reduce and prolong the time between having to remove sludge. It is inevitable that you will have to remove sludge from these systems; and the municipality should be tucking money away to do these projects instead of hoping the State or Federal governments are going to

come through with a great loan or grant program to fund these projects. Mechanical plants have to remove sludge from their systems on a regular basis, and have to budget for this expense; but lagoon systems are designed to run 20 to 30 years without having to do it. When it is time, this expense can run hundreds of thousands to millions of dollars, depending on the size of the system.

Lagoon systems are designed mostly to have some algae in the system to help with dissolved oxygen, which is essential to keep the bacteria that do the work of cleaning the wastewater healthy. When there is an excess amount of sludge, the algae start to bloom and take over and that leads to violations if the nutrient levels are too high. Bacterial augmentation can help with the sludge volume as well as keeping a good population of healthy bacteria in the system to treat the wastewater. A common theme I'm beginning to come across when I visit numerous facilities across southern Illinois, is when I see the lagoon and the water look very clear, and almost every time the system is using some kind of bacterial addition. For years I wasn't a big fan of using additional bacteria, but I have seen under a microscope the difference it makes in a mechanical plant; and from what I'm seeing all over Illinois in many different lagoons, it must be working.

I was just at a wastewater plant the other day that IEPA hit with a Notice of Violation for high TSS. Through many



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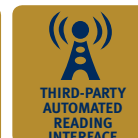
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Algae Issues - Looking Below the Surface

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conversations trying to decipher what the cause was, I found out that the facility did not have a recent sludge survey and had been using bacteria. But, they had quit a few years ago adding it to the system, and that just happened to be the time when the high TSS numbers started to elevate.

There are many providers of bacteria in the area, but I would advise keeping with one that their business is sewage treatment. Some chemical companies carry lines of bacteria, but that is not the main business that they are in. Some of the providers in Illinois, that are wastewater specific companies, include Water Treatment Technologies, AquaFix, and Air Diffusion Systems. If you need contact information for any

of these companies, feel free to reach out to me for phone numbers. A regular program to add bacteria is beneficial, but cost is always a factor. So,

working with a company that is in the wastewater treatment field, can minimize your cost to the benefit provided to the system.

Algae can be controlled through other methods such as chemical addition to the lagoon, but this treatment is usually a temporary fix to a bigger problem which is usually the sludge in the lagoon. The chemicals used can vary depending on the type of algae present as well as concentration of that particular algae. There are also some Ultra Sonic units on the market which emit sound waves that will help control algae concentrations. And, there are some facilities that are using this method with success.

Illinois Rural Water Association can and does do sludge surveys, as well as other companies such as WTT and Rhino Industries. The sludge survey we provide does only spot check areas of the lagoon system, but gives a good overall idea of whether a full-blown process needs to be done by one of the above-named or other companies.

If your facility is struggling with high TSS, or is close to having high values on your DMR, don't wait until you are in violation to address the issue. It's a lot cheaper to treat the problem ahead of time than wait until you are in violation and hit with a NOV from IEPA...and then the project blows up to a huge financial hardship on your community. 💧



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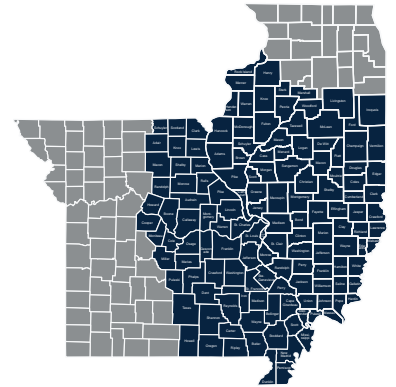
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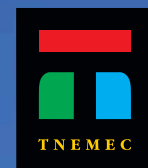
Keith Kennett

Taylor Coating Sales, Inc.
Tel: (309) 945-2094
kkennett@tnemec.com

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Mike Cerutti

Coating Solutions, LLC
Tel: (314) 703-8042
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OUR COMMITMENT

- Response to members in a timely and professional manner
- Individualize communication style preferences including email, mail, phone, fax
- Attend and Contribute to IRWA Conferences



John B. Griffith

801 N. Third St., Suite B
Effingham, IL 6240 (217)
347-0584 ext. 3105

john.griffith@dimondbros.com

Sean Griffith

801 N. Third St., Suite B
Effingham, IL 62401
(217) 347-0584 ext. 3104

sean.griffith@dimondbros.com

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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 letter-head and mail to:

Illinois Rural Water Association

P.O. Box 49

Taylorville, IL 62568



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I & I Everybody's Problem

*by Jeff McCready,
IRWA Wastewater Technician*

Inflow & Infiltration - From systems that are 10 to 15 years old to 100 plus years old, I & I is an issue during heavy rain events. It can cause CSO's (combined sewer overflows), SSO's (sanitary sewer overflows) and all kinds of issues at the treatment plant, which all three means more paperwork.

According to the USEPA, "inflow" generally refers to rain or snow melt that enters a sewer system through a direct connection to the sewer, such as connections like storm sewers, roof drains and sump pumps. Throw in missing sewer cleanout caps also. "Infiltration" generally refers to storm water or ground water that enters a sewer system through defects in the sewer such as leaking pipe joints, cracked or compromised sewer mains, root intrusion into the pipes and compromised manholes and manhole covers. Also compromised lateral connections.

According to some data, a single leak from a manhole or a pipe can generate up to 7,200 gallons of water each day. I venture to say if you have a single leak, you have numerous leaks. This all adds up to extra costs for the system, whether it be at a lift station or at the treatment plant. Some systems have issues

with homes having sewage backup in their basements, causing significant damage and costs. We all know how "messy" that can get.

There are a few different options for identifying sources of I & I, such as smoke testing (see the Fall 2022 issue of Waterways for Scott Tozier's

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I & I Everybody's Problem

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article on smoke testing), dye testing and video inspections.

Once a source of I & I is located, the fix is not always an easy one. For instance, a storm sewer inlet is found to be going into the sanitary sewer, it cannot just be disconnected or it causes another problem like street flooding. There has to be somewhere for the storm water to go. Unfortunately, none of these options will find sump pumps. That will usually require a visual inspection.

If you would like more information or assistance with any of these options, contact the IRWA Wastewater Tech in your area or the IRWA office. 💧



42nd Annual Technical Conference



LOADING...

February 20 - 22, 2024

Mark your calendar for next year's annual technical conference at the Keller Convention Center in Effingham. Exhibitor registration will open in late November and attendees will be able to begin registering in December. Keep watching our website and social media pages for updates.



Apprenticeship Program Update - Growing Opportunities

continued from page 9

in-person training class sessions all over the state. Scott Tozier and Kent Cox will also continue to help with training as their workloads allows. It truly takes a team effort, and Illinois Rural Water has a great one...ready and willing to assist with all your training and technical needs. With the addition of the onsite service, we will be training in smaller groups scattered all around the state, allowing for more one-on-one time with each apprentice, while limiting their travel and time away from work. Our current plan is for each apprentice to have a minimum of one onsite training opportunity, monthly.



Interested individuals looking to enter the water and wastewater field, can complete an application on our website. Once all the criteria is met, they will be placed on the eligible apprentice pool list. Systems looking to fill the shoes of those retiring employees, or simply fill an unexpected opening, must also meet the criteria in the Apprenticeship Program standards, to be eligible. Once all criteria has been met, we will register the employer and apprentice with the U.S. Department of Labor. The next step is connecting the applicants and employers. To learn more about the Apprenticeship Program, please visit our website at www.ilrwa.org.

Until we meet again stay healthy, work safe, and best wishes. 💧

"The idea is that flowing water never goes stale, so just keep on flowing." — Bruce Lee

Challenges in the Drinking Water Industry Due to Operator Shortages

*by Casey Johnson,
IRWA Board Member*

The drinking water industry is facing a critical challenge that threatens the delivery of safe and reliable water to communities across the globe – a shortage of water operators. These highly skilled professionals are the backbone of the water treatment and distribution systems, ensuring clean and safe drinking water reaches our homes. However, as the demand for clean water rises and the existing workforce ages, the industry faces a shortage of qualified operators.

One of the primary challenges the drinking water industry faces is the growing shortage of water operators. Several factors contribute to this shortage:

- Many water operators are approaching retirement age, and there need to be more younger professionals to replace them. This demographic shift is creating a significant skills gap.

- The lack of support in training and education programs has hindered the development of new water operators.



In Illinois, we are fortunate to have several training and continuing education opportunities through organizations like the Illinois Rural Water Association. But in more rural areas, some water plants still do not

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FREE RATE STUDY

Why Have a Rate Study Conducted?

With the amount of grant dollars available for water and wastewater projects continuing to dwindle, coupled with the aging water and/or wastewater infrastructure, it is increasingly more important that decision makers for systems throughout the state become more educated about system finances. This **FREE** rate study takes an in-depth look into the expenses and revenue that a system has. Once all of the data has been gathered and entered into a spreadsheet a detailed report is generated to explain the findings and recommendations. This easy to read report and any rate changes recommended will assist Boards and Councils in mapping out the financial future of their respective systems.

If your system is interested in having a rate study conducted, please contact Clark Cameron at (217) 287-2115(Office) or (217) 820-3814 (Cell).

What Information Will the Rate Study Provide?

- ⇒ Breakdown of expenses
- ⇒ The cost to produce the water (if applicable)
- ⇒ Amount of nonrevenue water
- ⇒ Amount of lost revenue from water loss
- ⇒ Annual gain or shortfall in revenue
- ⇒ Different rate scenarios



What Information Will I Need to Supply For a Rate Study?

- ⇒ Financial statements for the most current fiscal year (audit report preferred)
- ⇒ Amount of water produced and/or purchased during the most current fiscal year
- ⇒ Amount of water sold during the most current fiscal year
- ⇒ Current rate structure
- ⇒ Number of customers in each rate class
- ⇒ Amount of debt (if any)



Video inspection technology for wastewater and storm sewer systems can help you identify and prioritize maintenance issues, while improving service and reducing emergency maintenance costs.

Small jobs (typically two city blocks, or less than 800 feet) has a "Maintenance Fee" charge of \$500.00 for our members. Non-member utilities pay \$750. There are no additional expenses charged for this type of small project. Larger projects requiring more time and inspection coverage, will be based on the Maintenance Fee (reduced for IRWA members), cost per foot (30% IRWA discount) and expenses.

Due to staffing varied work demands and logistics, IRWA will not undertake inspection jobs exceeding 5,000 feet maximum per project. For more information, or to schedule an inspection of your system, email Deputy Director Don Craig at: craig@ilrwa.org or call him at 217-561-1061.



Our mapping technician will work with your system personnel to develop digital and hardcopy system maps of your water system infrastructure. This is also true for wastewater systems and/or storm sewer features, if needed.

IRWA personnel will first do complete GPS of system features. Attributes on these features can be added when gathering the data, and also added by facility personnel any time after the project is completed.

Incorporating this kind of data allows you to monitor, edit, and evaluate your system at a whole new level, including from computers, cellular based tablets or cell phone. IRWA will input the data from the field, and through the GIS processing stage, add background layers such as aerial photography and road view maps with detailed views of your system. At the end of the project, all data and the maps will be owned by you for use in the future.

Through a project proposal, the cost for services is determined by a charge per each system feature located and mapped; and overall project expenses. These amounts will be discussed with system personnel, and documented before the start of the project. IRWA members receive an automatic 30% discount, and possibly a larger reduction with bigger projects.

For more information, please contact Deputy Director Don Craig via e-mail: craig@ilrwa.org, or via phone: 217-561-1061 or visit our website: https://www.ilrwa.org/Equipment/Asset_Mapping.html.

What are you looking for? - The ABC's of ilrwa.org

- Advertising in Water Ways information** (Ad agreement and links) - Publications > Advertising Information
- Apprenticeship**—Resources > Apprenticeship
- Becoming a Certified Water or Wastewater Operator**—Resources > Becoming a Certified Operator in Illinois
- Boil Order Notice**—Resources > Downloads
- CCR**—Services > e-CCR Hosting
- Certification Overview from IRWA**—Training > Certification
- Certified Water Operator Contract**—Resources > Downloads
- CEU Forms from webinars or conferences**—Training > CEU Form Archives
- CEU's from CD training**—Training > CD's
- Compliance Assistance**—Services > Compliance Assistance
- Cross Connection** (manual, survey & ordinance) - Resources > Cross Connection
- Current hot topics and upcoming events** - Home
- Energy Efficiency Assessment**—Services > Energy Efficiency
- For Sale/Wanted**—Services > For Sale/Wanted
- Forming a new water district**—Resources > Downloads
- GPS/GIS**—Services > GPS/GIS Mapping
- Industry Organizations**—Resources > Links
- Job Board**—Resources > Job Board
- Lead Information** —Resources > Lead Information
- Leak checklist and how much am I losing flyers**—Resources > Downloads
- Legislative Information** – (Who is my rep?, Bills that IRWA is following)—Resources > Legislative
- Mutual Aid**—Resources > Downloads
- Nitrification Action Plan Information**—Resources > NAP
- NFP Tax Forms** — Resources > Downloads
- NRWA Fleet** - Membership > Benefits—click on the NRWA logo
- Operator Groups**—Resources > Links
- PFAS**—Home
- Rate Study**— Services > Rate Study
- Red Flag Act**—Resources > Downloads
- Speaker Request Form for Conference** —Training > Conferences
- Tracer Wire Specs**—Resources > Downloads
- ERP/Contingency Plans**—Resources > Emergency Preparedness Planning
- Video Inspection Services**—Services > Video Inspection
- Wastewater CEU information**—Training > Wastewater > under table
- Water Loss Handouts**—Resources > Downloads





Rural Water Fleet Program

The National Rural Water Association has created partnerships with motor groups to offer discounts to utilities around the country. Member utilities should contact their State Rural Water Association to access the Rural Water Fleet Program.

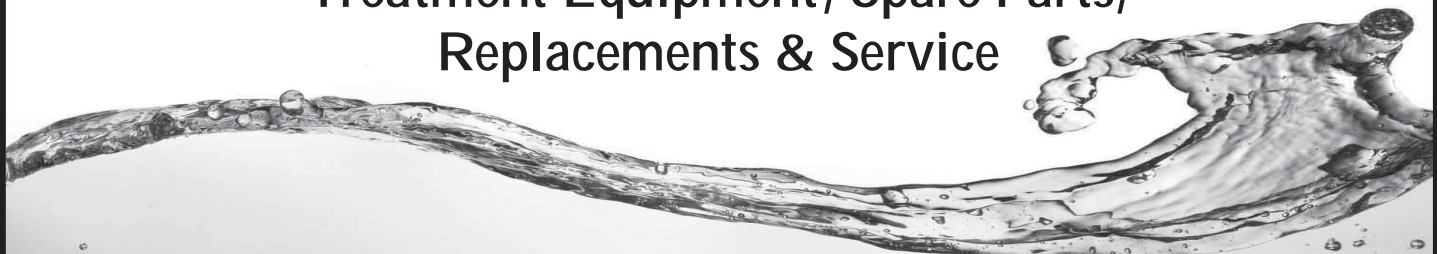


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Challenges in the Drinking Water Industry Due to Operator Shortages

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have internet. Some of these same systems are being ran by one or two people, making it hard for these operators to get away from their system for an extended period.

So, we must be mindful to assist those operators to ensure they receive training and education.

- The demanding nature of the job, makes it less appealing to young people. From what I can tell, this could become only more difficult to overcome. Maybe it is my perspective, but most young people do not seem real interested in working in today's world.
- Skilled water operators are in high demand, not only in the public sector but also in the private sector, where salaries and benefits can be more attractive. Thus, creating an even bigger challenge for the public sector.

The shortage of water operators has several critical implications for the drinking water industry. A reduced workforce can lead to less frequent water quality monitoring and maintenance, potentially compromising the quality and safety of drinking water. Inadequate maintenance can accelerate water treatment and distribution infrastructure deterioration, leading to costly repairs and replacements in the long run. During emergencies such as pipe breaks or contamination incidents, a shortage of operators can delay response times, increasing the impact on public health and safety. Meeting regulatory requirements becomes more challenging when there are not enough operators to ensure that treatment processes consistently

comply with health and environmental standards.

To address these challenges and ensure the sustainability of the drinking water industry, several strategies can be employed:

- Governments, municipalities, and industry stakeholders should invest in education and training programs to attract and develop a new generation of water operators.
- Competitive salaries and benefits can make the profession more attractive and help retain experienced operators.
- Utilize innovative technologies such as automation and remote monitoring to increase the efficiency of water treatment and distribution systems.
- Encourage collaboration between public and private sectors to share resources and expertise in managing water systems.
- Be transparent with your board, council, commission, or administration. Educate them on what is going on in the water industry. Provide them with data and literature that will support your perspective. Also, encourage them to attend conferences or continuing education opportunities.

The shortage of water operators is a pressing issue that poses significant challenges to the drinking water industry. Ensuring a reliable, clean drinking water supply is essential for public health and our communities. To address this shortage, efforts are needed from governments, water utilities, and educational institutions to attract and retain skilled operators and invest in modernizing infrastructure. Only through such efforts can we protect the future of our drinking water systems and the health of our communities. 💧

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STATISTICS SHOW:



Cost of energy is expected to increase 20% in the next 15 years.

Energy use is the largest controllable cost of providing water and wastewater service to the public.



Rising energy costs represent a major challenge for water and wastewater facilities also facing challenges of:

- 1) Aging Infrastructure which needs replaced
- 2) More stringent regulations
- 3) Population growth
- 4) Higher operational costs and budget restrictions

Consider ...

The high cost of operating utilities has gotten to the point where the utility has to look at all options available. Keeping the operational costs to a minimum ensures that your rates are the lowest possible and still ensure safe drinking water and wastewater utilities.

What do we assess?

The Energy Conservation Circuit Rider will assess your electric bills, system assets and operational procedures. They will break it down into a usable format with options to explore which will lower costs and a projection of the time to payback.

Why ...

Most Operators spend their time in operational issues to ensure safe drinking water and maintaining compliance. They often do not have the time to dedicate to energy savings or expertise in doing assessments. We can take the time and figure it out for you.

Key Offerings

Find where your system can save money on energy. Not only can your system be more efficient, it can outline which changes can generate repayment the quickest.

What is requested of the system?

- Provide Tour of Facilities for Circuit Rider
- Copies of Energy Bills for at least one year
- Review and Share Energy Assessment with Operators
- Review Financing Alternatives if Feasible
- Implement an Energy Efficiency Plan

15-30% SAVINGS ARE READILY ACHIEVABLE



HOW??

- 1) MAKE THE COMMITMENT!
- 2) ASSESS THE FACILITIES
- 3) ESTABLISH A PLAN

A Few Findings of Assessments

- **System-Hot Water Heater-** 80 Gallon Electric Heater-24/7 in a Filter Room only for Eye Wash Station-Approximately \$2,200/Yr Savings
- **System-Water Loss** 75%, System Improvements Save \$3,300/year in Electrical For Wells
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How Do I Get A Free Energy Assessment?

Contact Dave Speagle

217-820-1560 – cell phone

217-287-2115 – IRWA office

speagle@ilrwa.org

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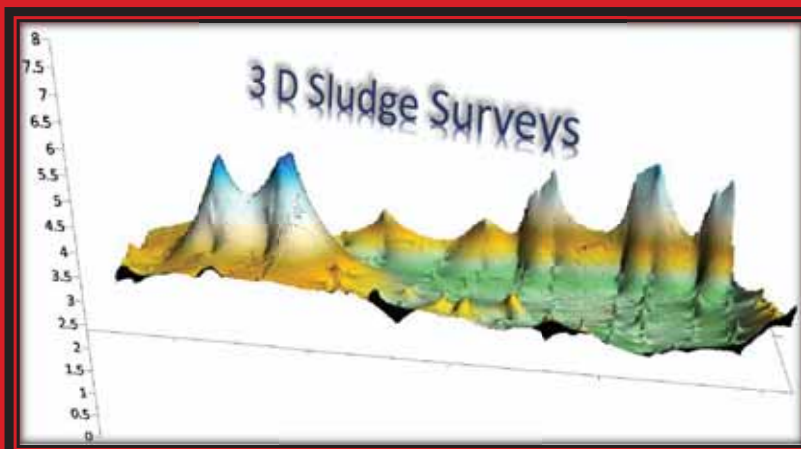
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