



**Mark Your Calendar**  
**By: Don Craig, Deputy Director**

**December 2019  
Newsletter**

**Water  
Quality  
Protection  
Education  
Research  
Development  
Innovation  
Partnership  
Collaboration  
Leadership  
Commitment  
Excellence  
Sustainability  
Resilience  
Inclusivity  
Transparency  
Accountability  
Integrity  
Trust  
Communication  
Community  
Engagement  
Stakeholder  
Involvement  
Data  
Driven  
Decision  
Making  
Continuous  
Improvement  
Flexibility  
Adaptability  
Innovation  
Growth  
Success**

The Illinois Rural Water Association's annual technical conference in Effingham is just around the corner. This will mark our 38<sup>th</sup> year doing the show, and will run from Tuesday, February 18<sup>th</sup> through noon on Thursday, February 20. And as most of you may already know... it is the 'main event' for our association. As usual, our host hotel, the Holiday Inn is already sold out. But, of course, there are many nice hotels within walking distance of the Keller Convention Center.

At the time of writing this article in late November, the exhibitor registration has already opened just a few days prior. As in the past, our associate member vendors, get first chance at acquiring a spot in the exhibition areas for the convention. Our member water and wastewater systems throughout the state will soon be receiving notification of the event, for preregistration. We continue to urge all those planning to attend, to not procrastinate in getting their registrations into our office, and look forward to another large crowd of attendees, as in years past. If you have not had the opportunity to attend our conference in prior years, I would strongly suggest you make every effort to come and take part. We strive to put on a good show, and make all our attendees welcomed not only with quality training and an inner-active exhibit hall, but also by providing good social events for all, and leaving looking forward to come the following year.

The attendee agenda will be included with registration notices going out soon, and also will be available online from our website at: [www.ilrwa.org](http://www.ilrwa.org). As always, there will be a host of different water and wastewater session topics presented from various speakers. And again this year, there will be the opportunity for operator certification reviews and testing.


As always, it takes the combined effort and attendance of all our various types of IRWA members, to continue to make the yearly happening, good and successful for all involved. But also, it takes a lot of work from our entire staff and board members to participate and take on the challenges of conducting such an annual

endeavor.

To say the least, it is not an easy task.

But, it is an important undertaking, and a viable tool for our association as a whole. The public relation value, education factor, and inner-networking put forward during the course of the event, benefits not only those attending, but the core integrity of an organization that continues to be committed to being the leader in providing training and technical assistance to rural water and wastewater systems throughout the state.


**38th Annual Technical Conference**



**VISIONS OF RURAL WATER**

- **13 water credit hours available**
- **6 wastewater credit hours available**
- **115 exhibitors**
- **Cash prizes donated by exhibitors**
- **Sportsman's raffle**
- **Best tasting water contest**

Watch for registration information along with details on scholarships, how to enter the best tasting water contest, and the Annual meeting notice coming to a mailbox near you soon!



**IRWA'S MISSION STATEMENT**

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



## Ten Months and Still Plugging Away

By: Dave McMillan, Training Specialist

In my first article, I discussed my excitement in getting the opportunity to continue to work in the water industry as the Association's Training Specialist. So far, the position has been all that I hoped for and more. From March 1, 2019 through November 30, 2019, the Association held twenty-one cost-free training programs in twelve different communities attended by almost seven hundred water supply officials. The programs focused on distributed water quality. Specific coursework included: flushing; tank inspection/maintenance; pump system reliability; disinfection by-product control; disinfectant control (including a focused program on ammonia issues in ground-water); corrosion control (including lead concerns); emergency planning; and water supply design/operation/maintenance regulatory matters. Overarchingly, these topics, trainers, and the locations received high marks from the attendees.

I cannot sufficiently express my gratitude to the dedicated individuals that continually give back to the industry that has formed our careers. The knowledge base that experts from regulatory agencies, the chemical/services industries and consultants have is truly astounding. It goes without saying that these training programs would not have been successful without the support of this group of volunteers and host locations. I would also be remiss if I did not mention the support that the Association has received from other training providers in the state. Partnerships with Local Operator Groups, Southern Illinois University-Edwardsville's Environmental Resources Training Center and the Illinois Section of the American Water Works Association continue to pay dividends in the form of additional education opportunities afforded to water supply officials.

In the future, the Association intends to continue to focus training programs on water quality concerns that may impact compliance. Because of the difficulty that many water supplies will have in achieving the high standards established in the new Illinois regulatory requirements, focus will necessarily include continued discussion of disinfectant residuals, corrosion control and nitrification

control. Additionally, attendees should anticipate more "hands on training" regarding repair, operation and maintenance items/activities which can play a major role in the ability to supply safe and adequate quantities of water to consumers.

Ideally, the Association hopes to continue the current practice of providing four to five hours of cost-free continuing education credit per training program. We anticipate providing these opportunities roughly twenty times per year with a goal of make at least one training program available within an hour and a half of every Illinois water supply (please see our website for the most recent information on training programs: <http://www.ilrwa.org/Training/watertraining.html>). Since we are all creatures of habit, the Association is also trying to focus training on the first and second Tuesdays of the month. With luck, each program will have a regulatory element as well as an operational or maintenance component.

Finally, since the Association is committed to distributing consistent high-quality training sessions throughout the state, it is necessary for session topics to be repeated at multiple locations. Following every training program, students are provided continuing education forms that include course titles, descriptions and tracking numbers. It is imperative that water supply officials maintain these records and check them when signing up for future programs (particularly if you are considering traveling a distance to build up your CEUs). If in doubt, call the office to verify the course identifiers are not overlapping.

Again, never hesitate to let me know where we should be headed in future training efforts. As I said in my first article, my hope is that I can assist the Association in executing training programs that are relevant and informative. We will do our best to tap into the industries very best leaders to get you the information you need to keep our drinking water safe and flowing.

I look forward to seeing you all soon---- Dave





## Tank Inspections

By: Roger Noe, Circuit Rider

This past year I have had a lot of questions about tank inspections on how often and who should the water facility have to inspect their tank. I have seen tanks that are leaking water and cosmetically looking in poor condition. The water storage tank is one the first things that the general public notices at the water facility. The water storage tank is one of most important asset for the water facility. The recommended frequency of tank inspections is every 3-5 years. Tanks and towers should periodically be inspected and cleaned to help maintain water quality and extend the life of the tank. Regular tank inspections can identify small problems that will eventually lead to major problems if not detected in a timely manner. That could lead to major costly repairs, premature tank failure, or contamination event that can harm human health issues. There are four type of inspections that can be performed: visual inspection, remote operated vehicle (ROV), dive inspections, and washout inspections.

Visual inspection is the easiest of the inspections that is performed for the water storage tank. The tank is climbed and visually looked inside the tank and a recording what is being seen in the tank is documented. Photos of the roof, walls, and bottom of tank are taken. The advantage of this inspection is tank remains in service and inexpensive compared to other inspections. The disadvantage of this inspection is interior coating cannot be fully inspected and a coating touchup would not be able to be performed. Inorganic materials are difficult to detect and sedimentation on the bottom of tank would not be able to be removed. You can also use a drone to visually inspect the outside of the water storage tank. This inspection would only give you the basic knowledge of your water storage tank.

Remote operated vehicle inspections are performed with an unmanned submersible which is put in the tank while the tank is full of water. The ROV is in the water capturing photos of the walls and bottom of the tank to document coatings and the structural material. The advantage of the ROV is that the tank remains full and most of the area can

be inspected. The disadvantages are coatings touchups cannot be performed, sedimentations cannot be removed, and some interior blistering of the coating may not be detected.

Dive inspection is performed when a diver dives into the tank while the tank is full of water. The diver will take photos of the roof, wall, and bottom of the tank. The advantages are that the tank remains full, most areas can be inspected, and sedimentations can be removed. The disadvantages are some blistering of the coating could be hard to detect, chemical cleaning cannot be done, and inorganic materials are difficult to detect. The divers suit and equipment needs to be completely disinfected before entering the water.

Washout inspection is performed by draining the tank and the crew enters the tank for the inspection. The crew takes photos of the roofs, walls and other structures inside of the tank. The tank can be washed out of any sediment material at the bottom of the tank. The disadvantage is that the tank must be drained and taken out of service. Advantages are that this is the most complete assessment which can be performed, sediment is removed, coatings touchups can be performed, and chemical cleaning can be done.

Safe potable water delivery is the main purpose of the water storage tank. Whichever inspection is performed it will help to determine the interior and exterior condition of the tank. Each tank inspector should provide detailed photos and a report of the inspection. IEPA does not require a permit to inspect, clean, or paint a tank. However, a permit is required if any modifications are made to the tank. Disinfection of the tank is required and samples should be collected for absent coliform. A boil order must be issued if the tank is put into service before the samples have passed a coliform test. The water system should contact their regional office about the tank inspections which is being performed.



Be sure to check out our website at [www.ilrwa.org](http://www.ilrwa.org) for upcoming training sessions, informative hand outs, downloads, legislative information, etc.

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**QUALITY ON TAP**



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**GPS/GIS MAPPING SERVICES**

Through the implementation of GPS & GIS technology, IRWA can effectively produce hard copy and digital maps. With this service available from IRWA, utilities can attain new and accurate maps to better manage their water, wastewater, and storm sewer assets.

The printed maps can be large-scale wall maps up to 36"x48" showing utility features with the desired layers (aerial photos, streets, topography, etc.).

The digital map files on a CD, can be viewed and printed with free software that IRWA will provide and install on a utility computer. The software allows you to view and click on a system feature (such as a valve, hydrant, meter pit, curb stop, manhole, lift station, treatment facility, etc.), and pull up attribute data about each...as well as several other capabilities such as printing, zooming, etc.

Also, IRWA has a working relationship, with DiamondMaps.com, to put your IRWA project maps, on their server, for mobile viewing with a smartphone or cellular capable tablet...including editing capability. This is at no extra charge to the system for the first year's subscription. Continuance of the Diamond Maps service after the first year, is at the utility's discretion.

Payment for GIS services, is a set charge per feature, with IRWA members receiving an automatic 30% discount, and even more of a reduction with bigger projects. More information is also posted on our website at: [www.ilrwa.org](http://www.ilrwa.org), or you may call our office at 217-287-2115.

