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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 Marquette Heights, Illinois.

Water Ways is the official publication of the Illinois Rural Water Association, P.O. Box 49, Taylorville, Illinois 62568, and is published quarterly for distribution to members as well as other industry associations and friends. Our website is [www.ilrwa.org](http://www.ilrwa.org). Articles and photographs are encouraged. Advertising and submissions should be mailed to the above address or e-mail us at [ilrwadb@ilrwa.org](mailto:ilrwadb@ilrwa.org).



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# *Rural Development Continues as a Crucial Partner for Rural Systems*

*by Don Craig,  
IRWA Executive Director*

As we head into 2025, I just want to remind all community water and wastewater systems personnel, about the important role that USDA's Rural Development plays in regard to funding opportunities for rural utility projects. As you may or may not be aware, Rural Development is not only a great asset to small rural systems, but is also a huge supporter and partner with the National Rural Water Association, and all their state affiliates throughout the country in regard working with those utilities in all facets of onsite technical assistance and training for the betterment of operational and administrative personnel, and the system itself.

I recently received the update below in a press release by USDA, on some projects that have been funded by RD here in Illinois, and wanted to pass that along to all our members throughout the state.

\*\*\*\*\*

## **EIGHT RURAL ILLINOIS TOWNS AND COOPERATIVES RECEIVE OVER \$16.8 MILLION IN USDA RURAL DEVELOPMENT WATER AND WASTE LOANS AND GRANTS**

**CHAMPAIGN, IL Dec. 23, 2024** – U.S. Department of Agriculture (USDA) IL State Director Pam Monetti announced that USDA is investing \$16.8 million across rural IL towns and communities to expand access to a clean and reliable electric grid, provide safe drinking water.

“Having access to safe, potable water is a basic necessity for peoples’ and community health and wellness”, says Monetti. “These investments help rural towns and communities improve and maintain their water main and waste infrastructure. While these projects might not be quite as exciting or shiny, they are equally as important and Rural Development is here to help.”

### **Illinois Projects**

#### **include:**

- **Clinton County - Village of Damiansville**

received a \$1.2 million grant to upgrade the Village of Damiansville

water systems. The village will be building a new elevated 100,000-gallon water storage tank, installing new main lines, and building a new pump station for the existing connection they have with Albers distribution system. The new pump station will include a new master meter and separate chemical feed rooms for chlorine and ammonia treatment to comply with current and future IEPA requirements. In addition to bringing the village up to date with IEPA requirements, this project also bring the village facilities up to OSHA standards that the old storage tank did not meet.

- **Effingham County - EJ Water Cooperative Inc** received a \$4.8 million loan to make updates and additions to their systems to help their surrounding communities. This project will construct 18.4 miles of water main, a new elevated storage tank, pump upgrades at the Delbert Mundt water treatment plant and complete water tower repainting. This project will serve townships and towns in Montgomery, Christian, Richland and Shelby Counties, serving a population of 1,100. The project will alleviate IEPA health and sanitary hazards due to current systems not meeting water pressure and bacterial contamination standards.



continued on page 5

## *Rural Development Continues as a Crucial Partner for Rural Systems*

*continued from page 4*

- **Macoupin County - Village of Medora** received a \$150,000 loan and a \$100,000 grant to replace approximately 11 miles of water main for the Village of Medora. The water main has reached its useful life and needs constant repairs due to breakage. The replacement water main will improve health and sanitary concerns for the entire service area and ensure the continuation of services such as safe potable water. This water main replacement project serves portions of Jersey and Macoupin Counties.
- **Morgan County - North Morgan Water Cooperative** received a \$2.5 million loan and a \$1.3 million grant to provide a potable water system to residents in the Arcadia, Prentice-Sinclair, Concord, Hagener, and Meredosia areas. These areas do not currently have any public water supply, and the residents rely on private wells, which, in many cases, do not provide the quality or quantity water necessary. This phase of the project will install 38 miles of water mains.
- **Morgan, Scott, Green Counties - Scott-Morgan-Green-Water Cooperative** received a \$455,000 loan expand the potable water system in Morgan and Scott counties. The investment will enable them to build approximately 20 miles of water main, a new master meter, flushing hydrants, and more. Previous funding includes \$1,847,400 in Rural Development loans and grants.
- **Pulaski County - Village of Ullin** received a \$1 million loan to renovate their sewer system. Renovations include replacing aerators, control system, rock filter with a baffle curtain, remove rock at existing lagoon cells banks, remove sludge from both lagoon cells, install influent screen system, a compactor to compress screenings, construct a concrete apron for truck access to haul off the screenings, and place gravel to repair spots in the access road. This also includes rehabilitation of the lift station and replacement of some pumps. This project will alleviate a documented Illinois

Environmental Protection Agency health and sanitary hazard.

- **Union County - City of Anna** received a \$949,000 loan and a \$1.9 million grant to help replace their outdated water system. The project includes repainting the 200,000-gallon water tank, replacement of over 2,000 water meters with installation of new radio read system that will reduce the current water loss, and rehabilitation of the pump station. A 500,000-gallon storage tank will be built to meet adequate fire protection and usable storage on hand. Improvements ensure health and safety concerns are eliminated and the systems meets IEPA standards. These improvements also help the local shops that see more than the average water use of the other local villages because of tourism. This funding greatly impacts Anna as it is a distressed community and distressed energy community.
- **Williamson County - City of Carterville** received a \$2.5 million loan to help complete two **new water towers** that will bring them in EPA compliance for full-fire 24-hour storage and alleviate health and sanitary issues and concerns for the city.



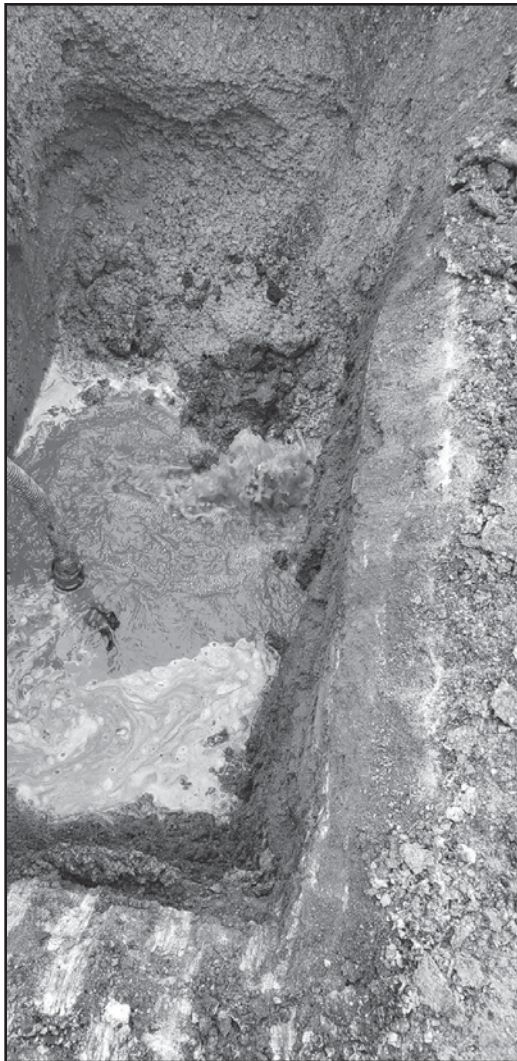
### **Strengthening Rural Water Infrastructure**

The Department is making the investments through the Water and Waste Disposal Loans and Grants program and the Solid Waste Management Grants program. 💧

## *“Leak” is a Four-Letter Word*

*by Chuck Woodworth,  
IRWA Circuit Rider*

Another winter season is upon us. Along with that is the freezing soil, shifting soil and the dreaded four-letter word. It ends with the letter k, some places you can't even say it without getting a nasty look from the operator. I'm not going to say it and you probably should not either, but I am going to type it. Leak. There I typed it hope you didn't say it. I've located the normal small leaks this fall. I have also had a couple of emergency calls already this season. One lost the tower, the other was getting close. The one that lost the tower called me at 6:00 am. I was wide awake when he said the water tower was empty. I suggested that he start closing valves to hopefully isolate the leak. I got out of bed, packed up my stuff, checked out of the hotel and



grabbed some breakfast from a drive-up window. I was on the road headed his way in about 30 minutes. When I arrived, they were still closing valves trying to isolate it.



They were able to maintain about 32 feet of water in the standpipe. A contractor had found a storm sewer manhole that had lots of water flowing through it. Went to that area and listened to a hydrant and a couple of valves. It was difficult to hear the leak with such low pressure. The Zcorr leak locator gave me a location between two valves, I double checked it with my handheld locator, listening directly on the street. It was not much of a sound, but I could hear something. With a reassuring “I would dig here” and the ok from the operator, the contractor began digging. With a news camera filming everything, I was really hoping that I had pointed out the correct location. I always start to doubt myself when the backhoe starts digging into years' worth of oil and chipped streets. It's even more stressful on me when they must bring out a concrete saw to cut out a section of truck route thick concrete. I can't bring myself to leave while they are digging. I need to see water flowing into or spraying out of the hole before I can leave. Most of the time I will stay and offer any help that I can provide.

I've heard from some operators that I am too slow to mark a leak. I don't think I'm being slow, I'm just making sure. I am double checking the equipment that I use to make sure it's the correct spot. I am making sure that you only have to dig one hole. That was the case in this situation, the Zcorr leak logger gave a location and with the low water pressure it could have been

continued on page 7

wrong, so I double checked it with the Subsurface handheld LD-7 that I always use. Yes, it took another 15 minutes to do that but by doing that I could give a reassuring “dig here”. I normally say, I know several of you have heard me say this “I can get you within a backhoe bucket length from the leak”. The other saying I like to use is “if I’m correct there is no charge”. That always got puzzled looks from operators. There is no charge for anything I do. I mostly just say the bucket length one. The contractor was able to get through the oil and chipped street after a few more dips of the bucket water started pouring into the dug hole. (picture #1) then removing soil from around the pipe (picture #2)



installed the repair clamp and picking up (picture #3). Going back around town to open all the closed valves and waiting for the tower to start filling. I should have taken a picture of the 3 or 4 guys at the water plant watching the pressure gauge slowly increase. I was on-site that day for 5.5 hours and I was happy to be able to help. I was just about to feel warm when I received another leak call. This one was not an emergency but was an hour’s drive away. Just like Willie Nelson’s song I was “on the road again”. Happy trails and stay safe out there. 💧



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## *Apprenticeship and RTI*

*by Marc Lemrise,  
IRWA Apprenticeship Training Director*

Having friends in the trades, it seemed that frequently someone was missing from a Monday night Football party or poker game because they had evening classes at the union hall or community college. (OK it was like 40 years ago) These friends were in apprenticeship programs at the time, taking the classes mandated by their respective trades.

Carpenters develop skills on the job relating to cutting and assembling the parts to make a building. But the related technical instruction includes blueprint reading, estimating material and labor costs, and a basic understanding of structural engineering. Electricians have to study electrical theory, learn how to read schematics and be able to troubleshoot problems. Journeymen plumbers also need some knowledge of hydraulic engineering and design. In all of these programs, safety is an important topic.

Public water supply and wastewater operators develop their skills through performing the daily tasks that keep a treatment plant and a distribution/collection system operating properly. Skills like leak repair, equipment maintenance, and operating heavy equipment. RTI compliments that practical, hands-on training with classroom-based education. Combining these two elements produces a well-rounded professional with the kind of

technical knowledge essential to making better decisions and best solve problems. Even after certification, continuing education keeps operators up to date on latest technical innovations, new regulations, and best practices.

Like every other apprenticeship program, Related Technical Instruction (RTI) is an important part of National Rural Water's apprenticeship program for water and wastewater operators. Apprentices attend a two-hour class once a month to review chapters from the textbooks and practice some applied math. We used to call them "Story problems" in grade school. There may be questions on chemical dosing, water velocity, detention time, pressure or head loss calculations. The math quizzes challenge the apprentice to use mathematics to solve the types of problems commonly encountered in the operation and maintenance of water or wastewater treatment plants.

Four textbooks from Sacramento State University provide the curriculum. Each book covers the material in progressively greater detail. "Baby steps", one could say. Elements of engineering, chemistry, physics and mathematics are studied where applicable. Apprentices are also required to attend excavation safety training and complete 30 hours of OSHA construction safety training.

Seasoned veteran or apprentice, the learning never stops. IRWA is



here to provide the materials and expertise to deliver job-related technical instruction to every operator in Illinois via conferences, certification overviews, short training sessions, and apprenticeship training programs. The Circuit Riders, Wastewater Technicians, trainers and managers at IRWA have a combined industry experience level of over 400 years! And I would add that every one of us would like to share as much of that knowledge as possible with as many people as possible. That could almost be our mission statement. Our annual technical conference in February will be an assembly of several hundred industry professionals; many presenting information on a variety of topics and products that keep water and wastewater utility operators up to date. Our conference classes are accredited by the Illinois EPA to qualify as continuing education. Attending this conference will help us to share as much information as possible with as many people as possible. Mission accomplished. 💧

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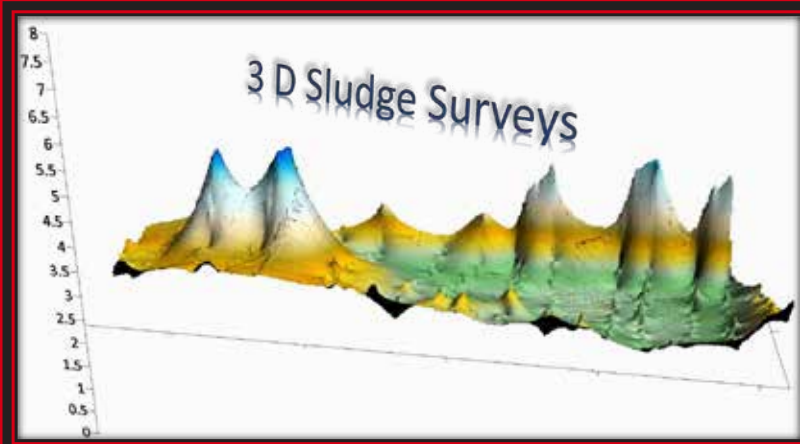
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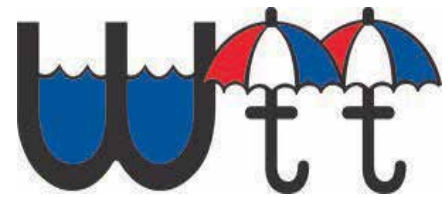
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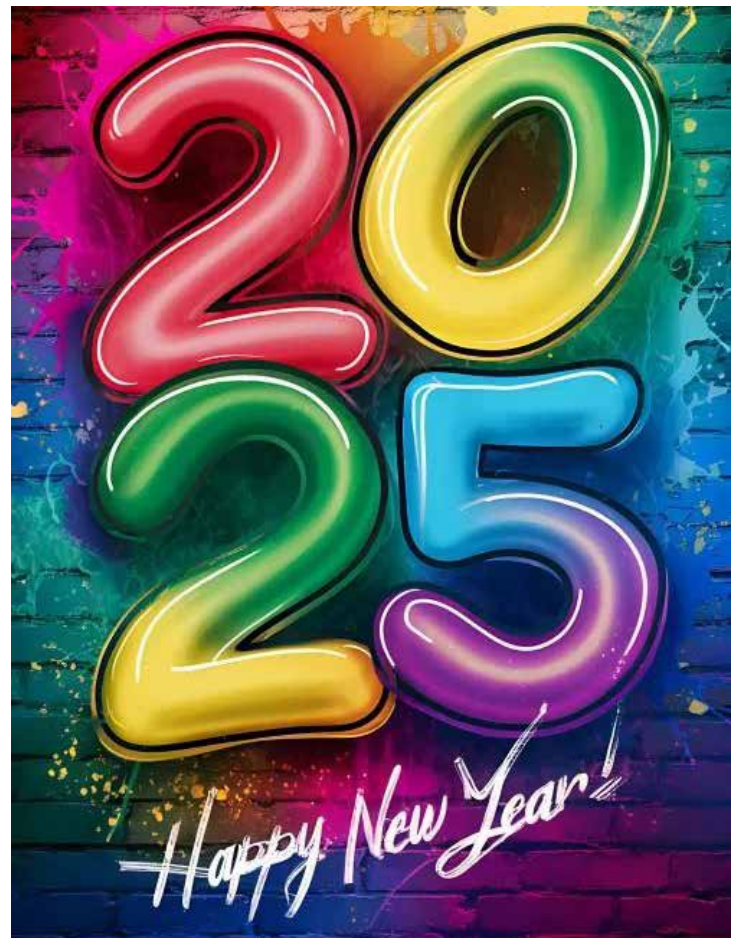
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## State of the Work Force

by Jeff Tumiati,  
IRWA Apprenticeship Coordinator

As always, it's a pleasure to provide positive updates about the state of the apprenticeship program both nationally and locally. Currently nationwide, there are six hundred forty-eight active Apprentices and three hundred forty-five completed graduates. In Illinois, we currently have thirty-nine active Apprentices, of which twenty-five are in the water training program and fourteen are in Wastewater field. We are very proud of all of our active Apprentices, for not only making the commitment to the industry, but to their selves as well. We now have four apprentices that have successfully completed the program and are fully certified operation specialists. The first three were Apprentices in the drinking water field. Recently, Chad Kistler with the Village of Tilton, became our first Wastewater apprentice. Congratulations to Chad for being the first in our state.

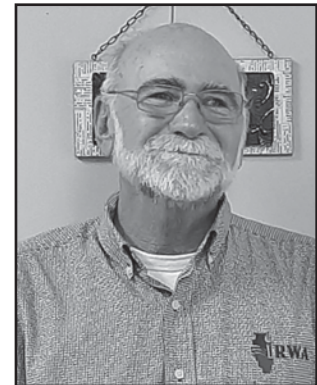
Also, during National Apprenticeship week, IRWA was able to participate in two events where interested individuals could learn about traditional and non-traditional apprenticeship programs. The first one was the Chicagoland Apprenticeship Expo, which was held on November 20<sup>th</sup> at the Chicago Public Library. It was co-sponsored by the Chicago Public Library, Illinois Worknet & American Job Center, Illinois Department of Employment Security and the Illinois Department of Human Services. I asked two of my co-workers to attend and help man the Illinois Rural Water Association booth, which was one of several presenters. When we got everything setup, I thanked both for their help and apologized thinking the attendances would be very light. My thought was considering Rural Water in downtown Chicago would not be a 'big draw'... That couldn't have been farther from the truth. Little did I know, that the organizers had limited the number of attendees to the event. I was told, that the line stretched all through the library, with most waiting several minutes to make their way to the stations. By the end of the show, we had visited with more than three hundred interested job-seekers.

The second event was held the next day at the Elgin Community College. This Expo was setup as a job fair and was open to the public seeking apprenticeship programs as well as students from the College and several surrounding high school districts. Once again, we were pleasantly surprised and almost overwhelmed by the number of attendees. At the end of the day, we had spoken with numerous people seeking careers, and several hundred junior and senior high school students, that were interested in career training and apprenticeship pathways. Both events were a huge success, to say the least. The first day, we had six new applications submitted before we left the Expo. We have also had several more submitted daily since both of the events.

We currently have several applicants we are processing. And now, we have fifty-five eligible applicants waiting for a chance to get started on the journey to a great career in the Water & Wastewater field. If you are thinking of increasing or replacing present staff, please give one of our eligible applicants your consideration. I truly believe that the National Rural Water Association Apprenticeship Program is changing the tide of the Rural Water Workforce one person at a time, both today and into the future. 💧

**“We are all apprentices in a craft where no one ever becomes a master.”**

— Ernest Hemingway



*Elgin Community College Job Fair*



*Elgin Community College Job Fair attendees*



*Chicagoland Apprentice Expo attendees*

# The Road to Certification

by Evan Jones,  
Director of Field Staff Programs  
Circuit Rider #1

I want to start by saying I hope everyone has a Merry Christmas and a Happy New Year. I hope you all have a more prosperous year than the last.

I have to say one of the hottest topics for 2024 has been water operator certification. The number of operators retiring is getting high. When one retires, there is a scramble for either a full-time operator or, at a minimum, a contract operator. If a system is fortunate enough to hire a full-time operator, it then becomes a scramble to back fill system he is coming from and so on is the cycle until all the openings are full.

When these openings are occurring either from operators retiring or moving on to an open position somewhere else, the conversation I routinely have with board members, mayors or other operations staff is: "how do I become certified or how do we get an individual certified?" The answer is most generally the same. Do they have experience? Are they ready to test or have they tested before? Here is the shortened and semi condensed version of the Road to Certification.

The experience needed to become a certified water operator in Illinois varies by certification level. Here are those requirements broken down by Class:

- Class A - 5340 hours of experience in a Class A water supply operation
- Minimum 2670 hours of hands on with Class A processes
- No more than 1780 hours for non-college course work and workshops.
  - Experience in the following areas.
  - Coagulation\Sedimentation
  - Lime Softening
  - UV disinfection
  - Pathogen removal/inactivation
  - Membrane filtration
  - 30 hours of continuing education every 3 years with at least 20 hours of it covering

technical topics. No more than 10 hours of non-technical topics.

- Class B - 5340 hours of experience in a Class B water supply operation
- Minimum 2670 hours of hands on with Class B processes
- No more than 1780 hours for non-college course work and workshops.
  - Experience in the following areas.
  - Aeration & Filtration
  - Filtration other than membrane filtration
  - Ion exchange
  - 30 hours of continuing education every 3 years with at least 20 hours of it covering technical topics. No more than 10 hours of non-technical topics.
- Class C - 1780 hours of experience in a Class C water supply operation
- Minimum 890 hours of hands on with Class C processes
- No more than 890 hours for non-college course work and workshops
  - Experience in the following areas.
  - Chemical feed
  - Aeration
  - 15 hours continuing education every 3 years with at least 10 hours covering technical topics. No more than 5 hours of non-technical topics.



- Class D - 890 hours of experience in a Class D water supply operation
- Minimum 890 hours of hands on with Class C processes
- No more than 890 hours for non-college course work and workshops
  - Experience in the following areas.
  - Pumpage
  - Storage
  - Distribution
  - 15 hours continuing education every 3 years with at least 10 hours covering technical topics. No more than 5 hours of non-technical topics.

To take the exam, you are required to submit an Examination Request for Drinking Water Operator Certification. This form can be found on the IEPA website. (<https://epa.illinois.gov/topics/forms/water-forms/drinking-water-operator.html>) This request must be accompanied by a non-refundable exam fee of \$10.00. If eligible to take the exam a Letter of Admission (LOA)

continued on page 26



***43rd Annual Technical Conference***  
***February 18-20, 2025***

***LOOKING  
FORWARD***

***Attendee Information***  
***Keller Convention Center - Effingham, IL***

**Host Hotel  
SOLD OUT!**

### HOST HOTEL

Holiday Inn  
1301 Ave. of Mid-America  
Effingham, IL  
Phone: 217-540-7777  
\$130.00 + tax per night

### Auxiliary Hotel

LaQuinta  
1103 Ave of Mid America  
Phone: 217-540-1111

### Auxiliary Hotel

Country Inn & Suites  
1200 N. Raney St.  
Phone: 217-540-5555

### Auxiliary Hotel

Holiday Inn Express  
1604 Fayette Ave  
217-994-9949

### Auxiliary Hotel

Best Western-Delta Inn  
1509 Hampton Drive  
217-342-4499

### Auxiliary Hotel

Hampton Inn & Suites  
1305 N Keller Dr  
217-540-5050

### CONFERENCE LOCATION

The conference will be held at the Thelma Keller Convention Center located at 1202 N. Keller Dr. The convention center is attached to the host hotel.

### REGISTRATION

Registration & badges are required for all conference attendees. Please register each attendee using the registration form included.

### Pre-Registration:

To pre-register complete the registration form and mail with payment to:

*IRWA, PO Box 49, Taylorville, IL 62568*

To pay on-line with your credit card, go to [www.ilrwa.org](http://www.ilrwa.org) and click on the conference link on the home page.

### **CONFIRMATIONS OF REGISTRATION WILL NOT BE SENT!**

Pre-registration must be postmarked by February 7, 2025.

### On-Site Registration:

All conference attendees must obtain a name badge and conference material at the registration desk. If you do not pre-register, please make sure that you register as soon as possible after you arrive at the Keller Convention Center. \*\*Please note that on-site registration is \$25.00 higher than pre-registration.\*\*

An event membership of one-cent per person is included in your registration fee(s) allowing participants in NRWA fundraising activities. This is required by Federal Election Commission laws. If you wish to opt-out, please go to the registration booth at the conference for your refund of this one-cent fee.

### CANCELLATION & REFUNDS

Refunds only in the event of emergencies. We must have a written notice of cancellation to issue a refund. You may e-mail Heather—[ilrwahm@ilrwa.org](mailto:ilrwahm@ilrwa.org).

### REGISTRATION HOURS

#### Pre-Registration Pickup ONLY

Monday, February 17 4:00 p.m. - 6:00 p.m.

#### Regular Registration Hours

Tuesday, February 18 8:00 a.m. - 4:00 p.m.

Wednesday, February 19 8:00 a.m. - 3:00 p.m.

### EXHIBIT HALL

Over 100 companies from all areas of the water and wastewater industry will be on hand to help solve your problems and provide you with the information you need to make those crucial decisions.

The exhibit hall will be open during the following hours:

Tuesday, February 18 10:00 a.m. - 4:00 p.m.

Wednesday, February 19 8:00 a.m. - 3:00 p.m.

### OTHER ACTIVITIES

#### Exhibitors Hospitality Night

Tuesday, February 18 4:30 p.m. - 7:00 p.m.

All food and beverages for the evening is provided by our exhibitors.

#### Pub Crawl

Tuesday, February 18 7:00 p.m. - 12:00 a.m.

Thank you to the City of Effingham for their continued support of the pub crawl! The buses will begin picking up at the Holiday Inn at the conclusion of Hospitality Night.

#### Casino Night

Wednesday, February 19 6:00 p.m. - 9:00 p.m.

### CERTIFICATION OVERVIEWS & EXAMS

Certification overview courses and state certification exams for drinking water and wastewater will be held at the conference. The reviews will be given courtesy of E.R.T.C. on Wednesday, February 19, 2025. The review is included with your conference registration.

The exams will be given on Thursday, February 20, 2025 beginning at 8:30 a.m. It will be available for attendees and non-attendees alike. You must have a valid **Letter of Admission** issued by the IEPA. You **must** bring the Letter of Admission and a photo ID. There are no conference fees associated with the exam. **However, you must return a registration form with the exam you will be taking circled.**





# 43rd Annual Technical Conference

## February 18-20, 2025

### ATTENDEE REGISTRATION FORM

Please complete one form for each attendee

Make check payable to: Illinois Rural Water Association  
P.O. Box 49, Taylorville, IL 62568  
You may also pay on-line at [www.ilrwa.org](http://www.ilrwa.org) with a credit card

FIRST NAME: \_\_\_\_\_ LAST NAME: \_\_\_\_\_

SYSTEM: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE \_\_\_\_\_ ZIP: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_ E-MAIL ADDRESS: \_\_\_\_\_



#### FULL REGISTRATION: (Includes technical sessions, exhibit hall, meals & activities for all 3 days)

- Member—\$190.00
- Spouse—\$190.00
- Non-Member—\$240.00
- Non-Member Individual Joining as a Member + Conference—\$219.00

#### ONE DAY REGISTRATION: (Includes technical sessions, exhibit hall, meals & activities for 1 day only)

- Member—\$165.00
- Spouse—\$165.00
- Non-Member—\$215.00
- Non-Member Individual Joining as a Member + Conference—\$194.00

#### PLEASE CIRCLE WHICH DAY YOU WILL BE ATTENDING (for one day registration only)

TUESDAY                      WEDNESDAY                      THURSDAY



#### WATER CERTIFICATION EXAM—PLEASE CIRCLE WHICH EXAM YOU ARE TAKING (if applicable)

CLASS A      CLASS B      CLASS C      CLASS D

#### WASTEWATER CERTIFICATION EXAM—PLEASE CIRCLE WHICH EXAM YOU ARE TAKING (if applicable)

CLASS I      CLASS II      CLASS III      CLASS IV

**Registrations must be postmarked by February 7, 2025 to receive pre-registration pricing**

**\*\*All fees must be paid when registering—no purchase orders or special billings\*\***



**NO REFUNDS AFTER FEBRUARY 7, 2025**

**CONFIRMATIONS OF REGISTRATION WILL NOT BE SENT!**

**Have a Question?  
Call 1-800-762-3547**

# Conference At A Glance

**Tuesday, February 18 - Registration Open: 8:00 a.m.— 4:00 p.m. 4.0 Water Credit/3.0 WW Credit Hours**

9:00 a.m.	<i>Opening Session/Awards Ceremony</i>		
10:00 a.m.	<i>Break/Exhibit Hall Opens</i>		
	<b>WATER</b>	<b>WASTEWATER</b>	<b>BREAKOUT</b>
11:00 a.m.	IEPA Update		
12:00 p.m.	<i>Lunch Buffet—Ticket Required</i>		
1:00 p.m.	PFAS Litigation—Water/Wastewater/ Surface Water Microplastics*	Rural Communities Benefit from Low Energy Algae Wastewater Treatment to Meet New Ammonia Limits	Billing Software/Water Loss Analysis
1:45 p.m.	CBRNE Awareness*	DMR Guidance	Advantages of Low Flow and Identifying Leaks
2:30 p.m.	<i>Break/Exhibitor Drawings</i>		
3:00 p.m.	Funding Your Next Project*	Simplifying Filtration for Smaller WWTP's	Asset Management
3:45 p.m.		EPA PFAS Test Methods and Regulatory Update for Wastewater Professionals	The Magic Box— Gravity Filtration
4:30 p.m.	Water Taste Test		Annual Meeting

**Wednesday, February 19 - Registration Open: 8:00 a.m.— 3:00 p.m. 5.5 Water or WW Credit Hours**

8:00 a.m.	<i>Exhibit Hall Opens</i>		
9:00 a.m.	Maintenance on Water Treatment Equipment	Ultraviolet Disinfection for Municipal Applications*	Water Math Review (9:00—11:00)
9:45 a.m.	Generator Operation and Maintenance*	Recirculating Expandable Granular Bioclarifier, Single Step Wastewater Treatment	
10:30 a.m.	<i>Break/Exhibitor Drawings</i>		
11:00 a.m.	J.U.L.I.E. Law—New Legislation*	Sludge Management for Lagoons	
12:00 p.m.	<i>Lunch Buffet</i>		
1:00 p.m.	Digitization and AI for Small and Mid-Sized Water & Wastewater Utilities*	Wastewater Interferences	Disinfection and Softening Review
1:45 p.m.	Simplifying Utilities: Harnessing User-Friendly Technology for Everyday Convenience*	Submersible Pump Maintenance and Bar Screening	
2:30 p.m.	<i>Break/Exhibitor Drawings</i>		
3:00 p.m.	Lead & Copper Updates	Maintenance for Lift Stations	Basic Wastewater Math (2:45—4:00)
3:45 p.m.	Reservoir Destratification	The Truth About Beneficial Reuse	

**Thursday, February 20 3 Dual Credit Hours**

7:30 a.m.	<i>Breakfast Buffet—Convention Center C &amp; D</i>		
8:30 a.m.	Solar Considerations for Water & Wastewater Facilities*	<b>WASTEWATER CERTIFICATION EXAM Roosevelt Room (until 11:30)</b>	<b>WATER CERTIFICATION EXAM Convention Center A &amp; B (until 1:30)</b>
9:15 a.m.	Utility Line Strike Prevention Methods Past & Present*		
10:00 a.m.	<i>Break</i>		
10:15 a.m.	Readiness Against the Rising Tide of Industrial Cyber Attacks*		
11:00 a.m.	Confined Space Safety*		
11:45 a.m.	<i>Closing Ceremony/ Grand Prize Drawing</i>		



# *The Challenges of being a Water Operator and System Manager*

*by Casey Johnson,  
IRWA Board Member - District 8*

The water industry is quite honestly unlike any other job or career I have ever been around. I came from the highway construction industry and it had its share of challenges and stressful situations that I am thankful for as it did help with my transition into being a water operator and system manager. We all handle stress differently and deal with the day-to-day workload in our own way.

When I first started with the Anna-Jonesboro Water Commission, we immediately began a water plant rehab all while trying to continue treating drinking water 24 hours a day. I was also on the clock to get my Class A water license within a specific time frame as the previous operator was looking to retire. I had never worked around water in my life and I had no idea what I was really diving into. But this was by far the best education that I could have gotten as a new water operator... somewhat like old saying of being baptized under fire. I had little experience at managing a facility, water system or a large-scale budget and even less experience in managing staff, a board of directors and working with the public. I was also tasked as becoming the ROINC and carrying the constant burden of being responsible for my community and neighboring communities drinking water and for answering to the Illinois EPA. That is just the typical day for most water operators and system managers and what those individuals manage daily.

Some questions that we often ask ourselves in this business: Have we done everything we can to be prepared to manage whatever the specific issue may be? Have we done all we can to ensure that we are treating the drinking water effectively and safely? Do I learn from my mistakes? Is there someone I can call when I have an issue or need advice? Is my plant and system operating to the best of its abilities? Does my staff have concerns on what we are doing? Is my board getting frustrated with me or am I getting frustrated with them? Do I have the budget and rates correctly set for the upcoming year or years?

For example, as we are entering the winter weather season and there is a chance of snow and ice as I am writing this, I have found myself monitoring the weather to ensure how it will affect plant operations. Will my operators be able to safely make it

to the water plant in the event of an ice storm or snow storm? Will our generators kick on and transfer power if we get a lot of power line damage? Will our outdoor plant operations hold up in the freezing temperatures? Can our lime delivery truck get to the lime silo so he can unload? Are our residential water meters insulated and the meter lids sealed up? That's a lot of questions to ask yourself but I think I have the answer that I need to each specific one at this given moment and that gives me the peace that I am doing the best I can and I have prepared to the best of my ability to manage each of those particular challenges.

Water operators have the unique ability to be flexible and think on the fly. Water operators are masters of trying to hit the moving target. Rarely are we caught up on paperwork or ahead of schedule on maintenance. We tend to do our best work when the pressure or stress are at their highest moment. I have yet to meet an operator who wants glory or applause... they just find a way to do the work and get the job done. The responsibility of treating drinking water is not for everyone and if it were easy everyone would do it. But I personally take great pride in what we do and I have learned to manage that responsibility and stresses associated with it in my own way. This is not all doom and gloom as it may sound. All water operators know what they signed up for and they are willing to accept these daily challenges. It is truly a thankless job and stressful career at times but it is by far the most rewarding career one could ever be involved in and a career that is constantly challenging its professionals. Good thing because I happen to like a good challenge! 💧



will be issued. This letter is good for 1 year of the issued date. All examination requests need to be submitted at least 30 days prior to the examination date. Each certification level requires a passing score of 70% or higher on the corresponding examination, graduation from high school or equivalent. You will need to have a non-programable calculator. You are allowed to take the exam 4 times in a calendar year.

Once you have successfully passed the exam whether you have the required experience or not you will be an Operator in Training. This designation is for 6 years and is intended to gain the hands-on experience needed to be eligible for full certification. No continuing education is required in this 6-year period. If the operator already has the hands-on experience needed, they will need to fill out the Application for Certification as a Community Water Supply Operator. (<https://epa.illinois.gov/topics/forms/water-forms/drinking-water-operator.html>) You will need to Register on the Illinois EPA operator certification Database. You can fill out your application there as well. (<https://dataservices.epa.illinois.gov/operatorcertification/Anonymous/Search.aspx>)

You will then need to submit this application along with \$30.00 application fee to the Illinois Environmental Protection Agency.

Testing dates as of the time I am writing this are as follows for the year. All examinations will begin at 9:00 a.m. and end at 2:00 p.m. You must call the Testing Site to reserve a seat. You must have a Letter of Admission and a photo ID to enter the exam room.

### Des Plaines Office

Monday, January 6	Monday, February 3
Monday, March 3	Monday, April 7
Monday, May 5	Monday, June 2
Monday, July 7	Monday, August 4
Monday, September 8	Monday, October 6
Monday, November 3	Monday, December 1

### Springfield Headquarters

Dept of Agriculture John R Block Bldg 801 E Sangamon Ave. Springfield, Illinois

Wednesday, January 15      Wednesday, February 5

All other dates and locations for Springfield are to be determined.

### Marion Regional Office

Tuesday, January 7      Tuesday, February 4

Tuesday, March 4      Tuesday, April 1

Tuesday, May 6      Tuesday, June 3

Tuesday, July 8      Tuesday, August 5

Tuesday, September 9      Tuesday, October 7

Tuesday, November 4      Tuesday, December 2

### Rockford Regional Office

Thursday, January 9      Thursday, March 13

Thursday, May 8      Thursday, July 10

Thursday, September 11      Thursday, November 13

### ERTC/Champaign Regional Office

Tuesday, February 4      Tuesday, April 8

Tuesday, June 10      Tuesday, August 12

Tuesday, October 7      Tuesday, December 9

So that is the shortened answer on the road to becoming certified. I hope this is a help for those with questions or concerns. If you have any other questions on the road to certification, feel free to contact the Circuit Rider in your area and they can answer your questions. We hope to see you all at our upcoming trainings around the State as well as our Annual Conference in February 18-20, 2025 at the Thelma Keller Convention Center in Effingham. 💧



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